



*Office of the Auditor General/ Bureau du vérificateur général*

**AUDIT OF PERFORMANCE MEASUREMENT**

**2011**

**VÉRIFICATION DE LA MESURE DU RENDEMENT**



## Table of Contents

EXECUTIVE SUMMARY .....	i
RÉSUMÉ.....	xv
1 INTRODUCTION .....	1
2 BACKGROUND.....	1
3 AUDIT SCOPE AND OBJECTIVES .....	2
4 OBSERVATIONS AND RECOMMENDATIONS.....	4
5 POTENTIAL SAVINGS .....	60
6 CONCLUSION.....	60
7 ACKNOWLEDGEMENT.....	61



## **EXECUTIVE SUMMARY**

### ***Introduction***

The Audit of Performance Measurement was included in the 2011 Audit Plan of the Office of the Auditor General, first approved by Council on April 13, 2011.

### ***Background***

Implementation of various measurement frameworks at the City, since 2001, has been largely incomplete and progress has been uneven across City business units in utilizing key performance indicators. The City's Strategic Branch Review (SBR) initiative is a case in point. In 2008, Council approved the Strategic Branch Review concept and at the end of 2008, seven branches had completed a Strategic Branch Review. In 2009, the Audit, Budget and Finance Committee recommended that Strategic Branch Review be incorporated in the development of the departmental service excellence plans. In May 2011, Council adopted the Corporate Planning Framework (Ref. No. ACS2011-COS-ODP-0007) which replaces the existing Performance Management and Reporting Framework, the Integrated Planning Framework and the Strategic Branch Review Process.

Key performance indicators have been reported to Council on a quarterly and annual basis over the past decade using various frameworks, including the Ontario Municipal Benchmarking Initiative (OMBI). Performance indicators have also been introduced as a component of the annual budget package supporting Council decision-making. However, the degree to which Council relies on performance indicator data in making budget decisions is unclear.

The City is currently rolling out a new Balanced Scorecard performance measurement framework. Eighteen departmental strategic plans will be prepared to link the term of Council strategic priorities with operational activities across the City. The departmental strategic plans will each contain a Balanced Scorecard, with measures and targets that will be used to measure and report results.

The audit has assessed the appropriateness of the new City Balanced Scorecard approach and provides recommendations to help Management fine-tune the key performance indicators used in Balanced Scorecard. Finally, the audit also provides a cost/benefit perspective on whether the City should continue to participate in the OMBI.

### ***Audit Objectives and Scope***

The scope of the audit encompassed a review of selected Key Performance Indicators (KPI) currently in use across several City programs including Drinking Water, Public Works, Solid Waste, Recreation, Social Housing, Fire Services, Wastewater and Information Technology. The scope did not include an exhaustive review of every KPI but rather, given the City's decision to adopt the Balanced

Scorecard framework, it was focussed on providing advice and recommendations for the move to this model.

*Objective 1* - Performance measures and time series data reported to Council, Management and external stakeholders are *accurate* and *properly valued*.

*Objective 2* - The City's Balanced Scorecard corporate performance measurement framework *appropriately aligns* Council led strategic planning, departmental operational planning, budget decision support and results reporting requirements.

*Objective 3* - Performance measures and time series data reported to Council, Management and external stakeholders are *complete*.

*Objective 4* - Key performance indicators (derived from a representative cross-section of City services and support functions) are *appropriate and relevant from a design perspective* - in terms of operational planning and target setting, budget decision support, and results based accountability reporting.

*Objective 5* - The City understands the cost/benefit relationship associated with performance measurement framework and indicator design, implementation and ongoing tracking/reporting. The benefits accruing in terms of service delivery results/accountability improvement have been demonstrated outweigh the ongoing direct and opportunity costs of measurement.

*Objective 6* - The City's involvement in OMBI features relevant and appropriate key performance indicators, clear and compelling performance data stories, and a return on investment characterized by the adoption of evidence-supported best practices in service delivery supplied by OMBI peers.

### **Summary of Key Findings**

1. The high level of data re-entry and manipulation currently required in the areas audited creates risks for accuracy when calculating key performance indicators. Enhanced automation and effective implementation of the new Business Intelligence tool are needed to mitigate these risks.
2. For the operating cost per ML of treated drinking water measure, the difference between the OMBI value (106,799 ML) and the value identified during the audit (106,523 ML) is 0.26%. Given this is less than a 1% difference, we believe this difference to be negligible.
3. The measure of response rate to 3-1-1 calls for traffic signal failure as reported in the Service Excellence Scorecard was found to be accurate.
4. The Operating cost per km - other vehicles (light and heavy) as reported in the Quarterly Performance Report to Council was found to be accurate.
5. The City's approach to the Balanced Scorecard is organizational-structure based rather than program/service based. As such, there is the risk that the Balanced

Scorecards will not measure performance at the service or program level. Management has indicated that Departments are currently developing their strategic plans and Balanced Scorecards to support the achievement of the term of Council strategic priorities, objectives and initiatives. These plans will also include critical operational priorities that relate to services delivered by branches, and thus, performance measures will be incorporated into the departmental strategic plans and scorecards. For the Balanced Scorecard model to be effective, it is important that they are linked to departmental plans and operational priorities as well as Council priorities.

6. The focus of Balanced Scorecards in each of the areas audited should be as follows:
  - a) The National Solid Waste Benchmarking Initiative for Solid Waste;
  - b) The Special Performance Report prepared for the audit for Parks, Recreation and Culture;
  - c) The Social Housing Corporation performance measurement database and the Asset Management toolkit and forecasting for Housing;
  - d) The Monthly Dashboard, the Annual Report and the Commission on Fire Accreditation International (CFAI) self-accreditation initiative for Fire Services;
  - e) The National Water and Wastewater Benchmarking Initiative for Water and Wastewater; and,
  - f) The Gartner benchmarking and performance measurement process for IT Services.
  
7. The Ontario Municipal Benchmarking Initiative (OMBI) has not delivered the continuous improvement benefits referenced in its original mandate/mission. Best practice opportunities are not emerging from the complexities of OMBI accounting. Redeploying City staff effort and resources associated with OMBI towards more promising benchmarking and performance measurement projects should be pursued.

## ***Recommendations and Management Responses***

### **Recommendation 1**

**That the City maintain an audit trail including source documents, and calculations that demonstrate how the performance measures were calculated, and from where the data was gathered.**

**Management Response**

Management agrees with the recommendation.

Since the time of this audit, the performance measurement exercise within Drinking Water Services (DWS) was modified to improve the audit trail as recommended. All DWS files will now be provided to Finance. No further action is required.

**Recommendation 2**

**That the City consider how the new Business Intelligence (BI) tool can help improve efficiency in this process, and should the BI tool be utilized further, ensure the tool is communicated and applied to other performance reporting process where appropriate.**

**Management Response**

Management agrees with the recommendation.

There is currently no budget allocation for investment in additional Business Intelligence tools for the corporation. Corporate Business Services will conduct a cost-benefit analysis to determine the feasibility of extending the current Business Intelligence tool for broader use across the corporation and will provide recommendations to the City Manager by the end of Q2 2012. If and when an additional investment is made in Business Intelligence tools, the appropriate information will be communicated to the relevant management and staff across the corporation.

**Recommendation 3**

**That, where feasible, the City automate repetitive processes (the balanced scorecards prepared by Public Works are an example of the use of automation in extracting and manipulating data in Excel).**

**Management Response**

Management agrees with the recommendation.

Corporate Business Services is currently designing a new data-gathering and reporting process to report on Term of Council Priorities. This work will be completed by the end of Q4 2012 and will, where feasible, automate repetitive processes. The extent of automation also depends on business intelligence investment decisions as outlined in the management response to Recommendation 2. If additional investment in Business Intelligence tools is not feasible, Corporate Business Services will explore other options by the end of Q4 2012.

#### **Recommendation 4**

**That Public Works continue developing and using the Service Excellence Scorecards, ensuring the measures reported provide value to Management, targets are set and compared to actual, and that where feasible, the Scorecards are standardized in their format.**

##### **Management Response**

Management agrees with the recommendation.

In conjunction with the roll-out of the Corporate Planning Framework departmentally, Scorecards will be enhanced and standardized in their format to ensure they provide value to management. This will be completed by Q4 2012.

#### **Recommendation 5**

**That the City look to the automation incorporated in the Scorecards as an example for improvements in other branches.**

##### **Management Response**

Management agrees with the recommendation.

The City is in the process of developing corporate and departmental Balanced Scorecards to report on its strategic priorities. Corporate Business Services will investigate the Scorecards currently in use at Public Works by the end of Q3 2012 and will identify automation that could be applied to other branches. The extent of Scorecard automation depends on business intelligence investment decisions as outlined in the management responses to Recommendations 2 and 3.

#### **Recommendation 6**

**That Fleet Services make better use of the automated control by programming reasonable thresholds within the M5 system that will flag potentially inaccurate mileage.**

##### **Management Response**

Management agrees with the recommendation.

The Maintenance Group has recently completed an annual review process of the thresholds. There are applicable advanced capabilities within the M5 system that address this recommendation and, as part of continuous improvement initiatives, staff training will be put in place by Q1 2013 to ensure these capabilities are utilized.

#### **Recommendation 7**

**That Fleet Services incorporate automation in performance measurement reporting where feasible.**

**Management Response**

Management agrees with the recommendation.

An intradepartmental team has been developed, consisting of staff from the Fleet Services branch and the Business Services branch to incorporate automation in performance measurement reporting where feasible. This will be completed by the end of Q4 2012.

**Recommendation 8**

**That Fleet Services participate in the Service Excellence Scorecards initiative within Public Works.**

**Management Response**

Management agrees with the recommendation.

An intradepartmental team, consisting of staff from the Fleet Services branch and the Business Services branch, is working to further develop the monthly Service Excellence Scorecards to include monthly reports for Fleet Services.

The Fleet Services Management Team is championing the development of Strategy Maps and the Balanced Scorecards emphasizing the culture of Service Excellence and accountability within the branch and in keeping with departmental and corporate initiatives.

The development of monthly Service Excellence Scorecards for Fleet Services will be completed by Q4 2012.

**Recommendation 9**

**That Fleet Services, prior to correcting the erroneous mileage, verify the reason for the error and the actual mileage.**

**Management Response**

Management agrees with the recommendation.

A comprehensive review of the reasons for erroneous mileage was undertaken by Fleet Services that revealed the main cause to be incorrect codes in the Fleet Management System (see Recommendation 6) and human error (either entering the vehicle specification information or staff fuelling vehicles).

As noted in the management response to Recommendation 6, steps will be taken to optimize the thresholds in Fleet's Management Information System. In addition, in late 2011 Fleet Services launched a communications campaign to inform clients of the importance of accurate meter readings and to remind supervisors of their responsibilities for ensuring compliance. As part of this campaign to improve mileage reporting, posters were developed and will be affixed to all City fuelling stations across the City by Q3 2012. Finally, the City is updating the fuel system software that will allow for more interactive exchange

with staff fuelling vehicles, which will greatly increase the accuracy of mileage being manually inputted.

### **Recommendation 10**

**That the City examine the possible benefits of the Business Intelligence tool to all potential users, and build in the necessary functionality to assist in performance measurement reporting wherever it is cost beneficial.**

#### **Management Response**

Management agrees with the recommendation.

As per the management response to Recommendation 2, there is currently no budget allocation for investment in additional Business Intelligence tools for the corporation. Corporate Business Services will conduct a cost-benefit analysis to determine the feasibility of extending the current Business Intelligence tool for broader use across the corporation and will provide recommendations to the City Manager by the end of Q2 2012. If and when an additional investment is made in Business Intelligence tools, the appropriate information will be communicated to the relevant management and staff across the corporation.

### **Recommendation 11**

**That, in developing the Balanced Scorecards, the City ensure they are aligned with departmental strategic plans and critical operational priorities as well as term of Council priorities.**

#### **Management Response**

Management agrees with the recommendation.

Departments are currently developing their strategic plans and Balanced Scorecards to support the achievement of the term of Council strategic priorities, objectives and initiatives. Their plans will also include critical operational priorities that relate to services delivered by branches, and thus, performance measures will be incorporated into the departmental strategic plans and scorecards. This recommendation will be implemented by Q4 2013.

### **Recommendation 12**

**That, in the development of the Balanced Scorecard, Solid Waste Management incorporate the scope and indicators from the National Solid Waste Benchmarking Initiative along with current quarterly reporting and contractor management indicators.**

### **Management Response**

Management agrees with the recommendation.

The Environmental Services department will review the quarterly reporting measures to determine the costs, benefits and select key performance indicators that, where feasible, will be incorporated into the departmental Balanced Scorecard by Q4 2012.

The National Solid Waste Benchmarking Initiative's solid waste indicators are currently being developed and once completed will be evaluated for incorporation into the departmental Balanced Scorecard by Q4 2013.

### **Recommendation 13**

**That, in the development of the Balanced Scorecard; Parks, Recreation and Cultural Services Management incorporate selected key performance indicators featured in the Special Performance Report prepared for the audit, including the portfolio of performance indicators focussed on program utilization and facility rental utilization.**

### **Management Response**

Management agrees with the recommendation.

The Parks, Recreation and Cultural Services department will undertake a cost-benefit analysis of selected key performance indicators as featured in the Special Performance Report prepared for the audit. Those with a positive cost-benefit analysis will be incorporated into the development of the departmental Balanced Scorecard by the end of Q4 2012.

### **Recommendation 14**

**That, in the development of the Balanced Scorecard, Social Housing Management incorporate selected performance measures from:**

- a) the scope/indicators present in the Social Housing Corporation performance measurement database;**
- b) the Asset Management toolkit and forecasting data;**
- c) existing provider reporting tools;**
- d) the continuous improvement implementation program associated with the Framework for Social Housing Standards; and,**
- e) the proposed Lifecycle Based Capital Investment Rating/Score.**

### **Management Response**

Management agrees with the recommendation.

The development of an operational Social Housing Management Balanced Scorecard will include selected key indicators from the five areas noted in the recommendation, grouped as follows: The Housing Services Corporation performance indicators for Service Managers, listed as item a); the framework of

the existing Housing Provider reporting tools, including the Social Housing Standards, listed as items b) and e); and the Asset Management Tool once the tool is fully implemented, the necessary reports developed and the data is available, listed as items c) and d).

This recommendation will be implemented by the end of Q4 2013.

### **Recommendation 15**

**That, in the development of the Balanced Scorecard, Fire Services Management incorporate selected performance measures from:**

- a) the scope/indicators present in the Monthly Dashboard;**
- b) the Annual Report;**
- c) the CFAI self-accreditation initiative; and,**
- d) the proposed new Performance Indicators:**
  - **90<sup>th</sup> percentile response times for fire, rescue and CTAS 1-2 medical calls;**
  - **total operating cost (including vehicle and capital depreciation/reserve charge) per in-service vehicle hour; and,**
  - **% medical calls featuring a delivered medical intervention by firefighters.**

### **Management Response**

Management agrees with the recommendation.

Fire Services is presently measuring and reporting on the majority of items identified in the recommendation.

The Commission on Fire Accreditation International (CFAI) process currently underway will identify new performance indicators, while validating that the current performance indicators are captured and reported on using industry best practices. Ottawa Fire Services is committed to building a Balanced Scorecard based on its existing performance framework, the addition of performance measures that are identified through the accreditation process, and that where feasible align with the key performance measures identified in the Emergency and Protective Services departmental Scorecard. This recommendation will be implemented by Q4 2013.

Of note, the new guide under the Ontario Fire Marshall's Office has eliminated the "Ten in Ten minutes" response. The guide in place at the time of the audit fieldwork was replaced in late 2011 with the Official Guide Matching Resources, Deployment and Risk.

### **Recommendation 16**

**That, in the development of the Balanced Scorecard, Water Supply and Distribution Management incorporate the key performance indicators to the National Water and Wastewater Benchmarking Initiative as well as performance measures that are strategically aligned to public health outcomes rather than a narrower set of environmental outcomes.**

#### **Management Response**

Management agrees with the recommendation.

The Environmental Services department will review the National Water and Wastewater Benchmarking Initiative to determine the costs and benefits of using its water supply and distribution management related performance indicators. Those with a positive cost-benefit analysis will be incorporated into the development of the departmental Balanced Scorecard by the end of Q4 2012. In the development of the departmental Scorecard, the Environmental Services department will also consider performance measures that are aligned to public health outcomes. This will be completed by the end of Q4 2012.

### **Recommendation 17**

**That, in the development of the Balanced Scorecard, Wastewater Collection and Treatment Management incorporate key performance indicators of the National Water and Wastewater Benchmarking Initiative.**

#### **Management Response**

Management agrees with the recommendation.

The Environmental Services department will review the National Water and Wastewater Benchmarking Initiative to determine the costs and benefits of using its wastewater collection and treatment management related performance indicators. Those with a positive cost-benefit analysis will be incorporated into the development of the departmental Balanced Scorecard by the end of Q4 2012.

### **Recommendation 18**

**That, in the development of the Balanced Scorecard, IT Management incorporate the selected functional areas present in the Gartner benchmarking and performance measurement process.**

#### **Management Response**

Management agrees with the recommendation.

Information Technology Services will incorporate select Gartner functional areas into the departmental Balanced Scorecard by the end of Q4 2012.

**Recommendation 19**

**That, in all cases where it is to be implemented, the Balanced Scorecards include indicators by performance quadrant and quantitative performance targets (annual and beyond) to inform budget and operational decision-making.**

**Management Response**

Management agrees with the recommendation.

The City is in the process of developing corporate and departmental Balanced Scorecards within the Corporate Planning Framework to report on its strategic priorities. Corporate Business Services will ensure that by the end of Q2 2012 the corporate Scorecard will include indicators by performance quadrant and quantitative performance targets. All subsequent departmental Scorecards will follow the same approach.

**Recommendation 20**

**That, as the Balanced Scorecard model is implemented, the City monitor the efficacy and cost-benefit of continued participation in OMBI to determine if withdrawal from the initiative is warranted.**

**Management Response**

Management agrees with the recommendation.

The City will assess its involvement in the OMBI program in the context of the Balanced Scorecard implementation to determine the efficacy and cost-benefit of our continued participation. The determination as to whether withdrawal is warranted will be completed by the end of Q4 2013.

**Recommendation 21**

**That the City monitor the cost-benefit of the Balanced Scorecard model and any other performance measurement approaches in use to ensure associated resources remain necessary.**

**Management Response**

Management agrees with the recommendation.

Management agrees to assess the cost-benefit of future performance measurement approaches. However, management will not conduct a cost-benefit assessment on the current Balanced Scorecard model being implemented. The City has already made the decision through Council to proceed with the Balanced Scorecard model so it would not be practical or cost efficient to conduct a cost-benefit analysis. Going forward, Corporate Business Services will conduct a cost-benefit analysis on any future decision with respect to new performance measurement approaches.

## **Potential Savings**

Over the past decade, the City has devoted significant resources, particularly human resources, to various performance measurement initiatives. Unfortunately, there is little evidence to suggest that these measures have been used to inform budget and operational decision-making. As such, the cost-benefit of these activities has been questionable. It will be important for Management to monitor the usefulness of the new Balanced Scorecard program to prevent this from occurring again. In our view, if these activities are not generating the anticipated benefits, there is the potential for savings by discontinuing them.

## **Conclusion**

The risks associated with the technical accuracy when calculating key performance indicators stem largely from the high level of data re-entry and manipulation currently required in the areas audited. Enhanced automation and effective implementation of the new Business Intelligence tool are needed to mitigate these risks.

Council and Management are evolving towards a strategic planning/management model that aligns Council priorities, 84 strategic initiatives, 18 departmental strategic plans to link the term of Council strategic priorities with operational activities, and a new corporate Balanced Scorecard.

This model is appropriate and well designed from a traditional organization structure based management perspective. However, an expanded rollout for the corporate Balanced Scorecard initiative is required based on the 25-30 core services delivered by the City and consumed by taxpayers. These core service Scorecards will provide a critical value-for-money accountability link to the City budget process.

The audit of key performance indicators across a representative sample of City services demonstrates an opportunity for improvement in utilizing performance indicators for management purposes extending beyond traditional reporting. Performance indicators derived operational target-setting is limited across the sampled City business units. The existing performance indicators are diverse in terms of design and relevance, with many being unsuitable for inclusion in new Balanced Scorecards. If properly implemented, the new core service Scorecards recommended should address this shortcoming.

Finally, there is a compelling case for redeploying City staff effort and resources associated with OMBI towards more promising benchmarking and performance measurement projects. OMBI is not delivering the benefits and opportunities referenced in its original mandate/mission.

***Acknowledgement***

We wish to express our appreciation for the cooperation and assistance afforded the audit team by Management and City staff/analysts.



## RÉSUMÉ

### ***Introduction***

La Vérification de la mesure du rendement était incluse dans le plan de vérification de 2011 du Bureau du vérificateur général, approuvé d'abord par le Conseil, le 13 avril 2011.

### ***Contexte***

La mise en œuvre de divers cadres de mesure à la Ville, depuis 2001, s'est avérée incomplète dans l'ensemble et l'utilisation d'indicateurs clés de rendement dans le Service des affaires municipales de la Ville n'a pas progressé partout au même rythme. L'Examen stratégique de la direction (ESD), une initiative de la Ville, illustre bien la chose. En 2008, le Conseil en a approuvé le concept et, à la fin de 2008, sept directions avaient procédé à un ESD. En 2009, le Comité de la vérification, du budget et des finances a recommandé que l'ESD soit intégré à l'élaboration des plans d'excellence du service des divers services municipaux. En mai 2011, le Conseil a adopté le Cadre de planification municipale (Réf. ACS2011-COS-ODP-0007) qui remplace le Cadre de gestion et de mesure du rendement existant, le Cadre de planification intégrée et le processus d'Examen stratégique de la direction.

Au cours de la dernière décennie, sur une base trimestrielle et annuelle, on a fait rapport au Conseil sur divers indicateurs clés de rendement, fondés sur des cadres d'évaluation variés, notamment l'Initiative d'analyse comparative des services municipaux de l'Ontario (IACSM). Des indicateurs de rendement ont également été introduits comme composante de la trousse budgétaire annuelle en appui au processus décisionnel du Conseil. Toutefois, la mesure dans laquelle le Conseil se réfère à ces indicateurs pour prendre des décisions budgétaires n'est pas claire.

La Ville est en train d'implanter un nouveau cadre de mesure du rendement : le Bulletin de rendement équilibré. Dix-huit services prépareront des plans stratégiques pour arrimer les priorités stratégiques du mandat du Conseil aux activités opérationnelles de toute l'administration municipale. Les plans stratégiques des services comprendront chacun un bulletin de rendement équilibré assorti de mesures et d'objectifs qui seront utilisés pour évaluer et rendre compte des résultats.

Dans le cadre de cette vérification, nous avons évalué la pertinence du modèle du Bulletin de rendement équilibré et formulé des recommandations pour aider la direction à en préciser les indicateurs clés de rendement. Enfin, la vérification aborde également dans une perspective coûts-avantages (rentabilité) la question à savoir si la Ville devrait continuer ou non de participer à l'IACSM.

## **Objectifs et portée de la vérification**

La vérification a porté sur l'examen d'indicateurs clés de rendement (ICR) utilisés présentement dans plusieurs programmes municipaux, notamment Eau potable, Travaux publics, Déchets solides, Loisirs, Logement social, Service des incendies, Eaux usées et Technologie de l'information. Nous n'avons pas procédé à un examen exhaustif de tous les ICR. Étant donné la décision de la Ville d'adopter le cadre du Bulletin de rendement équilibré, nous avons plutôt formulé des conseils et des recommandations pour soutenir l'administration municipale dans sa transition vers ce nouveau cadre d'évaluation.

**Objectif 1** - Les mesures de rendement et les données de séries chronologiques présentées au Conseil, à la direction et aux intervenants à l'externe sont *exacts* et *correctement évalués*.

**Objectif 2** - Le Bulletin de rendement équilibré de la Ville, en tant que cadre de mesure du rendement, *arrime de façon appropriée* la planification stratégique du Conseil, la planification opérationnelle des services, les décisions budgétaires afférentes et les exigences relatives à la présentation de rapports sur les résultats.

**Objectif 3** - Les mesures de rendement et les données de séries chronologiques présentées au Conseil, à la direction et aux intervenants à l'externe sont *complets*.

**Objectif 4** - Les indicateurs clés de rendement (tirés d'un échantillon représentatif de services municipaux et de fonctions de soutien) sont *appropriés et pertinents d'un point de vue conceptuel* - en matière de planification opérationnelle et d'établissement d'objectifs, de soutien aux décisions budgétaires et de présentation de rapports additionnels sur les résultats.

**Objectif 5** - L'administration municipale comprend la relation coûts-avantages (rentabilité) associée à la conception d'un cadre de mesure du rendement et d'indicateurs, à la mise en œuvre de ce cadre, à son suivi et à la présentation de rapports réguliers. Il a été démontré que les avantages provenant de l'amélioration des résultats et de la reddition de comptes sur le plan de la prestation des services surpassaient les coûts directs récurrents et les coûts de renonciation liés au processus d'évaluation.

**Objectif 6** - La participation de la Ville à l'IACSM donne des indicateurs clés de rendement pertinents et appropriés, un historique de données claires et convaincantes en ce qui concerne le rendement et un retour sur l'investissement caractérisé par l'adoption de pratiques exemplaires de prestation de services fournies par des pairs de l'IACSM et appuyées par des données empiriques.

## **Résumé des principales constatations**

1. À cause du niveau élevé d'entrées multiples de données et des nombreuses manipulations nécessaires dans les secteurs vérifiés, l'exactitude des calculs des indicateurs clés de rendement est mise à risque. Pour atténuer les risques

d'erreurs, il fait automatiser davantage les procédures et procéder à l'implantation efficace du nouvel Outil de renseignements administratifs.

2. Pour l'indicateur clé de rendement (ICR) des coûts d'exploitation par ML de l'eau potable traitée, la variation entre la mesure de l'IACSM (106,799 ML) et la mesure déterminée dans le cadre de notre vérification (106,523 ML) est de 0,26 %. La différence étant inférieure à 1 %, nous estimons qu'elle est négligeable.
3. L'ICR du taux de réponse aux appels sur la ligne 3-1-1 à propos de défaillances des feux de circulation tel que rapporté dans le bulletin de rendement sur l'excellence du service s'est avéré exact.
4. L'ICR des coûts de fonctionnement par kilomètre - autres véhicules (légers et lourds), présenté dans le rapport trimestriel sur le rendement soumis au Conseil était exact.
5. Le Bulletin de rendement équilibré de la Ville est fondé sur la structure organisationnelle plutôt que sur les programmes/services. Cela étant, il se peut que les bulletins de rendement équilibrés n'évaluent pas le rendement des services ou des programmes. La direction a indiqué que les services préparent actuellement leurs plans stratégiques et bulletins de rendement équilibrés dans l'optique d'appuyer l'atteinte des priorités stratégiques, des objectifs et des initiatives du mandat du Conseil. Ces plans comprendront également des priorités opérationnelles critiques reliées aux services fournis par les différentes directions; par conséquent, des mesures de rendement seront intégrées aux plans stratégiques et bulletins de rendement des services. Pour que le modèle du Bulletin de rendement équilibré soit efficace, il est important que les bulletins de rendement des services soient reliés à leurs plans et à leurs priorités opérationnelles ainsi qu'aux priorités du Conseil.
6. Le bulletin de rendement équilibré de chacun des secteurs vérifiés devrait être axé sur :
  - a) la National Solid Waste Benchmarking Initiative pour le Service de gestions des déchets solides;
  - b) le rapport spécial sur le rendement préparé dans le cadre de la vérification du Service des parcs, des loisirs et de la culture;
  - c) la base de données d'évaluation de rendement de la Société des services de logement social, sa trousse de gestion des actifs et les prévisions en matière de logement pour Services de logement social;
  - d) le tableau de bord mensuel, le rapport annuel et le processus d'auto accréditation de la Commission on Fire Accreditation International (CFAI) pour le Services des incendies;

- e) la National Water and Wastewater Benchmarking Initiative pour les Services de gestion de l'eau potable et des eaux usées;
  - f) le processus de mesure du rendement et d'étalonnage Gartner pour les services de technologie de l'information.
7. L'Initiative d'analyse comparative des services municipaux de l'Ontario (IACSM) n'a pas produit les améliorations soutenues que laissait indiquer sa mission et son mandat originaux. Des possibilités de pratiques exemplaires n'émergent pas de la complexité des calculs de l'IACSM. On devrait chercher à redéployer les efforts du personnel de la Ville et les ressources associées à l'IACSM vers des systèmes d'étalonnage et d'évaluation de rendement plus prometteurs.

### ***Économies potentielles***

Au cours de la dernière décennie, la Ville a consacré de nombreuses ressources, surtout humaines, à diverses initiatives d'évaluation de rendement. Malheureusement, on a peu d'indications démontrant que ces mesures ont été utilisées pour appuyer le budget et la prise de décision opérationnelle. Cela étant, la rentabilité de ces exercices est douteuse. Il sera important pour la direction de vérifier l'utilité du nouveau Bulletin de rendement équilibré afin d'éviter qu'une telle situation ne se reproduise. Selon nous, si ces divers exercices d'évaluation de rendement ne génèrent pas les avantages anticipés, on pourrait économiser en les abandonnant.

### ***Recommandations et réponses de la direction***

#### **Recommandation 1**

**Que la Ville conserve une piste de vérification, notamment les documents sources, ainsi que les méthodes de calcul des mesures de rendement et la provenance des données recueillies.**

#### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Depuis la vérification, le processus d'évaluation de rendement dans le Service de gestion de l'eau potable a été modifié pour améliorer la piste de vérification, comme recommandé. Tous les dossiers du Service de gestion de l'eau potable seront désormais remis au Service des finances. Aucune autre mesure n'est requise.

## **Recommandation 2**

**Que la Ville examine comment le nouvel Outil de renseignements administratifs peut permettre d'améliorer l'efficacité du processus de mesure du rendement et, si l'outil devait être davantage utilisé, s'assure de sa diffusion et de son application à d'autres processus de mesure du rendement, le cas échéant.**

### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Pour le moment, le budget ne prévoit pas d'investissement dans d'autres outils de renseignements administratifs pour la Ville. Le Service des affaires municipales réalisera une analyse de rentabilité pour déterminer la faisabilité d'étendre l'utilisation de l'outil de renseignements administratifs actuel à l'échelle de la Ville et formuleront des recommandations à cet effet à l'intention du directeur municipal d'ici la fin du 2<sup>e</sup> trimestre 2012. Si on devait procéder à d'autres investissements dans des outils de renseignements administratifs, l'information pertinente serait alors transmise aux gestionnaires et aux employés municipaux concernés.

## **Recommandation 3**

**Que la Ville procède, lorsque c'est possible, à l'automatisation des procédures répétitives (les bulletins de rendement préparés par les Travaux publics sont un exemple d'utilisation de l'automatisation pour extraire et traiter des données dans Excel).**

### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Le Service des affaires municipales travaille actuellement à la conception d'une nouvelle procédure de collecte de données et de présentation de rapports pour faire rapport sur les priorités du mandat du Conseil. Ce travail sera achevé à la fin du 4<sup>e</sup> trimestre 2012 et, lorsque possible, on procédera à l'automatisation des procédures répétitives. L'étendue de l'automatisation dépend aussi de la décision d'investir ou non dans des outils de renseignements administratifs, comme expliqué dans la réponse de la direction à la recommandation 2. S'il n'est pas rentable de procéder à d'autres investissements dans des outils de renseignements administratifs, le Service des affaires municipales examinera d'autres options d'ici la fin du 4<sup>e</sup> trimestre 2012.

## **Recommandation 4**

**Que Travaux publics continuent de parfaire et d'utiliser leurs bulletins de rendement en matière d'excellence du service et s'assurent que les données rapportées sont utiles à la direction, que des objectifs sont fixés et comparés à la réalité et que le format des bulletins est uniformisé lorsque possible.**

**Réponse de la direction**

La direction est d'accord avec cette recommandation.

Parallèlement au déploiement du cadre de planification municipale dans les services, les bulletins de rendement seront améliorés et leur format sera uniformisé pour qu'ils soient utiles aux gestionnaires. Ce sera terminé au 4<sup>e</sup> trimestre 2012.

**Recommandation 5**

**Que la Ville se serve de l'automatisation des bulletins de rendement à titre d'exemple d'améliorations possibles pour d'autres directions.**

**Réponse de la direction**

La direction est d'accord avec cette recommandation.

La Ville procède actuellement à la création de bulletins de rendement équilibrés pour l'administration municipale et les divers services afin de faire rapport sur les priorités stratégiques. Le Service des affaires municipales analysera d'ici la fin du 3<sup>e</sup> trimestre 2012 les bulletins de rendement utilisés en ce moment par Travaux publics et il déterminera l'automatisation applicable à d'autres directions. L'étendue de l'automatisation dépend aussi de la décision d'investir ou non dans des outils de renseignements administratifs, comme expliqué dans la réponse de la direction aux recommandations 2 et 3.

**Recommandation 6**

**Que le Service du parc automobile utilise plus efficacement le contrôle automatisé en programmant des seuils raisonnables dans le système M5 de manière à être informé d'inexactitudes possibles au chapitre du kilométrage.**

**Réponse de la direction**

La direction est d'accord avec cette recommandation.

Le groupe de l'entretien vient d'achever un examen annuel des seuils. Il existe dans le système M5 des fonctions avancées permettant de donner suite à cette recommandation et, dans le cadre des initiatives d'amélioration continue, une formation des employés sera organisée d'ici le 1<sup>er</sup> trimestre 2013 afin de veiller à ce que ces fonctions soient utilisées.

**Recommandation 7**

**Que les Services du parc automobile procèdent lorsque possible à l'automatisation des rapports de mesure du rendement.**

### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Une équipe intra service a été mise sur pied, formée d'employés du Service du parc automobile et du Service d'affaires pour automatiser, lorsque possible, les rapports de mesure du rendement. Ce sera terminé à la fin du 4<sup>e</sup> trimestre 2012.

### **Recommandation 8**

**Que le Service du parc automobile participe à l'initiative du bulletin de rendement en matière d'excellence de Travaux publics.**

### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Une équipe intra service, formée d'employés du Service du parc automobile et du Service d'affaires, travaille à l'amélioration des bulletins de rendement mensuels en matière d'excellence du service pour y intégrer les rapports mensuels du Service du parc automobile.

L'équipe de gestion du Service du parc automobile parraine la création de cartes stratégiques et de bulletins de rendement équilibrés qui mettent l'accent sur la culture de l'excellence du service et la reddition de comptes conformément aux initiatives des services et de l'administration municipale.

La création de bulletins de rendement équilibrés en matière d'excellence du service pour le Service du parc automobile sera terminée au 4<sup>e</sup> trimestre 2012.

### **Recommandation 9**

**Que le Service du parc automobile, avant de corriger les inexactitudes au chapitre du kilométrage, en détermine la raison et établisse le kilométrage véritable.**

### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Un examen complet des raisons des erreurs de kilométrage a été entrepris par le Service du parc automobile et a révélé que la cause principale était l'inexactitude des codes du système de gestion du parc automobile (cf. recommandation 6) et l'erreur humaine (à l'entrée des données sur les caractéristiques du véhicule ou lors du ravitaillement des véhicules).

Comme mentionné dans la réponse de la direction à la recommandation 6, des mesures seront prises pour optimiser les seuils du système de gestion du parc automobile. De plus, à la fin de 2011, le Service du parc automobile a lancé une campagne de communications pour informer les clients de l'importance de faire une lecture exacte des cadrans et pour rappeler aux superviseurs qu'il leur incombait d'assurer la conformité. Dans le cadre de cette campagne pour

améliorer les rapports sur le kilométrage, des affiches ont été créées et seront distribuées dans tous les postes de ravitaillement en carburant de la Ville d'ici le 3<sup>e</sup> trimestre 2012. Enfin, la Ville procède à une mise à niveau des logiciels du système de ravitaillement, ce qui facilitera les échanges interactifs avec le personnel chargé du ravitaillement des véhicules et permettra d'améliorer sensiblement l'exactitude des données sur le kilométrage entrées manuellement.

### **Recommandation 10**

**Que la Ville examine les avantages possibles de l'outil de renseignements administratifs pour tous les utilisateurs potentiels et y intègre les fonctions nécessaires pour soutenir la préparation des rapports de mesure du rendement lorsqu'il est rentable de le faire.**

#### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Comme l'indique la réponse de la direction à la recommandation 2, pour le moment, le budget ne prévoit pas d'investissement dans d'autres outils de renseignements administratifs pour la Ville. Le Service des affaires municipales réalisera une analyse de rentabilité pour déterminer la faisabilité d'étendre l'utilisation de l'outil de renseignements administratifs actuel à l'échelle de la Ville et formulera des recommandations à cet effet à l'intention du directeur municipal d'ici la fin du 2<sup>e</sup> trimestre 2012. Si on devait procéder à d'autres investissements dans des outils de renseignements administratifs, l'information pertinente serait alors transmise aux gestionnaires et aux employés concernés à l'échelle de la Ville.

### **Recommandation 11**

**Que la Ville, en créant les bulletins de rendement équilibrés, s'assure qu'ils sont arrimés aux plans stratégiques et aux priorités opérationnelles cruciales des services ainsi qu'aux priorités du mandat du Conseil.**

#### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Les différents services préparent actuellement leurs plans stratégiques et leurs bulletins de rendement équilibrés pour appuyer l'atteinte des priorités stratégiques, des objectifs et des initiatives du mandat du Conseil. Ces plans comprendront également des priorités opérationnelles cruciales reliées aux services fournis par les directions; par conséquent, des mesures de rendement seront intégrées aux plans stratégiques et aux bulletins de rendement des services. Cette recommandation sera mise en œuvre d'ici le 4<sup>e</sup> trimestre 2013.

## **Recommandation 12**

**Que la direction de la gestion des déchets solides, en créant le bulletin de rendement équilibré, y intègre la portée et les indicateurs de la National Solid Waste Benchmarking Initiative ainsi que les indicateurs utilisés actuellement pour la présentation des rapports trimestriels et pour la gestion des entrepreneurs.**

### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Les Services environnementaux vont réviser les mesures utilisées dans les rapports trimestriels pour déterminer les coûts et les avantages et choisir les indicateurs clés de rendement qui seront intégrés, lorsqu'il y a lieu, au bulletin de rendement équilibré du service d'ici le 4<sup>e</sup> trimestre 2012.

Les indicateurs liés à la gestion des déchets solides de la National Solid Waste Benchmarking Initiative sont élaborés actuellement et, une fois ce travail terminé, ils seront évalués dans l'optique de les intégrer au bulletin de rendement équilibré du service d'ici le 4<sup>e</sup> trimestre 2013.

## **Recommandation 13**

**Que la direction du Service des parcs, des loisirs et de la culture, en créant le bulletin de rendement équilibré, y intègre certains des indicateurs clés de rendement mis en relief dans le rapport spécial sur le rendement préparé pour la vérification, notamment les indicateurs de rendement axés sur la fréquentation des programmes et la location des installations.**

### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Le Service des parcs, des loisirs et de la culture entreprendra une analyse de rentabilité des indicateurs clés de rendement sélectionnés tels qu'ils apparaissent dans le rapport de rendement spécial préparé pour la vérification. Ceux qui s'avéreront positifs suivant l'analyse de rentabilité seront intégrés au bulletin de rendement équilibré du service d'ici la fin du 4<sup>e</sup> trimestre 2012.

### **Recommandation 14**

Que la direction du Service de logement social, en créant le bulletin de rendement équilibré, y intègre des mesures sélectionnées de rendement tirées :

- a) des indicateurs et de la portée de la base de données pour la mesure du rendement de la Société des services de logement social;
- b) de la trousse de gestion des actifs et des données de prévision;
- c) des outils de présentation de rapports utilisés par les fournisseurs de logements;
- d) du programme d'amélioration continue associé au cadre des normes en matière de logement social;
- e) de la note/cote proposée pour les investissements en capital fondés sur le cycle de vie.

### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Le bulletin de rendement équilibré et opérationnel pour les Services de logement social comprendra des indicateurs clés choisis dans les cinq catégories indiquées dans la recommandation et ces indicateurs seront regroupés de la façon suivante : les indicateurs de rendement de la Société des services de logement social pour les gestionnaires de services, point a); les outils de présentation de rapports existants pour les fournisseurs de logements, points b) et e); et l'outil de gestion des actifs une fois qu'il sera complètement déployé, que les rapports requis auront été préparés et que les données seront disponibles, points c) et d).

Cette recommandation sera mise en œuvre d'ici la fin du 4<sup>e</sup> trimestre 2013.

### **Recommandation 15**

Que la direction du Service des incendies, en créant le bulletin de rendement équilibré, y intègre des mesures de rendement provenant :

- a) des indicateurs et de la portée du tableau de bord mensuel;
- b) du rapport annuel;
- c) de l'initiative d'auto accréditation de la CFAI;
- d) de nouveaux indicateurs de rendement proposés :
  - temps d'intervention dans le 90<sup>e</sup> percentile pour des incendies, des sauvetages et des appels médicaux de catégorie ÉTG 1 et 2;
  - coût de fonctionnement total (comprenant le véhicule et son amortissement) par heure de service du véhicule;
  - pourcentage d'appels à caractère médical où des pompiers sont intervenus en administrant des soins médicaux.

### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Le Service des incendies évalue actuellement la majorité des éléments mentionnés dans la recommandation et en font rapport.

Le processus en cours à la CFAI permettra de dégager de nouveaux indicateurs de rendement tout en validant les indicateurs de rendement actuels qui servent à rendre compte des pratiques exemplaires dans l'industrie. Le Service des incendies d'Ottawa a l'intention d'élaborer un bulletin de rendement équilibré fondé sur le cadre de rendement existant et d'y ajouter des mesures de rendement tirées du processus d'accréditation. Le bulletin de rendement s'arrimera, lorsque possible, aux mesures clés de rendement du bulletin de rendement des Services de protection et d'urgence. Cette recommandation sera mise en œuvre d'ici le 4<sup>e</sup> trimestre 2013.

Fait à noter, le nouveau guide du Bureau du commissaire des incendies de l'Ontario ne parle plus de l'intervention « dix en dix minutes ». Celui qui était en vigueur au moment de la vérification a été remplacé à la fin de 2011 par *l'Official Guide Matching Resources, Deployment and Risk*.

### **Recommandation 16**

**Que la direction des Services d'approvisionnement en eau et de distribution de l'eau, en créant le bulletin de rendement équilibré, y intègre les indicateurs clés de rendement de la National Water and Wastewater Benchmarking Initiative ainsi que des mesures de rendement stratégiquement arrimées à des résultats de santé publique plutôt qu'à des résultats environnementaux plus restreints dans leur portée.**

### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

Les Services environnementaux analyseront la National Water and Wastewater Benchmarking Initiative pour déterminer la rentabilité d'utiliser ses indicateurs de rendement liés à l'approvisionnement en eau et à la distribution de l'eau. Ceux qui s'avéreront positifs suivant l'analyse de rentabilité seront incorporés au bulletin de rendement équilibré du service d'ici la fin du 4<sup>e</sup> trimestre 2012. Dans l'élaboration du bulletin de rendement, les Services environnementaux prendront également en compte des indicateurs de rendement arrimés à des résultats de santé publique. Ce sera fait à la fin du 4<sup>e</sup> trimestre 2012.

### **Recommandation 17**

**Que la direction du Service de collecte et de traitement des eaux usées, en créant le bulletin de rendement équilibré, y intègre les indicateurs clés de rendement de la National Water and Wastewater Benchmarking Initiative.**

**Réponse de la direction**

La direction est d'accord avec cette recommandation.

Les Services environnementaux analyseront la National Water and Wastewater Benchmarking Initiative pour déterminer la rentabilité d'utiliser ses indicateurs de rendement liés à la gestion de la collecte et du traitement des eaux usées. Ceux qui s'avéreront positifs suivant l'analyse de rentabilité seront intégrés au bulletin de rendement équilibré du service d'ici la fin du 4<sup>e</sup> trimestre 2012.

**Recommandation 18**

**Que la direction du Service de la TI, en créant le bulletin de rendement équilibré, y intègre un certain nombre des fonctions du processus d'étalonnage et d'évaluation de rendement Gartner.**

**Réponse de la direction**

La direction est d'accord avec cette recommandation.

Le Service de la TI va intégrer au bulletin de rendement équilibré du service un certain nombre des fonctions du processus Gartner d'ici la fin du 4<sup>e</sup> trimestre 2012.

**Recommandation 19**

**Que, dans tous les cas où ils sont instaurés, les bulletins de rendement intégrés comprennent des indicateurs par quadrant de rendement et des objectifs quantitatifs de rendement (annuel et au-delà) pour appuyer le budget et la prise de décision opérationnelle.**

**Réponse de la direction**

La direction est d'accord avec cette recommandation.

La Ville procède actuellement à la création de bulletins de rendement équilibrés pour l'administration municipale et les services en vertu de son cadre de planification municipale afin de faire rapport sur les priorités stratégiques. Le Service des affaires municipales s'assurera que, d'ici la fin du 2<sup>e</sup> trimestre 2012, le bulletin de rendement équilibré de la Ville comprend des indicateurs par quadrant de rendement et des objectifs quantitatifs de rendement. Les bulletins de rendement des services adopteront la même approche.

**Recommandation 20**

**Que la Ville, au fil de la mise en œuvre du modèle de Bulletin de rendement intégré, surveille l'efficacité et la rentabilité de continuer de participer à l'IACSM afin de déterminer s'il y a lieu ou non de se retirer de l'initiative.**

### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

La Ville évaluera sa participation au programme de l'IACSM dans le contexte de la mise en œuvre des bulletins de rendement équilibrés pour déterminer l'efficacité et la rentabilité de continuer ou non à y participer. L'évaluation pour déterminer s'il y a lieu de se retirer du programme sera achevée d'ici la fin du 4<sup>e</sup> trimestre 2013.

### **Recommandation 21**

**Que la Ville vérifie la rentabilité du modèle de Bulletin de rendement équilibré et celle d'autres modèles de mesure du rendement utilisés pour s'assurer que les ressources afférentes requises par ces modèles sont toujours nécessaires.**

### **Réponse de la direction**

La direction est d'accord avec cette recommandation.

La direction est d'accord d'évaluer la rentabilité des méthodes futures de mesure du rendement. Toutefois, la direction ne procédera pas à une évaluation de rentabilité du modèle actuel du Bulletin de rendement équilibré en cours de mise en œuvre. La Ville a déjà pris la décision par la voix du Conseil de procéder avec le Bulletin de rendement équilibré de sorte qu'il ne serait pas pratique ni efficace financièrement d'effectuer une analyse de sa rentabilité. Le Service des affaires municipales effectueront une analyse de rentabilité entourant toute future décision ayant trait à de nouveaux modes de mesure du rendement.

### ***Conclusion***

Les risques afférents à l'exactitude sur le plan technique du calcul des indicateurs clés de rendement sont surtout attribuables aux multiples saisies et à la manipulation des données dans les secteurs vérifiés. Pour diminuer les risques d'erreurs, il faut automatiser davantage les procédures et implanter efficacement le nouvel outil de renseignements administratifs.

Le Conseil et la direction transitent vers un modèle de planification et de gestion stratégiques harmonisant les priorités du Conseil aux quelque 84 initiatives stratégiques et 18 plans stratégiques des divers services municipaux afin d'arrimer les priorités stratégiques du mandat du Conseil aux activités opérationnelles et au nouveau bulletin de rendement équilibré de l'administration municipale.

Il s'agit d'un modèle pertinent et bien conçu qui s'appuie sur une perspective de gestion fondée sur une structure organisationnelle traditionnelle. Toutefois, il est essentiel que le déploiement du bulletin de rendement équilibré se fasse dans les 25-30 services/programmes essentiels fournis par la Ville et consommés par les contribuables. Les bulletins de rendement équilibrés des principaux services

municipaux permettront de faire le pont entre la rentabilité et le processus budgétaire de la Ville.

Notre vérification des indicateurs clés de rendement dans un échantillon représentatif de services municipaux démontre qu'il est possible, en utilisant des indicateurs de rendement, d'améliorer la gestion et non seulement la présentation des rapports traditionnels. L'établissement des objectifs opérationnels en fonction d'indicateurs de rendement est limité dans les unités opérationnelles de la Ville échantillonnées. Aussi la conception des indicateurs de rendement et leur pertinence varient beaucoup, et pour bon nombre d'entre eux, il ne conviendrait pas de les inclure dans les nouveaux bulletins de rendement équilibrés. Bien implantés, les nouveaux bulletins de rendement équilibrés recommandés devraient corriger les lacunes observées.

Enfin, il y a des arguments convaincants pour redéployer les efforts du personnel de la Ville et les ressources affectées à l'IACSM vers des systèmes d'étalonnage et d'évaluation de rendement plus prometteurs. L'IACSM n'apporte pas les avantages et les possibilités que laissait présager sa mission et son mandat originaux.

### **Remerciements**

Nous voulons remercier la direction, le personnel et analystes de la Ville pour leurs coopérations et l'aide apportée à l'équipe de vérification.

## 1 INTRODUCTION

The Audit of Performance Measurement was included in the 2011 Audit Plan of the Office of the Auditor General, first approved by Council on April 13, 2011.

## 2 BACKGROUND

A performance measurement framework and its portfolio of key performance indicators constitute an important service delivery tool available for municipalities. Performance measurement frameworks align strategic and operational perspectives for Council and Management and the resulting data could be used to set business targets and support budget allocation decisions. The indicators are also used to support operational decision-making by Management.

Since amalgamation, the City of Ottawa has developed a number of different performance measurement frameworks with an evolving portfolio of key performance indicators, investing considerable staffing, training and data management resources. Implementation of the various measurement frameworks, however, has been largely incomplete and progress has been uneven across City business units in utilizing key performance indicators. The City's Strategic Branch Review (SBR) initiative is a case in point. In 2008, Council approved the Strategic Branch Review concept and at the end of 2008, seven branches had completed a Strategic Branch Review. In 2009, the Audit, Budget and Finance Committee recommended that Strategic Branch Review be incorporated in the development of the departmental service excellence plans. In May 2011, Council adopted the Corporate Planning Framework which replaces the existing Performance Management and Reporting Framework, the Integrated Planning Framework and the Strategic Branch Review Process.

Maintaining momentum is a necessary ingredient in implementing a successful performance measurement framework.

Key performance indicators have been reported to Council on a quarterly and annual basis over the past decade using various frameworks, including the Ontario Municipal Benchmarking Initiative (OMBI). Performance indicators have also been introduced as a component of the annual budget package supporting Council decision-making. However, the degree to which Council relies on performance indicator data in making budget decisions is unclear. The relevance of key performance indicators has varied widely across City business units in recent years. The use of key performance indicators by City business units has ranged from largely reactive results or activities reporting to more proactive target setting and operational decision support.

The City is currently rolling out a new Balanced Scorecard performance measurement framework. According to a July 2011 report to Council, the new Balanced Scorecard corporate measurement framework will be used as a strategic

tool to align Council endorsed community outcome themes with 84 proposed corporate strategic actions that achieve these themes. Eighteen departmental strategic plans will be prepared to link the term of Council strategic priorities with operational activities across the City. The departmental strategic plans will each contain a Balanced Scorecard, with measures and targets that will be used to measure and report results.

The audit has assessed the appropriateness of the new City Balanced Scorecard approach and provides recommendations to help Management fine-tune the key performance indicators used in Balanced Scorecard. Finally, the audit provides a cost/benefit perspective on whether the City should continue to participate in the OMBI.

### **3 AUDIT SCOPE AND OBJECTIVES**

#### **3.1 Audit Scope**

The scope of the audit encompassed a review of selected Key Performance Indicators (KPI) currently in use across several City programs including Drinking Water, Public Works, Solid Waste, Recreation, Social Housing, Fire Services, Wastewater and Information Technology. The scope did not include an exhaustive review of every KPI but rather, given the City's decision to adopt the Balanced Scorecard framework, it was focussed on providing advice and recommendations for the move to this model.

#### **3.2 Audit Objectives**

*Objective 1* - Performance measures and time series data reported to Council, Management and external stakeholders are *accurate* and *properly valued*.

*Objective 2* - The City's Balanced Scorecard corporate performance measurement framework *appropriately aligns* Council led strategic planning, departmental operational planning, budget decision support and results reporting requirements.

*Objective 3* - Performance measures and time series data reported to Council, Management and external stakeholders are *complete*.

*Objective 4* - Key performance indicators (derived from a representative cross-section of City services and support functions) are *appropriate and relevant from a design perspective* - in terms of operational planning and target setting, budget decision support, and results based accountability reporting.

*Objective 5* - The City understands the cost/benefit relationship associated with performance measurement framework and indicator design, implementation and ongoing tracking/reporting. The benefits accruing in terms of service delivery results/accountability improvement have been demonstrated outweigh the ongoing direct and opportunity costs of measurement.

**Objective 6** - The City's involvement in OMBI features relevant and appropriate key performance indicators, clear and compelling performance data stories, and a return on investment characterized by the adoption of evidence-supported best practices in service delivery supplied by OMBI peers.

### **3.3 Methodology**

The audit consisted of the following components:

1. Assessment of City corporate performance measurement framework and key performance indicators according to municipal sector industry standards and best practices;
2. Establishment of representative cross-section of City services for performance indicator relevance assessments (objective selection criteria);
3. Representative sample selection of performance indicators for accuracy reviews;
4. Detailed review of policies, procedures and other documentation such as:
  - Process maps, logic models, strategy maps and scorecard descriptions;
  - User manuals and system documentation;
  - Reports, analysis and other oversight tools used in management;
  - Monitoring; and,
5. Interviews and working sessions with key City staff stakeholders including, but not limited to:
  - Analytical procedures including gap analyses on effectiveness of controls, and data analysis on transactions;
  - Tests and analysis of a sample of transactions for completeness and accuracy;
  - A detailed walkthrough of selected performance indicator data population and reporting processes and critical path steps;
  - Assessments of the relevance and appropriateness of selected key performance indicators; and,
  - Assessment of the relevance and appropriateness of the corporate Balanced Scorecard framework.

## 4 OBSERVATIONS AND RECOMMENDATIONS

### **4.1 *Audit Objective 1: Performance measures and time series data reported to Council, Management and external stakeholders are accurate and properly valued.***

For the purposes of this audit, the assessment of the accuracy of performance measurement information focused on two departments: Public Works and Environmental Services.

Within each department, specific branches were selected for a review of the performance measurement processes from gathering data and calculating the measure to including the final information in reports to the province, to Council, or internally to the department. The process was reviewed for key controls that would help to ensure the completeness and accuracy of the reported measure. Because the focus of this component of the audit was on the processes used to generate performance measures across the branches selected, conclusions on the completeness and accuracy of the data can be applied to other measures that are calculated and reported using the same processes.

#### **4.1.1 Drinking Water Services – Operating Costs for the Treatment of Drinking Water**

##### **Process**

The process of data gathering for this performance measure at Drinking Water Services is straight forward with data automatically tabulated by flow meters and recorded in an Excel report which is subsequently reviewed for reasonableness.

The data extraction and subsequent calculations required for this measure by two areas in Finance is more intricate and complex, involving extraction from SAP, reconciliation, manipulation of allocations and other adjustments. Data is exchanged between the Financial Services Unit and Accounting Unit, and is checked for completeness and accuracy. This process is used for other OMBI measures, not only for Drinking Water, and cover most financial measures tracked by OMBI.

##### **Controls**

The process used to calculate the “operating cost of the treatment of drinking water per mega litre of drinking water” and report the measure in the annual OMBI report incorporates several controls over data accuracy.

A Management review is performed to ensure the data on water flow extracted from the SCADA database to Excel is reasonable. (The SCADA database is used by Drinking Water Services and is automatically populated by the water flow meters). The automated water flow measuring devices are checked annually as required by the Ministry of the Environment. The cost component of this measure is derived

from several reports from SAP, and many adjustments and manipulation of the data to include such things as allocation of shared services. To mitigate the increased risks to data integrity brought about by the complex process, the schedules prepared by Accounting are reconciled to those prepared by the Financial Services Unit (FSU), and are reviewed by the FSU area representatives for reasonableness. As well, the provincial reporting portal has automated application controls that ensure various schedules balance.

Within the current process, the limitations of the current database tool necessitate an excessive amount of data reconciliations, and uploading or manually inputting data into Excel in order to transform the available data into the information that is required to accurately calculate this measure. For example, each time this measure is reported, reconciliation between one set of data taken from SAP and another set of data also taken from SAP is performed by Accounting. A similar reconciliation is also performed by the FSU. Further, the data reported by Accounting is reconciled to that reported by the FSU. Excel spreadsheets are manually populated in this exercise. In addition, the province requires the data entered into the reporting portal to be entered manually. The manual data entry from one report or worksheet to another occurs a minimum of six times.

Key controls in the process include:

1. Valuation: SCADA system has built in alarms on key parameters.
2. Completeness and Accuracy: SCADA data is cross checked annually.
3. Completeness and Accuracy: The Plant Manager reviews the Excel file data exported from SCADA for reasonableness prior to submission for the calculation of the performance measurements.

These controls affect two of the five performance measures reported in the Quarterly Report to Council, and five internally reported measures.

1. Completeness, Accuracy and Valuation: The Accounting Unit does not begin its performance reporting process until the financial statements have been audited.
2. Completeness: The Accounting Unit reconciles the cost centre reports in SAP to the "Ottawa 10" budget hierarchy in SAP to ensure completeness of the data. The Budget and Financial Planning Unit performs ongoing checks using SAP functionality to ensure that the alternate Financial Information Return (FIR) reporting hierarchy used for external reporting is in balance with the alternate SAP reporting hierarchy "Quarterly" used for internal reporting.
3. Completeness and Accuracy: Once the Accounting Unit's preliminary worksheet (Schedule A) has been entered into Excel from SAP, the Accounting Unit reconciles the totals with the SAP report to ensure accuracy and completeness.

4. Valuation: Once Schedules A, B and C have been completed by the Accounting Unit, they are sent to the FSU branch representatives for review. The branch representatives review the adjustments for reasonableness given their knowledge of operations.

The four controls above affect every measure in the OMBI and Quarterly Reports to Council that have a cost component: approximately 44 measures on the OMBI report and 7 measures on the Quarterly Report to Council.

1. Accuracy: The online Financial Information Return schedule has automated checks to ensure all worksheets balance.
2. Completeness and Accuracy: The FSU ensures that the Schedule B adjustments agree to the source documents provided to the Accounting Unit by the FSU.

Control #8 affects all measures reported for the OMBI report. Control #9 will affect every measure for Environmental Services that has a cost component: Seven out of 17 measures on the OMBI Dashboard, as well as any internal measures used within the department.

### Design of the Key Controls

The design of key controls for this performance measure was assessed. Concerns were found with the following controls:

**#7 - Valuation:** Once all schedules have been completed, they are sent to the FSU branch representatives for review. The branch representatives review the adjustments for reasonableness given their knowledge of operations.

Concerns were raised by two managers that the tight timelines required in this process may lead to inaccurate and incomplete data. The timeline is bound at the start by the completion of the external audit, and at the end by the FIR reporting deadline of May 31. In 2010, the data was available for review on May 19. In 2009, the timelines were even shorter since it was the first year that the FIR and OMBI measures were developed based on new accounting standards for tangible capital assets.

The weakness in this control will affect all measures that have a cost component: approximately 44 measures on the OMBI report and 7 measures on the Quarterly Report to Council. These issues are not unique to Environmental Services; they affect all financial measures tracked by OMBI.

**#9 - Completeness and Accuracy:** The FSU ensures the spreadsheet balances and agrees to SAP and Accounting spreadsheet.

There is no evidence to show that this control was operating effectively for the calculation of the measure for the 2009 report. An extensive amount of effort is spent populating the reconciliation spreadsheet with data from SAP, applying allocations based on a variety of cost drivers to obtain a more accurate picture of expenditures on shared services that apply to this performance measure, and to ensure that in the end, the data is in balance. However the appropriate documentation is not maintained to easily demonstrate that the spreadsheet agreed to the source data and to show that the reconciliation was in balance. In the calculation of the 2009 OMBI measure, adjustments were made subsequent to the reconciliation. Because an audit trail was not kept on file with the reconciliation, it cannot be shown that this reconciliation matched the source information or the Accounting spreadsheets. It is not clear, therefore, that for the 2009 measure, the reconciliation was an effective tool to help ensure the accuracy of the reported measure.

The weakness in this control will affect all measures for Environmental Services that have a cost component. Seven out of 17 measures on the OMBI Dashboard, as well as any internal measures used within the department.

### **Potential for Inaccuracy and Incompleteness**

The following procedures identified in the performance measurement reporting process may lead to inaccurate or incomplete measurement:

1. Data from the SAP databases is extracted to Excel in order to obtain the desired performance information. At several points in the process, the data is manually entered into the spreadsheet or from one spreadsheet to another. Each point of data extraction and each point of manual data entry is a point where the integrity of the data may be compromised.
2. The majority of departments utilise an alternate SAP reporting hierarchy "Quarterly" which reports SAP data based on an organizational or departmental view by committee/commission. This hierarchy is used for internal reporting. The Accounting Unit uses another alternate SAP hierarchy "FIR" which reports SAP data from an external financial reporting view. The Budget and Financial Planning Unit maintains both alternate hierarchies and performs ongoing checks using SAP functionality to ensure completeness of the data.

Opportunity exists to benefit from the new Business Information (BI) tool in this process (a more detailed discussion of BI appears later in this report). However, at the time of this audit, this branch was not aware of the tool and had not been approached to discuss how the tool may improve the efficiency of the process. While the City is currently in the process of developing and implementing business intelligence software tools, focus has been on the development of Finance and HR data marts<sup>1</sup> only. No decision has yet been made to further develop BI for the Operations and Customer Service components and expand the use for balanced scorecard purposes. There are significant costs associated with this decision. As such, any communications with stakeholders have been limited to the development of the two data marts noted above.

These limitations will affect all measures that have a cost component: approximately 44 measures on the OMBI report and 7 measures on the Quarterly Report to Council.

### **Accuracy of the Measure**

Accounting Unit maintains an audit trail of documents to support the calculation of the measure of operating cost per mL of treated drinking water. The documents demonstrated that the accounting information gathered and calculated for this measure was complete and accurate.

Although Drinking Water Services currently reviews the relevant data and maintains an audit trail, current Management did not have an audit trail for the 2009 measure that was prepared by previous Management. The Excel spreadsheets that were retrieved as back up for this measure showed a value for the amount of drinking water treated that differed slightly to the value used in the calculation of the 2009 OMBI Report. The difference between the OMBI value (106,799 ML) and the value provided in the spreadsheets (106,523 ML) is 0.26%. Given this is less than a 1% difference, we believe this difference to be negligible.

The Financial Services Unit maintains its reconciliations on file, but does not maintain an audit trail to demonstrate the source of the information used in the reconciliation or to show that the results balance as expected. Management explained that the reconciliation spreadsheet is an internal document used as one step in the process, and was not meant to be used for reporting or reference purposes. However, the ability to demonstrate that complete data was used and calculations and allocations were accurate is imperative to the ability to demonstrate due diligence in the reporting process. The value of the allocated operating costs used in the OMBI report was \$26,336,174 while that in the reconciliation is 10.68% smaller at \$23,523,347. This difference affects the performance measure by 10.68%. The

---

<sup>1</sup> A data mart is the access layer of the data warehouse environment that is used to get data out to the users. The data mart is a subset of the data warehouse that is usually oriented to a specific business line or team. In some deployments, each department or business unit is considered the owner of its data mart including all the hardware, software and data.

measure of \$246.60 that was reported would have been \$220.26 using the supporting documentation. Management in the Financial Services Unit and in Accounting Unit both explained that an adjustment was made subsequent to the completion of the initial reconciliation. The adjustment was communicated and included appropriately in the calculation. However the reconciliation was not updated to reflect the adjustment.

The value of the operating costs reported to OMBI was \$26,336,174, which is also the value as calculated and reported in the FIR. The value of \$23,523,347 that was calculated in the reconciliation was the value at that point in time and did not include late adjustments that were processed by the Accounting Unit at a later point in time.

### **Recommendation 1**

**That the City maintain an audit trail including source documents, and calculations that demonstrate how the performance measures were calculated, and from where the data was gathered.**

#### **Management Response**

Management agrees with the recommendation.

Since the time of this audit, the performance measurement exercise within Drinking Water Services (DWS) was modified to improve the audit trail as recommended. All DWS files will now be provided to Finance. No further action is required.

### **Recommendation 2**

**That the City consider how the new Business Intelligence (BI) tool can help improve efficiency in this process, and should the BI tool be utilized further, ensure the tool is communicated and applied to other performance reporting process where appropriate.**

#### **Management Response**

Management agrees with the recommendation.

There is currently no budget allocation for investment in additional Business Intelligence tools for the corporation. Corporate Business Services will conduct a cost-benefit analysis to determine the feasibility of extending the current Business Intelligence tool for broader use across the corporation and will provide recommendations to the City Manager by the end of Q2 2012. If and when an additional investment is made in Business Intelligence tools, the appropriate information will be communicated to the relevant management and staff across the corporation.

**Recommendation 3**

**That, where feasible, the City automate repetitive processes (the balanced scorecards prepared by Public Works are an example of the use of automation in extracting and manipulating data in Excel).**

**Management Response**

Management agrees with the recommendation.

Corporate Business Services is currently designing a new data-gathering and reporting process to report on Term of Council Priorities. This work will be completed by the end of Q4 2012 and will, where feasible, automate repetitive processes. The extent of automation also depends on business intelligence investment decisions as outlined in the management response to Recommendation 2. If additional investment in Business Intelligence tools is not feasible, Corporate Business Services will explore other options by the end of Q4 2012.

**4.1.2 Public Works**

The 2011 Quarterly Report to Council only reports on two branches of Public Works: Fleet Services and Roads and Traffic Operations and Maintenance (RTOM). Six measures are reported for Fleet Services; Operating cost per km, Fuel Usage in litres, and Fuel cost per km is reported for both “fire trucks and ambulances” and “other vehicles.” The accuracy of the measure of operating cost per km for “other vehicles” was selected for assessment for this audit.

Four measures were reported for RTOM in the Quarterly Report to Council. However, Public Works has recently begun a system of internal reporting on “Service Excellence Scorecards.” The Scorecard for Roads and Traffic Operations and Maintenance is the most mature of the Scorecards thus a measure from this was selected for assessment for this audit; the accuracy of the year to date response rates to 3-1-1 calls for traffic signal failure.

**4.1.2.1 Public Works – Traffic - Response rates to 3-1-1 calls for traffic signal failure**

The measure was selected based on discussion with Management as to which measures are most meaningful in terms of providing information that Management can act upon to improve operations. However, this particular measure is not reported in the Quarterly Report to Council. Given that this measure is one of the more meaningful measures to Management’s operations, it should be questioned why it is not reported to Council.

## Controls

The Traffic Management and Operational Support (TMOS) Branch has the centralized responsibility for gathering data, and preparing reports on performance measurement for the Public Works Department. TMOS retrieves data on 3-1-1 calls and responses directly from the MAP system, which is populated by staff maintaining the 3-1-1 calls. The data retrieved from MAP is downloaded to an Excel workbook. The workbook is designed with automatic links and formulae so that the performance measure is calculated with little need for manual entry and manipulation. The workbook is complete with a set of instructions to ensure the procedure is performed accurately and consistently for each reporting period. The analyst reviews the data for reasonableness and to ensure the automatic formulae ran correctly. Once completed, the report is sent to Senior Management for review.

Internal controls over data integrity for this performance measure include automation of repetitive procedures, and Management review for reasonableness.

Key controls include:

1. Automated formulae on the "RTOM\_Traffic\_311\_Summary-June 2011" Excel workbook used in calculating the performance measure. The workbook is set up to automatically extract the necessary data once it is cut and pasted from the 3-1-1 database. Pivot tables are used in the calculation and are set to update automatically. The automation reduces the risk associated with multiple points of data entry and manipulation.
2. The Excel workbook includes specific instructions on how to complete the data upload and calculation exercise, providing continuity and consistency. This approach would be beneficial in several other areas that were examined in the course of this audit, given the exorbitant amount of data entry and data manipulation that is built into the processes.
3. Management reviews the results for reasonableness.

These controls affect all the performance indicators that are reported in the Service Excellence Scorecards in Public Works, four of which are also reported in the Quarterly Report to Council. There were no concerns identified with these controls.

## Accuracy of the Measure

The measure of response rate to 3-1-1 calls for traffic signal failure as reported in the Service Excellence Scorecard was found to be accurate.

### **Recommendation 4**

**That Public Works continue developing and using the Service Excellence Scorecards, ensuring the measures reported provide value to Management, targets are set and compared to actual, and that where feasible, the Scorecards are standardized in their format.**

**Management Response**

Management agrees with the recommendation.

In conjunction with the roll-out of the Corporate Planning Framework departmentally, Scorecards will be enhanced and standardized in their format to ensure they provide value to management. This will be completed by Q4 2012.

**Recommendation 5**

**That the City look to the automation incorporated in the Scorecards as an example for improvements in other branches.**

**Management Response**

Management agrees with the recommendation.

The City is in the process of developing corporate and departmental Balanced Scorecards to report on its strategic priorities. Corporate Business Services will investigate the Scorecards currently in use at Public Works by the end of Q3 2012 and will identify automation that could be applied to other branches. The extent of Scorecard automation depends on business intelligence investment decisions as outlined in the management responses to Recommendations 2 and 3.

**4.1.2.2 Public Works – Fleet – Operating Costs per km****Controls**

Controls are designed to help ensure the information from the fleet system M5 used in the calculation of this performance measure is complete and accurate. M5 data is extracted to and manipulated in Excel and then manually entered into the spreadsheet on which the final calculation is made. There is no indication that the data once extracted and manually entered is verified for completeness or accuracy. However, the results are reviewed for reasonableness and compared to prior periods.

Key controls in the process include:

1. Valuation: The Supervisor checks the data in M5 prior to closing a work order to ensure the amount of labour charged is reasonable and the correct parts are charged. Only closed work orders are included in the performance measure.
2. Completeness: Each day, mileage data is automatically transferred from the fuel dispensing system to M5. An Exception report is printed after each upload from Coencorp to M5.
3. Accuracy: The transfer of data from a second system, Coencorp, to M5 results in an "exception screen" that highlights any vehicle mileage that seems unreasonable. Each day a clerk reviews this screen and makes corrections to the data as necessary. According to the Coordinator, the error is most often the result of incorrect manual entry by the driver purchasing the fuel. A clerk reviews the

data that is automatically uploaded from Coencorp to M5 for anomalies and corrects the data as required.

4. Once data is extracted from M5 into Excel, the Coordinator reviews the data for reasonableness and follows up with the relevant manager when necessary.
5. Performance Measurement reports are reviewed by upper Management prior to being released for publication.

### **Design of Key Controls**

Other than by exchange of emails, little evidence is maintained of review controls. Reports are not signed off or initialled. Concerns were found in the design of the following control:

**Accuracy:** The transfer of data from Coencorp to M5 results in an "exception screen" that highlights any vehicle mileage that seems unreasonable. Each day a clerk reviews this screen and makes corrections to the data as necessary. According to the Coordinator, the error is most often the result of incorrect manual entry by the driver purchasing the fuel. A Clerk reviews the data that is automatically uploaded from Coencorp to M5 for anomalies and corrects the data as required.

The thresholds programmed into the M5 system that are used to detect when mileage is unreasonable do not appear to be appropriate. The maximum monthly mileage against which the prorated actual mileage is compared varies depending on the type of vehicle. Maximums range from 20 km per month to as much as 20,000 km per month. Management explained that the maximum km per month for each vehicle type was determined several years ago, and the justification for the choice of maximum is no longer known. Given that some of the thresholds used in this control may be excessively high, the system may fail to identify errors in accuracy of mileage.

Management intends to review the maximums to ensure reasonableness and accuracy.

These controls have an effect on all six performance measures for Fleet Services that are reported in the Quarterly Report to Council, and one out of three performance measures reported to OMBI.

### **Potential for Inaccuracy and Incompleteness**

The following procedures identified in the performance measurement reporting process may lead to inaccurate or incomplete measurement:

1. Data from the M5 data base is extracted to Excel in order to obtain the information required. Errors in completeness and accuracy can occur whenever a data extraction is performed. Further concern stems from the easily-manipulated nature of reports presented in Excel format.

This weakness has an effect on all six performance measures as reported in the Quarterly Report and one out of three performance measures reported to OMBI.

2. Fleet Services indicated that data is not and cannot be reported directly from M5, but requires an extraction to Excel. Without a view of the data and totals from the source database, Fleet Services cannot reconcile the Excel report to ensure all data was captured.

This weakness has an effect on all six performance measures as reported in the Quarterly Report and one out of three performance measures reported to OMBI.

3. When an unreasonable amount of mileage is noted on the exception screen, the clerk will change the mileage under the assumption that it was a data entry error. The clerk does not confirm the actual mileage prior to making the change.

This weakness has an effect on four out of six performance measures as reported in the Quarterly Report.

### **Accuracy of Measure**

Despite the potential for inaccuracy outlined above, the measure of operating cost per kilometre as reported in the 2011 Quarterly Report to Council (First Quarter) was found to be accurate.

Fleet Services maintains an audit trail of documents to support the calculation of the measure of operating cost per kilometre. Measure 60: Operating cost per km – other vehicles (light and heavy) as reported in the January 1 – March 31, 2011 Quarterly Performance Report to Council was \$0.35/km for light vehicles and \$1.12/km for heavy vehicles. These measures were found to be accurate.

The results of the analysis of the controls and weaknesses in the performance reporting process provide confidence that the performance measures reported by Fleet Services are generally complete and accurate. Potential issues stem from the weakness in the control over ensuring the mileage reported is free from error.

### **Recommendation 6**

**That Fleet Services make better use of the automated control by programming reasonable thresholds within the M5 system that will flag potentially inaccurate mileage.**

### **Management Response**

Management agrees with the recommendation.

The Maintenance Group has recently completed an annual review process of the thresholds. There are applicable advanced capabilities within the M5 system that address this recommendation and, as part of continuous improvement initiatives, staff training will be put in place by Q1 2013 to ensure these capabilities are utilized.

### **Recommendation 7**

**That Fleet Services incorporate automation in performance measurement reporting where feasible.**

#### **Management Response**

Management agrees with the recommendation.

An intradepartmental team has been developed, consisting of staff from the Fleet Services branch and the Business Services branch to incorporate automation in performance measurement reporting where feasible. This will be completed by the end of Q4 2012.

### **Recommendation 8**

**That Fleet Services participate in the Service Excellence Scorecards initiative within Public Works.**

#### **Management Response**

Management agrees with the recommendation.

An intradepartmental team, consisting of staff from the Fleet Services branch and the Business Services branch, is working to further develop the monthly Service Excellence Scorecards to include monthly reports for Fleet Services.

The Fleet Services Management Team is championing the development of Strategy Maps and the Balanced Scorecards emphasizing the culture of Service Excellence and accountability within the branch and in keeping with departmental and corporate initiatives.

The development of monthly Service Excellence Scorecards for Fleet Services will be completed by Q4 2012.

### **Recommendation 9**

**That Fleet Services, prior to correcting the erroneous mileage, verify the reason for the error and the actual mileage.**

#### **Management Response**

Management agrees with the recommendation.

A comprehensive review of the reasons for erroneous mileage was undertaken by Fleet Services that revealed the main cause to be incorrect codes in the Fleet Management System (see Recommendation 6) and human error (either entering the vehicle specification information or staff fuelling vehicles).

As noted in the management response to Recommendation 6, steps will be taken to optimize the thresholds in Fleet's Management Information System. In addition, in late 2011 Fleet Services launched a communications campaign to inform clients of the importance of accurate meter readings and to remind supervisors of their responsibilities for ensuring compliance. As part of this campaign to improve mileage reporting, posters were developed and will be affixed to all City fuelling stations across the City by Q3 2012. Finally, the City is updating the fuel system software that will allow for more interactive exchange with staff fuelling vehicles, which will greatly increase the accuracy of mileage being manually inputted.

#### **4.1.3 The Business Intelligence (BI) Tool**

A new Business Intelligence (BI) tool is in the implementation phase at the City. The BI tool is intended to facilitate performance measurement across the City by providing access to data gathered in many systems through the use of one system. Tied into the new balanced scorecard performance measurement framework, the BI tool intends to facilitate reporting on the four balanced Scorecard quadrants: customer, financial, HR and service. Management explained that the abilities of the system will be limited in the first phase. The system will facilitate reporting in one area, but will not yet allow reporting on a combination of areas. For example, the system will facilitate reporting on financial information, and on HR information. However, if a performance measure incorporates both HR and finance, the system will be limited in its effectiveness.

In composing the BI Strategic Plan, Management identified several issues with the existing performance measurement processes including the following:

- Inefficient reporting processes;
- Lack of data accessibility and integration;
- Lack of consistent information;
- Lack of BI organization and communication; and,
- Lack of performance measurement and BI capability.

If the BI tool operates as intended, and as described in the strategic plan, it will improve internal controls over performance measurement. Unlike the Excel environment which does not protect against errors in uploading from the source database, data entry errors, making changes to the source data, or otherwise manipulating the outcome of the performance measurement calculation, the BI tool will offer an environment that promotes greater completeness and accuracy. Given the extensive amount of exporting and data entry into Excel identified during the course of this audit, the BI tool also has the potential to improve the efficiency with which performance measures are calculated and reported.

Although the strategy document indicates that almost all departments were included in interviews, discussions with Management during the course of this audit found that not all key stakeholders are aware of the tool or its possible benefits to their operations. At the time of the audit there was no communications strategy in place however, one was intended for September – November 2011.

While the City is currently in the process of developing and implementing business intelligence software tools, focus has been on the development of Finance and HR data marts only. No decision has yet been made to further develop BI for the Operations and Customer Service components and expand the use for balanced scorecard purposes. There are significant costs associated with this decision. As such, any communications with stakeholders have been limited to the development of the two data marts noted above.

### **Recommendation 10**

**That the City examine the possible benefits of the Business Intelligence tool to all potential users, and build in the necessary functionality to assist in performance measurement reporting wherever it is cost beneficial.**

#### **Management Response**

Management agrees with the recommendation.

As per the management response to Recommendation 2, there is currently no budget allocation for investment in additional Business Intelligence tools for the corporation. Corporate Business Services will conduct a cost-benefit analysis to determine the feasibility of extending the current Business Intelligence tool for broader use across the corporation and will provide recommendations to the City Manager by the end of Q2 2012. If and when an additional investment is made in Business Intelligence tools, the appropriate information will be communicated to the relevant management and staff across the corporation.

## ***4.2 Audit Objective 2: The City's Balanced Scorecard corporate performance measurement framework appropriately aligns Council led strategic planning, departmental operational planning, budget decision support and results reporting requirements.***

### **4.2.1 The Balanced Scorecard Model<sup>2</sup>**

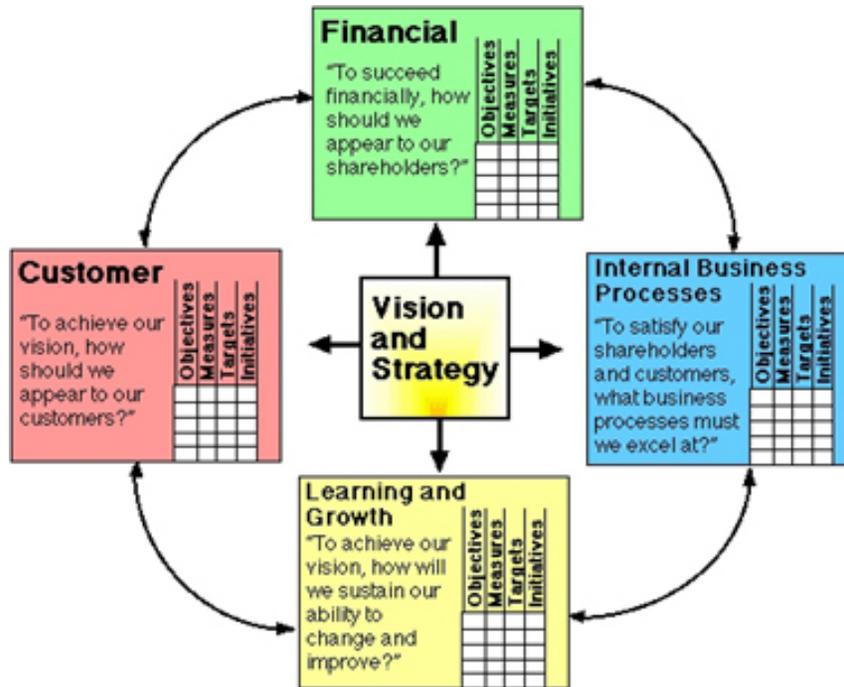
The balanced scorecard is a strategic planning and management system that is used extensively in business, government, and non-profit organizations to align business activities to the strategy of the organization, improve communications and monitor organization performance against strategic goals. It is a performance measurement framework that adds strategic non-financial performance measures to traditional financial metrics to give managers and executives a more balanced view of

---

<sup>2</sup> This section is excerpted from [www.balancedscorecard.org](http://www.balancedscorecard.org).

organizational performance. It provides a clear prescription as to what companies should measure and provides feedback on the internal business processes and external outcomes in order to continuously improve strategic performance and results.

The typical four quadrants of a balanced scorecard framework are outlined in the diagram below:



Adapted from Robert S. Kaplan and David P. Norton, "Using the Balanced Scorecard as a Strategic Management System," *Harvard Business Review* (January-February 1996): 76.

#### 4.2.2 The New City-wide Model

Dating back to the creation of the amalgamated City, there has been an ongoing commitment by Management to measuring service delivery performance via well-designed key performance indicators. While these efforts are commendable, the evidence suggests an absence of a clear and consistent course with various approaches having been designed, tested, partially implemented and then discarded.

The Strategic Branch Review (SBR) exercise is a case in point. In 2008, Council approved the Strategic Branch Review concept and at the end of 2008, seven branches had completed a Strategic Branch Review. In 2009, the Audit, Budget and Finance Committee recommended that Strategic Branch Review be incorporated in the development of the departmental service excellence plans. In May 2011, Council adopted the Corporate Planning Framework (Ref. No. ACS2011-COS-ODP-0007) which replaces the existing Performance Management and Reporting Framework, the Integrated Planning Framework and the Strategic Branch Review Process.

The focal point of the City's new planning and performance measurement framework are the organization-wide priorities set out by Council in the summer of 2011. These priorities were endorsed in a July 2011 report. The Term of Council strategic priorities are as follows:

- Economic Prosperity;
- Transportation and Mobility;
- Environmental Stewardship;
- Healthy and Caring Communities;
- Service Excellence;
- Governance, Planning and Decision-Making;
- Employee Engagement; and,
- Financial Responsibility.

Term of Council priorities are articulated through the strategy map, which provides the tools for integrating priorities, programs and services to what the City wants to achieve over the Term of Council. The strategy map links strategic planning with performance measurement by converting strategic objective statements into measures and targets that will be captured in the City's Balanced Scorecard. The draft strategy map includes consideration of the following key elements that will form the 2011-2014 City Strategic Plan:

- Long-Term Sustainability Goals;
- Term of Council Vision;
- Constituents (defined in the strategy map as residents, enterprises and visitors);
- Strategic Priorities;
- Strategic Objectives; and,
- Strategic Initiatives.

The new planning and measurement framework includes 84 strategic initiatives that flow/cascade from the strategic priorities. These initiatives are the activities the City will undertake to meet the strategic priorities and desired outcomes. A corporate Balanced Scorecard will be developed in support of the strategic priorities and objectives.

Below Council's approved strategy map and strategic priorities will be a series of departmental business plans. These departmental plans will adopt the 84 strategic initiatives for implementation. The departmental business plans will each feature a Balanced Scorecard to set strategy, establish targets and measure actual results versus those targets. Many of the department plans will have to encompass multiple core services and some core services will be split across departmental plans. These complexities are unavoidable when business planning is based on organization structure. By design, the departmental Balanced Scorecards will also need to reflect the 84 strategic initiatives and incorporate a host of core services within individual

score cards. It is noteworthy that there is no component set out below the department level, nor is there a component specifically aligned to core City services.

### **4.2.3 Assessment of City-wide Model**

#### **Alignment**

The proposed new model clearly addresses the need for alignment between Council-level Strategic Planning and Department-level operational planning. Departmental operational planning will be the focus for executing the 84 strategic initiatives. Departmental-level budgets will be adjusted to ensure adequate resources are in place to execute the 84 strategic initiatives.

#### **Planning/Target Setting**

Departmental business plans and Balanced Scorecards will set strategy and measure actual results against planned results contained in the departmental strategic plans. It is unclear whether targets/results will be presented for new initiatives.

#### **Results-Based Reporting**

The cascading corporate and departmental Balanced Scorecards will provide an appropriate link to create a Plan-Deliver-Evaluate cycle. Results will be interpreted in a planned versus actual format.

#### **Budget Decision support**

Budgets have been adjusted to reflect the marginal resources required to implement the 84 strategic initiatives. It is unclear whether the departmental business plans will be comprehensive (dealing with all internal organizational units) or deal with new initiatives beyond the year over year status quo. An exception based departmental business plan will not integrate well with budget decision-making.

#### **City Model Potential Limitations**

The City's approach to the Balanced Scorecard is organizational-structure based rather than program/service based. As such, there is the risk that the Balanced Scorecards will not measure performance at the service or program level. Management has indicated that departments are currently developing their strategic plans and Balanced Scorecards to support the achievement of the term of Council strategic priorities, objectives and initiatives. These plans will also include critical operational priorities that relate to services delivered by branches, and thus, performance measures will be incorporated into the departmental strategic plans and scorecards. For the Balanced Scorecard model to be effective, it is important that they are linked to departmental plans and operational priorities as well as Council priorities.

### **Recommendation 11**

That, in developing the Balanced Scorecards, the City ensure they are aligned with departmental strategic plans and critical operational priorities as well as term of Council priorities.

#### **Management Response**

Management agrees with the recommendation.

Departments are currently developing their strategic plans and Balanced Scorecards to support the achievement of the term of Council strategic priorities, objectives and initiatives. Their plans will also include critical operational priorities that relate to services delivered by branches, and thus, performance measures will be incorporated into the departmental strategic plans and scorecards. This recommendation will be implemented by Q4 2013.

### **4.3 Audit Objectives 3 to 5**

***Performance measures and time series data reported to Council, Management and external stakeholders are complete.***

***Key performance indicators (derived from a representative cross-section of City services and support functions) are appropriate and relevant from a design perspective - in terms of operational planning and target setting, budget decision support, and results based accountability reporting.***

***The City understands the cost/benefit relationship associated with performance measurement framework and indicator design, implementation and ongoing tracking/reporting. The benefits accruing in terms of service delivery results/accountability improvement have been demonstrated outweigh the ongoing direct and opportunity costs of measurement.***

The following section presents the results of an assessment of selected Key Performance Indicators (KPI) currently in use within various City departments. Given the City's decision to pursue the Balanced Scorecard approach to performance measurement, the assessment is focussed on the suitability of these KPIs for the new model.

### 4.3.1 Solid Waste Management Key Performance Indicators (KPIs)

Key performance indicators for Solid Waste Management fall into the following categories:

1. Quarterly Performance Report to Council includes three distinct indicators; tonnes of recycled waste versus tonnes sent to landfill, diversion rates (black and blue box) in multi-residential and residential curbside delivery models and total diversion rates for all streams in the curbside model. All three indicators are measured by the reported quarter versus the same quarter from previous years.
2. Annual OMBI Report.
3. Waste Diversion Ontario (WDO) Data Call which supports waste diversion funding allocations to Ontario municipalities. These allocations are based on efficiency and effectiveness performance indicators, as well as service delivery “best practice” models featuring various combinations of collection, disposal and processing technologies and tools. These “best practice” models remain confidential to the WDO. The WDO Data Call includes a myriad of cost, revenue, unit cost, recycling rates and program design data. A performance factor (based on this data) is calculated for each municipality and used to allocate a fixed amount of annual WDO funding. This data is not used internally to drive performance improvement or accountability at this time.
4. National Solid Waste Benchmarking Initiative that will focus on a range of specific “best practices” and a wider portfolio of performance indicators than OMBI. The Initiative sets out 6 desired performance outcomes with more than 30 performance measures are clustered around these 6 desired performance outcomes:
  - Be cost effective;
  - Run effective operations;
  - Reduce waste;
  - Protect the environment;
  - Have sufficient capacity; and,
  - Change customer behaviour and mindset.
5. Contractor Monitoring Reports established by Solid Waste Management focus on collection performance (tonnes, collection stops and resident service calls data) across service districts. Relative performance across districts and time series performance within districts are both being considered by staff overseeing contracts. Contracts have been created across geographic zones to create managed competition, price discipline and service quality urgency. Market shares across internal and external service providers can change over time based on the performance inferences derived from these reports.

The following table highlights several of the KPIs currently in use within Solid Waste and provides commentary on their suitability for the new Balanced Scorecard model. OMBI indicators are not included here as this is discussed in a separate section of this report. In addition, because the WDO data is not used internally to drive performance improvement or accountability at this time, it has not been included.

Performance Indicator	Source	Suitability for Balanced Scorecard
Recycled tonnages versus landfilled tonnages	Council Quarterly	Suitable - The changing ratio of these two disposal streams is indicative of progress towards diversion outcomes. However, if reported individually, the tonnages become less relevant statistics rather than performance indicators. Would fit into a business processes quadrant of a Balanced Scorecard.
Multi-residential (black and blue box) diversion rate	Council Quarterly	Suitable - Diversion rates represent an important (but not exclusive) perspective on system performance. Would fit into a client satisfaction quadrant of a waste management balanced scorecard.
Residential curbside (black and blue box) diversion rate	Council Quarterly	Suitable - See previous comments.
Residential curbside (all streams) diversion rate	Council Quarterly	Suitable - See previous comments.
Portfolio of 10-12 per household, per capita and per tonne unit cost performance indicators (collection, processing, disposal, environmental monitoring)	National Solid Waste Benchmarking Initiative	<p>Suitable - Unit cost indicators provide an essential counter-balance to diversion rate indicators by linking cost outcomes to environmental outcomes and highlighting tradeoffs. Can be utilized for Ottawa versus Ottawa over time or for point in time peer comparison.</p> <p>A peer comparison ranking of Ottawa's entire unit cost portfolio of indicators could be developed for summary reporting and assessment.</p> <p>Would fit into a financial performance quadrant of a waste management Balanced Scorecard.</p>
Facility turnaround times	National Solid Waste Benchmarking Initiative	<p>Suitable - Referring to landfill and transfer station turnaround times for the public re: drop-off of various waste streams and specialty items.</p> <p>Would fit into a business processes quadrant of a waste management Balanced Scorecard.</p>

Performance Indicator	Source	Suitability for Balanced Scorecard
Tonnage flows per capita (garbage, organics, recycling)	National Solid Waste Benchmarking Initiative	Suitable – Measures progress/ trends by tracking per capita changes in garbage flows versus organics and recycling flows.  Would fit into a client satisfaction or business processes quadrant of a Balanced Scorecard.
Annual diversion rate	National Solid Waste Benchmarking Initiative	Suitable – Diversion rates represent an important (but not exclusive) perspective on system performance.  Would fit into a client satisfaction quadrant of a waste management Balanced Scorecard.
Annual backyard composters sold	National Solid Waste Benchmarking Initiative	Not suitable – This is a statistic not a performance indicator. It should be converted into a population based penetration rate (composters sold per 1,000 population) to be suitable.
Greenhouse gas emissions (collection, processing, disposal, energy from waste)	National Solid Waste Benchmarking Initiative	Suitable – Measures broader environmental impact of collection, processing and disposal options/techniques and models from a climate change environmental perspective. Promotes an essential counter-balance to shorter term unit cost and financial perspectives.  Would fit into a client satisfaction or business processes quadrant of a Balanced Scorecard.
Landfill total airspace availability	National Solid Waste Benchmarking Initiative	Suitable – Measures security/adequacy of landfill capacity on a material basis. A useful counterbalance to higher cost diversion solutions and desired GHG outcomes.  Would fit into a client satisfaction or business processes quadrant of a Balanced Scorecard.
Total waste (all streams) output per household	National Solid Waste Benchmarking Initiative	Suitable - Measures progress in driving behavioural change that in turn supports a wide variety of environmental policy outcomes.  Would fit into a client satisfaction or business processes quadrant of a Balanced Scorecard.

The following outlines our assessment of the Solid Waste Management KPIs against the audit objectives.

### Planning/Target Setting

The draft Solid Waste Management Master Plan will set a number of system performance targets in the future. To date, explicit performance targets have not been set using either OMBI or Quarterly Council Report performance indicators or data trends. Performance measurement reporting is not yet properly integrated into setting business planning or budget process targets. Progress towards a Balanced Scorecard must include integrated target setting.

## **Results-Based Reporting**

The three Quarterly Council Report Indicators are relevant but too narrowly scoped. The scope of the National Solid Waste Benchmarking Initiative represents a more holistic approach to the entire waste management service delivery model. An entire integrated Balanced Scorecard with indicators occupying the four performance quadrants is the appropriate tool to ensure holistic reporting.

Even if reporting were suitable in terms of scope, targets have been absent historically. The Master Plan targets may be suitable at a high level, but require a secondary portfolio of targets to inform operations and annual business planning.

## **Budget Decision Support**

We could find no evidence that performance measurement data plays a significant role in supporting budget deliberations to allocate financial resources across services and programs. While performance measurement data may be assembled in the budget process but it does not play a role in linking service delivery targets/outcomes to specific budget allocations. The absence of a time/labour tracking makes it difficult to understand activity based unit costs and thereby make informed decisions about where and how to reallocate resources to meet Council or operational priorities.

## **Cost-Benefit Awareness**

Participation in OMBI is viewed as having little tangible benefit; thus the interest in the National Solid Waste Benchmarking Initiative. High-level OMBI data lacks sufficient depth to shed light on overall operational performance or achievement of desired policy outcomes. As such, the cost-benefits are questionable. OMBI is discussed in more detail in a separate section of this report.

Data input into the WDO initiative is a requirement for funding. However, because the models of best practice waste management system design are confidential, they were not available for review.

City staff display a well-developed awareness of the need to drive operational improvement using performance data in a contract management model and in a managed competition environment.

As stated earlier, the current Solid Waste performance reporting within the Council Quarterly Report indicators are too narrowly scoped; ignoring key elements of the business (e.g., landfill, Collection, Contractor performance).

## **Recommendation 12**

**That, in the development of the Balanced Scorecard, Solid Waste Management incorporate the scope and indicators from the National Solid Waste Benchmarking Initiative along with current quarterly reporting and contractor management indicators.**

**Management Response**

Management agrees with the recommendation.

The Environmental Services department will review the quarterly reporting measures to determine the costs, benefits and select key performance indicators that, where feasible, will be incorporated into the departmental Balanced Scorecard by Q4 2012.

The National Solid Waste Benchmarking Initiative's solid waste indicators are currently being developed and once completed will be evaluated for incorporation into the departmental Balanced Scorecard by Q4 2013.

**4.3.2 Recreation Facility and Sports Field Scheduling Performance Indicators**

Key performance indicators for Recreation and Sports Field scheduling fall into the following categories:

1. Quarterly performance report to Council; and,
2. Annual OMBI reporting.

The following table highlights several of the KPIs currently in use within Recreation and Sports Field scheduling and provides commentary on their suitability for the new Balanced Scorecard model. Proposed new indicators are also outlined. OMBI indicators are not included here as this is discussed in a separate section of this report.

Performance Indicator	Source	Suitability for Balanced Scorecard
Population controlled service demand - Unique program participants per 1,000 population	Council Quarterly	Not Suitable - Does not measure the performance of recreation programming or facility rentals offerings in maximizing utilization and revenue generation. Instead it focuses on service outputs offered relative to the size of the user population. This supply versus demand issue is a governance question not a management tool for driving improvement and accountability.
Population controlled service demand - Program participant visits per 1,000 population	Council Quarterly	Not Suitable - See previous comments.
Total "global" program utilization rate	Council Quarterly	Not suitable - Overly aggregated, combining aquatics with arena based or camp based programming. Year over year variance explanation would inevitably require program-specific data at more detailed level. Therefore no management insight is provided.
Portfolio of performance indicators focussed on program utilization including:  - Aquatics program utilization by facility and City-wide  - Arena based program utilization by facility and City-wide  - Other program areas utilization by facility and City-wide - Configured for annual and by seasonal to support seasonal trend monitoring	Special performance report created for audit purposes - Recommended for ongoing implementation	Suitable - Program utilization rates by facility, program and period can foster internal benchmarking and target setting to drive continuous improvement. Would fit into a business processes performance quadrant of a recreation Balanced Scorecard or possibly a financial quadrant.
Portfolio of performance indicators focussed on facility rental utilization including:  - Aquatics rental utilization by facility and City-wide  - Arena pad rental utilization by facility and City-wide  - Sports field rental utilization by facility and City-wide  - Reporting configured for annual seasonal to support seasonal trend monitoring  - Prime time and non-prime indicator data streams/categories (applies only to arena rentals)	Special performance report created for audit purposes - Recommended for ongoing implementation	Suitable - Facility rental utilization rates focus attention on the key performance question of how best to boost revenue generation and cost control for non-prime hours that are staffed and available for scheduling.  Rental utilization rates by facility and period can foster internal benchmarking and target setting to drive continuous improvement.  Would fit into a business processes performance quadrant of a recreation Balanced Scorecard or possibly a financial quadrant.

The following outlines our assessment of Recreation Facility and Sports Field scheduling KPIs against the audit objectives.

### **Planning/Target Setting**

Facility-specific aquatic and arena utilization reporting can be extracted from the CLASS scheduling system. Regular ongoing reports are not readily available and as such a series of special CLASS reports were prepared for purposes of this audit. These special reports were well designed and accounted for variations in registration period, and prime time versus non-prime periods of the scheduled day/week. As well, rental versus programming utilization rates were produced in the special reports.

Although clearly of value, Management pointed out the labour- and time-intensity of producing the reports. Data had to be pulled from CLASS and massaged into an appropriate format for analysis and reporting. Staff noted that less ambitious ad-hoc performance reports could be prepared from CLASS upon request by facility supervisors. As was found in the 2006 Audit of Parks and Recreation, there is no evidence that such ad-hoc reports are an established management practice or expectation. There is also no evidence that a performance measurement culture is yet imbedded across recreation facilities. While utilization and participation rate performance data is periodically shared with facility supervisors, there is no requirement to do anything with the data. There are no facility-specific or program-specific utilization targets currently in place.

Unit cost indicators can only be prepared for stand-alone facilities and their program (i.e., arenas or pools not part of a campus-type facility). Hybrid costs are blended across programs/facilities because energy and other costs cannot be isolated between an arena pad, pool or fitness/gym facility components. Therefore total budget costs cannot be reconciled with available program or facility rental costs.

Explicit system-wide and facility-specific performance targets need to be developed as part of a results based model of management. Targets need to reflect a variety of performance data sources, indicator trends and data stories.

### **Results-Based Reporting**

Current reporting is not regular and is inadequate in scope. The Quarterly Council Report indicators are not relevant to improving service delivery and are too narrowly scoped.

The design parameters and level of detail associated with the special report prepared for this audit represents a solid basis for future regular reporting. However, technical refinement of data extracts from CLASS will be required.

Actual performance data must be reported in terms of variance from target achievement.

## **Budget Decision Support**

Given the absence of explicit service delivery targets, recreation scheduling performance measurement data does not play a significant role in supporting Management or Council's budget deliberations to allocate financial resources across services and programs. Currently, there is no correlation between the budget allocation and specific levels of rental or program utilization results.

## **Cost-Benefit Awareness**

Management and staff acknowledge there is work to be done in fostering an ongoing, measurement supported culture across facilities and their supervisors.

Participation in OMBI is viewed as having little tangible benefit. High-level OMBI data lacks sufficient depth to shed light on overall operational performance or achievement of desired policy outcomes. As such, the cost-benefits are questionable. OMBI is discussed in more detail in a separate section of this report.

The current Council Quarterly Report indicators are too narrowly scoped. They lack relevance by ignoring key elements of overall operations and utilization management (e.g., facility and sports field rentals). Instead the measurement focus has been on population-driven community demand, governance decisions around supply versus demand, and service level questions.

In making the following recommendation, we are mindful of the potential level of effort required to implement all possible performance measures. As such, the use of the word "selected" is intended to indicate that it is left to Management to determine which specific performance measures would be most cost-effective to implement.

## **Recommendation 13**

**That, in the development of the Balanced Scorecard; Parks, Recreation and Cultural Services Management incorporate selected key performance indicators featured in the Special Performance Report prepared for the audit, including the portfolio of performance indicators focussed on program utilization and facility rental utilization.**

### **Management Response**

Management agrees with the recommendation.

The Parks, Recreation and Cultural Services department will undertake a cost-benefit analysis of selected key performance indicators as featured in the Special Performance Report prepared for the audit. Those with a positive cost-benefit analysis will be incorporated into the development of the departmental Balanced Scorecard by the end of Q4 2012.

### 4.3.3 Social Housing Performance Indicators

Social Housing utilizes measurement tools/indicators to assess the performance of the 55 housing providers within the City. Performance data is also used to evaluate its own performance results as the system's Service Manager. Key performance indicators for social housing (system manager role) fall into the following categories:

1. The Quarterly Performance Report to Council includes two distinct social housing indicators; nightly bed occupancy rate in emergency shelters and the percentage of individuals and families on the waiting lists that have been placed.
2. Annual OMBI reporting.
3. Legislated provincial compliance reporting of key performance indicators submitted by social housing service providers. Data is gathered via the social housing provider compliance checklist. Provider performance data, primarily financial, is consolidated at a global level in the service manager information return.
4. Social housing site visits for the entire system of 55 providers – these compliance and improvement visits are based on a 3-5 year coverage cycle for the entire system.
5. An ISO-style framework for social housing standards used by providers, in collaboration with the Service Manager, to drive legislated compliance and continuous improvement. The result of an operational review using the framework is similar to an accreditation model found in health care and other public agency settings.
6. Quarterly reporting from the Social Housing Registry – the contracted non-profit entity responsible for waiting list management.
7. Social Housing Services Corporation performance indicators initiative (see figures below). The system is operating as a benchmarking database for both providers and service managers. Data trends can be compared against other providers/service managers at a point in time. Data can also be compared for Ottawa Over Time. The performance indicators are relatively simple, broader than OMBI, and provide a more balanced focus on cost efficiency results, lifecycle capital sustainability and revenue collection performance. The model places a strong emphasis on customized comparisons of similar systems. The figures below demonstrate the provider stream and the Service Manager stream of performance measurement. The online IT tool facilitates data entry and customized graphic presentations of peer comparisons and a participant's own data over time.

SHSC - Performance Indicator System - Microsoft Internet Explorer

Address: http://www.shscorp.ca/shscnew/(gnq0af45y01rgs55bcdpu145)/performanceindicator.aspx?page=5M

**Social Housing Services Corporation**

Services & Products | Continuous Improvement | Consultants Directory | About SHSC

SHSC Home | Continuous Improvement | Performance Indicator System

**Enter/view info about your Service Manager**

**Enter/edit/view your performance data**

**View comparisons with other service managers**

**About the Performance Indicator Initiative**

**Performance Indicator Definitions**

**Online Help**

LOGOUT  
Edit Your Profile

This page gives you a snapshot of your performance and links to graphs with more detail. The blue bars compare your results with the peers you chose on the "Enter/view info about your Service Manager" screen. They are based on the principle of "standard deviation". [Click here](#) to read more about it.

If you've entered data for an indicator, click on a graph icon to see how your results compare to your peers. Click on the title above the graph icons to see what each graph will show you. If you haven't yet entered information for an indicator, click on "data required" to add data.

Average	Description of performance indicator	Rank by Tenths	Scatter Graph	Year-over-Year (Average)	Rank All
	Administration Costs as a Percentage of Total Costs				
	Subsidy Per Unit				
	Total Costs of Coordinated Access per Household on the Wait List				
	Average RGI Tenant Revenue per Unit				
	Administration Costs per Unit				

©SHSC 2004

Affordable Housing Best Practices - Microsoft Internet Explorer

Address: http://www.shscorp.ca:8080/SHSCHP

**Enter/view info about your Housing Provider**

**Enter/edit/view your performance data**

**View comparisons with other housing providers**

**About the Performance Indicator Initiative**

**Performance Indicator Definitions**

**Online Help**

Average	Description of performance indicator	Rank by Tenths	Scatter Graph	Year-over-Year (Average)	Rank All
	1. Manageable Cost per Unit				
	2. Maintenance and Administration Cost per Unit				
	3. Arrears (%)				
	4. Bad Debt Rate				
	5. Other Revenue per Unit				
	6. Operating Surplus or Deficit per Unit				
	7. Total Capital Reserves per Unit				
	8. Annual Capital Contribution per Unit				

Key performance indicators for ‘the system manager’s role’ are represented by those from the “service manager stream” of the Social Housing Services Corporation performance indicators. Key performance indicators for ‘the system manager’s role’ are not represented by the provider stream.

8. Ottawa Lifecycle Asset Management Initiative. Previous lifecycle asset management assessments have been effort intensive one-time calculations. Asset inventories, valuations and financial assessments were not modeled for “what if” scenarios due to the absence of appropriate software for forecasting. This static calculation approach is now being replaced by an ongoing “what if” software modeling capacity.

The following table highlights several of the KPIs currently in use within Social Housing and provides commentary on their suitability for the new Balanced Scorecard model. Proposed new indicators are also outlined. OMBI indicators are not included here as this is discussed in a separate section of this report.

Performance Indicator	Source	Suitability for Balanced Scorecard
Population controlled service demand - Utilization rate of emergency shelter beds	Council Quarterly	Not Suitable - Does not measure the performance of the Service Manager in creating a financially viable, capital sustainable and operationally efficient social housing system. It simply measures demand overflow relative to the number of units being provided.
Waiting list placement rates/turnover rate	Council Quarterly	Not Suitable - Does not measure the performance of the Service Manager in creating a viable, sustainable and operationally efficient system. It simply measures the movement of the waiting.

Performance Indicator	Source	Suitability for Balanced Scorecard
<p>Portfolio of performance indicators including:</p> <ul style="list-style-type: none"> <li>• Maintenance unit costs</li> <li>• Maintenance plus admin unit costs</li> <li>• Arrears</li> <li>• Bad debt rates</li> <li>• Other revenue per unit</li> <li>• Surplus/deficit per unit</li> <li>• Capital reserves/unit</li> <li>• Capital contribution per unit</li> </ul>	<p>Social Housing Corporation performance measurement initiative and online benchmarking database</p>	<p>Suitable – Maintenance Unit cost indicators can be compared to revenue indicators and capital investment indicators to make useful inferences about sustainable operations. These inferences can be referenced against peers or against Ottawa’s system over time.</p> <p>Flexible peer selection, places the focus on investigating potential management and service delivery improvements.</p> <p>Would fit into a financial performance quadrant of a Social Housing Balanced Scorecard. Should also apply to a business processes quadrant of a Social Housing Balanced Scorecard.</p>
<p>Lifecycle based capital investment rating/score</p>	<p>New and recommended</p>	<p>Suitable - Measures progress in making annual capital rehabilitation or replacement investments that reflect lifecycle sustainability. A lifecycle asset management rating score that tracks the gap between required and actual capital investments overtime would be the leading performance indicator for the social housing system and the service manager.</p> <p>Would fit into a client satisfaction, or financial, or business processes quadrant of a Balanced Scorecard.</p>

The following outlines our assessment of Social Housing Service Manager KPIs against the audit objectives.

**Planning/Target Setting**

The Province imposes a series of financial controls throughout the annual budget process. However, these budget targets are not linked to explicit system performance targets derived from indicators. The Service Manager ensures the indicator data trends fall within a tolerance range of measurable results. There are

no system-wide explicit performance targets (i.e., health and operational viability) in place for Council and providers to monitor/assess the performance of the Service Manager.

The Service Manager can effectively communicate the following system-wide outcomes that should inform the design of a Balanced Scorecard:

1. Funds out the door to providers in a timely and accurate fashion. Calculations and processes that account for the complex web of year-ends, mortgage rollovers and changing mixes of tenant subsidies;
2. Preventative capital maintenance, rehab and replacement programs and allocations that are evidence-based, and adhere to life-cycle management principles and practices;
3. Positively impact vacancy loss and unit utilization rates/trends in collaboration with providers. One critical tool in this regard is oversight of a Best Practices waiting list registry; and,
4. Explicit system-wide performance targets need to be developed as part of a results based model of management. Targets need to reflect a variety of performance indicator perspectives, trends and data-supported performance outcomes. Targets need to cascade up and down the system.

The City is focussing its Service Manager performance measurement effort around improved asset management capacity. A portfolio-wide inventory and condition rating project in Ottawa (55 providers) – in combination with new asset management/forecasting software – is nearing completion. The new asset management toolkit will allow for system-wide calculation of life-cycle based funding requirements and potential unfunded liabilities. The software will create “what if” scenarios by comparing current annual capital rehabilitation/replacement funding versus ideal life-cycle derived funding levels. Project-specific funding “what if” scenarios and requirements will be produced in addition to global system-wide scenarios. The modeled deficit of actual funding patterns versus life-cycle derived required funding constitutes a key system sustainability performance indicator. We believe that the lifecycle asset management initiative (including software) should be the centre piece of the evolving service manager performance framework. While the Branch is developing an asset management toolkit, it is important to note that provider training will be required (55 providers-multiple staff), the tool must be populated with the required data; data must be kept current by all parties; and reports must be planned, created and validated before a service manager performance framework can result.

## **Results-Based Reporting**

The Quarterly Council Report indicators are not relevant to improving service delivery, and are too narrowly scoped. Nightly Occupancy Rates for emergency shelters measure service supply versus service demand and represents a governance issue rather than a service delivery performance issue. It merely comments on the overflow of service demand based on the current number of social housing beds.

The second quarterly indicator – Waiting list placement rates – simply documents the turnover rate of the waiting list across a given period of time. It does not provide insight into Registry performance by measuring placement cycle times for instance. It is unclear what meaning or performance inferences to ascribe to changes in placement rates over time.

The scope of the Social Housing Corporation performance measurement initiative represents a more holistic approach to performance measurement and benchmarking than OMBI, and can be readily adapted to Ottawa versus Ottawa Over Time. The scope and depth of indicators is superior to OMBI. The technical quality is based on established data submission protocols that are superior to the Municipal FIR.

Given the wide variation in portfolio size and composition and varied local housing market rental conditions across OMBI participants, it is not clear what reporting benefits are derived from benchmarking such a narrow group of peers. The flexible peer selection approach of the Social Housing database is more practical and realistic in terms of discovering and investigating potential best practices associated with high performing peers.

## **Budget Decision Support**

The absence of any explicit service delivery targets at the provider level or system-wide indicates that there is little if any connection between the budget allocation and specific levels of social housing system performance.

## **Cost-Benefit Awareness**

Current performance reporting consists of high-level data lacking sufficient depth or scope to shed light on overall operational performance, best practices in service delivery, or achievement of desired policy outcomes. The Council Quarterly Report indicators are too narrowly scoped and lack relevance – for instance ignoring key elements of overall operations and life-cycle asset management imperatives. Instead the measurement focus has been on population-driven community demand, governance decisions around supply versus demand, and service level questions. While this information may be somewhat instructive about the level of service being offered, it does not contribute to a results based management framework or culture.

In making the following recommendation, we are mindful of the potential level of effort required to implement all possible performance measures. As such, the use of

the word “selected” is intended to indicate that it is left to Management to determine which specific performance measures would be most cost-effective to implement.

#### **Recommendation 14**

**That, in the development of the Balanced Scorecard, Social Housing Management incorporate selected performance measures from:**

- a) the scope/indicators present in the Social Housing Corporation performance measurement database;**
- b) the Asset Management toolkit and forecasting data;**
- c) existing provider reporting tools;**
- d) the continuous improvement implementation program associated with the Framework for Social Housing Standards; and,**
- e) the proposed Lifecycle Based Capital Investment Rating/Score.**

#### **Management Response**

Management agrees with the recommendation.

The development of an operational Social Housing Management Balanced Scorecard will include selected key indicators from the five areas noted in the recommendation, grouped as follows: The Housing Services Corporation performance indicators for Service Managers, listed as item a); the framework of the existing Housing Provider reporting tools, including the Social Housing Standards, listed as items b) and e); and the Asset Management Tool once the tool is fully implemented, the necessary reports developed and the data is available, listed as items c) and d).

This recommendation will be implemented by the end of Q4 2013.

#### **4.3.4 Fire Services Performance Indicators**

Key performance indicators for Fire Services fall into the following categories:

1. Quarterly Performance Report to Council includes three published indicators; annual volume of response incidents – reported at a highly aggregated level, number of fire related injuries and fatalities and average monthly call volume – again reported at a highly aggregated level.
2. Annual OMBI report.
3. Participation in the Commission on Fire Accreditation International (CFAI) – newly renamed as the Centre for Public Safety Excellence. The CFAI process generates ISO-style process documentation/improvement, quality management and a portfolio of key performance indicators. The indicators will be aligned with the Fire Services Branch delivery processes. Performance targets will be developed to drive budget and deployment decisions. We strongly support this initiative as a source of definitive performance indicators and a future Balanced Scorecard. The CFAI self-assessment will answer three basic questions:

- Is Fire Services Branch effective?
  - Are the goals/objectives/mission being achieved?
  - What are the reasons for the success of the Fire Services?
4. The Fire Services annual report: The report documents key service delivery outputs and features a series of key performance indicators and associated performance targets. The Fire Services Branch has established 90<sup>th</sup> percentile response time targets for initial response. The Fire Services Branch also has established a “10 men in 10 Minutes” response time component/target for family dwellings. The report also sets out a smoke alarm “penetration rate” indicator – measuring the percentage of homes with a functioning smoke alarm. Fire dollar loss is also reported. Unit cost per vehicle hour trend data is presented in a multi-year Ottawa versus Ottawa Over Time format.
5. Production of a monthly Fire Services Performance Dashboard - featuring a series of key performance indicators and data trends, including:
- Detailed call volume statistics by call type;
  - Average response times and run frequencies;
  - Fire “spread control” performance - % confined to original room;
  - % residential fires meeting “10 in 10” standard; and,
  - Sick time and overtime statistics.

The performance dashboard does not drill the data down into stations/platoons at this time. There is no set process driving Management discussion or action related to the dashboard data. The Chief acknowledges the need to better integrate performance data in decision-making, budget and operational planning, and continuous improvement efforts.

The following table highlights several of the KPIs currently in use within Fire Services and provides commentary on their suitability for the new Balanced Scorecard model. Proposed new indicators are also outlined. OMBI indicators are not included here as this is discussed in a separate section of this report.

Performance Indicator	Source	Suitability for Balanced Scorecard
Population controlled service demand – Number of incidents responded to by Fire Services	Council Quarterly	Not Suitable – This workload statistic does not measure the performance of the Fire Services Branch. It simply measures externally driven demand and workload. It is a statistic not a performance indicator.
Monthly average call volume – High level aggregation with no call types	Council Quarterly	Not Suitable – See comments above.
Number of fire related injuries and fatalities	Council Quarterly	Questionable – Low correlation between trends in this indicator and Fire Services performance. As well this measure should be population controlled – injuries or fatalities per 1,000 households.
90 <sup>th</sup> percentile response times for fire, rescue and CTAS 1-2 medical calls	New and recommended	Suitable – 90 <sup>th</sup> percentile response time reporting should become the standard indicator for fire and ambulance. The call process points in time should not be limited to post-notification – it should include dispatch times following the 911 operator handoff to fire dispatcher or the EMS dispatcher handoff to the fire dispatcher for medical calls. Ideally station-specific breakdowns should be included in reporting.  Suitable for balanced scorecard – customer satisfaction or business process quadrants.
Total operating cost (including vehicle and capital depreciation/ reserve charge) per in-service vehicle hour	New and recommended	Suitable – Vehicle hours are the appropriate unit of service denominator that drives costs.  Suitable for Balanced Scorecard – financial quadrant.
Average fire suppression response time (post notification)	Fire Monthly Dashboard	Not suitable – Average based response time measurement is inconsistent with 90 <sup>th</sup> percentile (higher reliability) measurement.

Performance Indicator	Source	Suitability for Balanced Scorecard
Burn spread - % fires contained in the room or structure of origin	Fire Monthly Dashboard	Suitable - Measures a core fire suppression outcome; the containment of property damage and a fire public safety threat.  Suitable for a business process or customer service quadrant of a balanced scorecard.
% Residential fire responses meeting "10 men in 10 minutes" standard	Fire Monthly Dashboard	Suitable - Measures a core fire department service delivery outcome; the ongoing capacity to deliver appropriate fire fighter resources to the scene in a timely fashion in order to generate a suppression response.  Suitable for a business process quadrant of the balanced scorecard.
% Homes with a functioning smoke alarm	Fire Services Annual Report	Suitable - Measures the effectiveness of fire prevention programs in providing City-wide coverage over a fixed time period, and ensuring risk of death or injury is minimized. Preferable to simply measuring fire related death or injury.
% Medical calls featuring a delivered medical intervention by firefighters	New and recommended	Suitable - Medical calls are the largest and fastest growing component of call volume. Indicator measures value for the money associated with tiered response protocols and the mix of medical calls receiving a response. Low medical intervention rates suggest an opportunity to rationalize call responses, save money and also preserve deployment readiness/ positioning for serious structure fire/rescue calls when they occur.

The following outlines our assessment of Fire Services Branch KPIs against the audit objectives.

### Planning/Target Setting

The 90<sup>th</sup> percentile response time targets for urban, suburban and rural calls are definitely a step in the right direction. The target setting process needs to be expanded across the core services map.

### Results-Based Reporting

Current reporting tools are diverse and the indicators presented are inconsistent. For instance in OMBI Fire Services reports 90<sup>th</sup> percentile response times, while in the two of the three Quarterly Council Report are simply work load statistics – they

say nothing about Fire Services Branch performance and offer only limited insight into demand for service. The reported injuries and fatalities are at best tenuously related to fire service performance. OMBI reports unit of service costs using a per vehicle-hour denominator, while the Province's MPMP and OMBI both previously used current value assessment as the cost per unit of service denominator. Many of the reports also mix workload statistics/data (descriptive) with more insightful performance indicators.

Rationalization of the reporting regime across the multiple reporting forums is prudent and will improve organization focus, consistency and accountability via target setting.

### **Budget Decision Support**

While it is recognized that the fire suppression response time targets now in place do support the beginnings of a correlation between the budget allocation and specific levels of fire suppression results, this needs to be broadened across the entire Fire Services Branch.

### **Cost-Benefit Awareness**

Fire staff is not engaged in strategies to change the colour of OMBI ranking "tolerances" to green from red or yellow (favourable). OMBI reporting is seen as a public communication exercise rather than a management improvement exercise. Fire Management and staff analysts are prudently looking to the CFAI process as the preferred route to rationalize performance measurement effort, and extract maximum benefit.

While service supplied versus service demand information may be interesting and instructive regarding the amount of service being offered, it does not contribute to a results based management framework or culture. More emphasis on operational performance accountability and operational measurement/target setting is required.

In making the following recommendation, we are mindful of the potential level of effort required to implement all possible performance measures. As such, the use of the word "selected" is intended to indicate that it is left to Management to determine which specific performance measures would be most cost-effective to implement.

### **Recommendation 15**

That, in the development of the Balanced Scorecard, Fire Services Management incorporate selected performance measures from:

- a) the scope/indicators present in the Monthly Dashboard;
- b) the Annual Report;
- c) the CFAI self-accreditation initiative; and,
- d) the proposed new Performance Indicators:
  - 90<sup>th</sup> percentile response times for fire, rescue and CTAS 1-2 medical calls;
  - total operating cost (including vehicle and capital depreciation/reserve charge) per in-service vehicle hour; and,
  - % medical calls featuring a delivered medical intervention by firefighters.

### **Management Response**

Management agrees with the recommendation.

Fire Services is presently measuring and reporting on the majority of items identified in the recommendation.

The Commission on Fire Accreditation International (CFAI) process currently underway will identify new performance indicators, while validating that the current performance indicators are captured and reported on using industry best practices. Ottawa Fire Services is committed to building a Balanced Scorecard based on its existing performance framework, the addition of performance measures that are identified through the accreditation process, and that where feasible align with the key performance measures identified in the Emergency and Protective Services departmental Scorecard. This recommendation will be implemented by Q4 2013.

Of note, the new guide under the Ontario Fire Marshall's Office has eliminated the "Ten in Ten minutes" response. The guide in place at the time of the audit fieldwork was replaced in late 2011 with the Official Guide Matching Resources, Deployment and Risk Management Response.

### **4.3.5 Water Treatment and Distribution Performance Indicators**

Key performance indicators for Water Treatment and Distribution fall into the following categories:

1. Safe Drinking Water Act and regulations. Performance measures are contained in the Provincially-mandated Operational Plan for the drinking water system, and described in Ontario Regulation 170/03. The Provincially-mandated Operational Plan is part of the Licensing of Municipal Drinking Water Systems O.Reg. 188/07 under the *Safe Drinking Water Act (2002)*. The Operational Plan is required to meet the Provincially-mandated Drinking Water Quality Management Standards.

2. Annual OMBI reports.
3. Management is not currently contributing to the National Water and Wastewater Benchmarking Initiative (NWWBI). Drinking Water Services Management has not participated in the initiative for many years and current Management has not evaluated the NWWBI's performance measures for their usefulness and suitability. However, DWS is interested in obtaining more information on the initiative and evaluating its merits and cost benefits.
4. City participation in the Municipal Performance Measurement Program (MPMP) Financial Information Return (FIR) measures is mandatory. Many of the OMBI measures are mirrors or developments upon the MPMP/FIR measures. Therefore, the incremental work that is required to report on OMBI measures is minimal. This same concept of developing or expanding upon earlier performance metric work is also used for the Municipal Water and Wastewater Benchmarking Initiative (MWWBI).

The following table highlights a representative sample of the KPIs currently in use within Water Treatment and Distribution Service and provides commentary on their suitability for the new Balanced Scorecard model. OMBI indicators are not included here as this is discussed in a separate section of this report.

Performance Indicator	Source	Suitability for Balanced Scorecard
1) Water consumption per capita 2) Number of customer complaints investigated 3) Average time to resolve water quality investigations 4) Average annual residential water bill cost 5) Number of water main breaks per year (5 year rolling average) 6) Infrastructure leakage index 7) Distribution costs per 100 km 8) MOE Annual inspection ratings 9) Water quality health indices	Operational Top Management Review - DWQMS	Suitable: Many of the measures could provide useful information to management across some Balanced Scorecard perspectives (business process, customer); it is noted that the DWQMS approach is based on a continuous improvement model.

Performance Indicator	Source	Suitability for Balanced Scorecard
<ol style="list-style-type: none"> <li>1) Compliance with permit(s) to take water</li> <li>2) Compliance with O.Reg 170/03 (water quality sampling, testing, corrective action, handling complaints, reporting requirements,)</li> <li>3) Compliance with O.Reg. 169/03 (water quality expectations)</li> <li>4) Compliance with O.Reg. 188/07 (licensing)</li> <li>5) Compliance with O.Reg 128/04 (waterworks operators are certified)</li> </ol>	<p>Drinking Water Summary Reports (2010)</p>	<p>Not Suitable: Monitoring mostly compliance is not effective for continuous improvement of the system by Management. It should be noted however that non-compliance with the Safe Drinking Water Act can lead to serious fines by the Province and possible jail sentences. Although specific areas for improvement are not highlighted in this measure, it is important to monitor compliance so that non-compliant areas are identified and immediate attention is focused on remediation in order to limit the City's liability.</p>
<ol style="list-style-type: none"> <li>1) Number of hours of treated water storage capacity at average day demand</li> <li>2) Cost of water quality monitoring per population served</li> <li>3) Water rate for residential using 250 m<sup>3</sup>/year</li> <li>4) Cost of water conservation per population served</li> <li>5) Number of water quality customer complaints</li> <li>6) Number of boil water advisory days per household</li> <li>7) 5 year running average capital reinvestment / replacement value</li> <li>8) Number of field FTE per 100 km of distribution length</li> <li>9) Number of field accidents with lost time per 1000 hours</li> </ol>	<p>National Water and Wastewater Benchmarking Initiative</p>	<p>Suitable: Many of the measures could provide useful information to Management across three Balanced Scorecard perspectives of business process, customer, and financial, but learning/ growth is not addressed.</p>

The following outlines our assessment of Water Treatment and Distribution Service KPIs against the audit objectives.

### **Planning/Target Setting**

Maintenance management key performance indicators are reviewed on quarterly basis to consider equipment and human resources performance. This allows Management to determine needs, consider capital project priorities, and put these projects forward. Major projects are dealt with similarly which are put forward through the City's annual budgeting cycle.

Element 14 (review and provision of infrastructure) in the City's Provincially-mandated Operational Plan under the Drinking Water Quality Management System (DWQMS) establishes the procedure for the annual review of drinking water system infrastructure. This informs a 5-year capital program that in turn contributes to the annual budgeting process.

For long-term planning, the City has an Infrastructure Master Plan that was adopted by Council in June 2009. The Infrastructure Master Plan considers serving the drinking water needs of a projected population of 1.14 million people by the year 2031. The Audit Team notes that the Infrastructure Master Plan makes reference to the municipality's obligations under the Safe Drinking Water Act.

In terms of broader strategic alignment for planning/target setting, Management has noted that Water Supply and Distribution services are a matter of public health. The primary end users are the public and if the drinking water system is not managed properly then it is a public health issue. Management noted that Water Supply and Distribution tends to be seen strategically in an environmental theme; however, Management recommends that Water Supply and Distribution also be strategically aligned to the public health theme of the City's strategic framework, since that is their purpose.

### **Budget Decision Support**

There is a strong linkage between measurement of the system and financial planning. A Financial Plan is a regulatory requirement for Ottawa's drinking water system. The revision of rate structure has been postponed until 2013. The annual DWQMS Management Review report which has a section dedicated to resources required to maintain the Drinking Water Quality Management System.

### **Results-Based Reporting**

The provincially mandated reporting requires Management to produce annual detailed reports for each drinking water system and these reports are made available to the public. The reports are required and prepared annually by regulations under the Safe Drinking Water Act (2002). Council is circulated on two key reports: Annual Summary Report and the results from the annual Management Review. The Summary Report is a compliance report in nature and requires staff to report to

Council on any deviations or non-compliance with established regulations. Staff must report on these deviations and provide recommendations to address non-compliance.

The results from the Management Review provide an overview of the “management” of the drinking water systems and recommendations for continuous improvement. This report highlights the results from internal and external audits, which identify non-conformance and opportunities for improvement. Various operational, maintenance and compliance-type KPIs are monitored and analyzed as part of the Management Review; various compliance-type KPIs are monitored and analyzed as part of the Summary Reports.

Drinking water is a highly regulated field and mandatory compliance to regulations is a large part of Drinking Water Services’ mandate. Council is provided the opportunity to comment and submit enquiries related to these reports and staff has made presentations to the applicable standing committee (Environment Committee and previously Planning and Environment Committee). These presentations also allow for a direct dialogue between Council and staff.

Our review of the 2010 Operational Top Management Review report finds that Management has identified key performance indicators in the categories of customer services, water distribution, water production, and water quality. The report indicates that a total of 21 operational KPIs have been tracked over five years.

The highly regulated regime under which municipal drinking water is obtained from the source, treated and distributed has created a strong framework of measurement and continuous improvement through a Drinking Water Quality Management System (DWQMS) that is in place throughout Ontario municipalities. Measurement of and reporting on the system’s many aspects – the water itself, the infrastructure, and the human resources – is inherent to the DWQMS.

### **Cost-Benefit Awareness**

The comprehensive system of performance measures that exists for the drinking water system substantially reduces risk to the City. With the legislative and regulatory changes that have been enacted since the Walkerton tragedy – which places an emphasis on the process of Plan-Do-Check-Improve and has resulted in the City establishing an Operational Plan for the system – there is further confidence in the performance measurement and continuous improvement of Ottawa’s drinking water system.

In terms of the City’s strategic alignment of performance measures, there is some risk that the drinking water system is currently viewed strategically by the City as an aspect of the environment rather than an aspect of public health. This current environmental perspective differs from the Province’s and Management’s perspective, which sees the measurement and continuous improvement of the drinking water system as a core matter of public health.

## **Recommendation 16**

**That, in the development of the Balanced Scorecard, Water Supply and Distribution Management incorporate the key performance indicators to the National Water and Wastewater Benchmarking Initiative as well as performance measures that are strategically aligned to public health outcomes rather than a narrower set of environmental outcomes.**

### **Management Response**

Management agrees with the recommendation.

The Environmental Services department will review the National Water and Wastewater Benchmarking Initiative to determine the costs and benefits of using its water supply and distribution management related performance indicators. Those with a positive cost-benefit analysis will be incorporated into the development of the departmental Balanced Scorecard by the end of Q4 2012. In the development of the departmental Scorecard, the Environmental Services department will also consider performance measures that are aligned to public health outcomes. This will be completed by the end of Q4 2012.

### **4.3.6 Wastewater Collection and Treatment Service Performance Indicators**

Key performance indicators for Wastewater Collection and Treatment (which includes Storm Water Management) fall into the following categories:

1. Certificates of Approval issued by the Ministry of Environment for the system's facilities and the City's own best management practices. The Certificates of Approval identify a series of testing limits/objectives, which are regularly measured and reported on. This Certificate of Approval framework is in effect across the Province.
2. Annual OMBI reports.
3. Management has opted into the National Water and Wastewater Benchmarking Initiative (NWWBI) for Wastewater, indicating that the information shared among the Initiative's membership provides good value for their investment because the performance measures are more specific and applicable than OMBI's. Management further suggested that NWWBI is trying to influence OMBI to adopt some of the same performance measures.

The following table catalogues the key performance indicators (by source) for Wastewater Services, and provides our assessment of their suitability for the new Balanced Scorecard model. OMBI indicators are not included here as this is discussed in a separate section of this report.

Performance Indicator	Source	Suitability for Balanced Scorecard
<ol style="list-style-type: none"> <li>1) Wastewater certificate of approval parameters (final effluent cBOD5, final effluent total suspended solids, final effluent total phosphorous, final effluent E. coli, plant flow rate)</li> <li>2) Raw sewage by-pass, spills and digester gas venting events</li> <li>3) Public complaints</li> <li>4) Quality of dewatered sludge</li> <li>5) Biosolids metals content</li> <li>6) Primary and secondary treatment efficiency</li> <li>7) Maintenance effort in hours</li> <li>8) Spending on corrective work over \$10,000</li> <li>9) Spending on preventative maintenance &gt;\$1,500 capital expenditures</li> </ol>	<p>Robert O. Pickard Environmental Centre Annual Operations Report (2010)</p>	<p>Questionable: Monitoring mostly compliance is not effective for continuous improvement by Management but some measures could provide some limited information on the business process, customer, and financial perspectives.</p>
<ol style="list-style-type: none"> <li>1) Wastewater certificates of approval parameters (average flow; peak flow; suspended solids; total phosphorous; E. coli; etc.)</li> <li>2) Raw sewage bypass events</li> <li>3) Digester gas venting occurrences</li> <li>4) Odor and other complaints</li> <li>5) Operator training</li> <li>6) Biosolids metals concentration</li> <li>7) Permitted CSO class 1 spills</li> <li>8) Basement flooding mitigation measures implemented</li> <li>9) Stormwater facilities' certificates of approval parameters (sediments, etc.)</li> <li>10) Spills, service, complaints</li> </ol>	<p>Regulatory Compliance Report Wastewater and stormwater Systems - annual summary (2009)</p>	<p>Questionable: Monitoring mostly compliance is not effective for continuous improvement by Management of the systems but the measures for stormwater could provide some limited information on the customer and business process perspectives.</p>

Performance Indicator	Source	Suitability for Balanced Scorecard
1) Sewer rate for a residential connection using 250 m <sup>3</sup> /year 2) Number of blocked sewers that were repeat occurrences 3) Percent of manholes visually inspected 4) 5 year running average capital reinvestment value 5) Number of field FTEs per 100 km of length 6) O&M cost as percent of system replacement value 7) Volume of combined sewer overflows as percent of total wastewater volume 8) Percent of calls for service resolved within the defined level of service	National Water and Wastewater Benchmarking Initiative	Suitable: Many of the measures provide useful information to Management across three Balanced Scorecard perspectives of business process, customer, and financial, but learning/growth is not addressed.

The following outlines our assessment of Wastewater Collection and Treatment KPIs against the audit objectives.

### Planning/Target Setting

Different indicators are used to help plan strategic and operational projects for wastewater and stormwater. In addition to the customary annual reporting, planning/target setting is undertaken on a continuous basis due to rapidly changing priorities. Management maintains a long-list of strategic and operational projects, weighs the characteristics and merits of the projects through a process of analysis, and identifies priority projects. Management notes that the projects addressing regulatory requirements are always considered a priority.

An ISO 14001 management system is on the horizon to provide qualitative performance measures, but that this remains a work in process at the time of the audit.

For long-term planning, the City has an Infrastructure Master Plan, which was adopted by Council in June 2009. The Infrastructure Master Plan considers serving the drinking water and wastewater needs of a projected population of 1.14 million people by the year 2031. We note that the Infrastructure Master Plan makes reference to the municipality's obligations under legislation (such as the Ontario Water Resources Act which addresses stormwater management).

In terms of broader strategic alignment for planning/target setting, Management acknowledges that wastewater collection and treatment (and stormwater management) are a matter of environmental health. The immediate recipient of the system's effluents is the environment and if the system is not managed properly then it becomes an environmental issue. As a result, Management is supportive of the strategic alignment of Wastewater Collection and Distribution performance measures to the environment theme of the City's overall strategic framework. However, it should also be noted that if the system is not managed properly, it may become a public health issue as well. For example, there is a potential impact on public health caused by sewer back-ups, which can lead to household contamination.

### **Budget Process Support**

We note through our review of the 2010 Robert O. Pickard Environmental Centre Annual Operations Report that maintenance efforts in man-hours, corrective work over \$10,000, preventative maintenance over \$1,500, miscellaneous maintenance over \$10,000, and capital expenditures are well-documented. Management is working on creating a stronger relationship between past performance and future budgeting process support, while it simultaneously addresses certain priority environmental regulatory requirements. From the perspective of the collection system, Management in Infrastructure Services indicate that developing an asset management system that would link performance to budgeting is a work-in-progress.

### **Results-Based Reporting**

The provincially mandated reporting requires Management to produce annual detailed reports. Reporting is produced on the wastewater facilities, stormwater systems including combined sewer overflows, and biosolids. All of these reports contain a variety of indicators.

Our review of the reporting that describes performance relative to the limits established by the Certificate of Approval for the Robert O. Pickard Environmental Centre finds nine key performance indicators on effluent. Other KPIs can be determined for the City's other facilities. However, since the monitoring is focused on environmental compliance, these key performance indicators do not provide a balanced or strategic perspective (i.e., financial, human resources) on overall system performance.

### **Cost-Benefit Awareness**

There is some risk to the wastewater and stormwater systems if the emphasis remains solely on environmental compliance, and additional perspectives of financial and human resources/innovation are not incorporated in the performance measurement regime. The effort that Management has recently invested in a process to prioritize capital and operational projects suggests that a culture of continuous

improvement was previously lacking (as was indicated in the 2008 Audit of the 2006 Sewage Spill), but that it is now in the process of being established. Environmental compliance cannot be achieved solely by response-driven behaviour or temporary solutions; rather, it is achieved through proactive action, delivered by adequate personnel, and funded appropriately. This balanced perspective needs to be guided by a balanced performance measurement toolkit.

### **Recommendation 17**

**That, in the development of the Balanced Scorecard, Wastewater Collection and Treatment Management incorporate key performance indicators of the National Water and Wastewater Benchmarking Initiative.**

#### **Management Response**

Management agrees with the recommendation.

The Environmental Services department will review the National Water and Wastewater Benchmarking Initiative to determine the costs and benefits of using its wastewater collection and treatment management related performance indicators. Those with a positive cost-benefit analysis will be incorporated into the development of the departmental Balanced Scorecard by the end of Q4 2012.

### **4.3.7 Information Technology (IT) Support Service Performance Indicators**

Key performance indicators for IT Services fall into the following categories:

1. Annual OMBI reporting.
2. The GARTNER IT Benchmarking. IT staff have invested their annual continuous improvement effort/resources on the Gartner group benchmarking and “Total Cost of Ownership” program. The City provides input data and receives customized benchmarking reports for specific service delivery activities, as well as more global total cost of operations reports.

The Gartner reports position Ottawa against a variety of peer comparators (government and/or other) based on well-developed criteria. Performance data and peer rankings generate specific operational improvement recommendations and strategies for improvement. The Gartner model is recognized industry-wide as a superior benchmarking toolkit for IT business units.

The Gartner benchmarking methodology is both sophisticated and instructive:

- Independent peer groups are selected based on criteria like industry, geography. Gartner has 8,000 plus potential peers that are scanned to find the best comparators to use;
- Spending and support profiles for each peer are used to compare what they would spend to support Ottawa’s work load for the activity in question;

- Difference in spending and metrics derived from the analysis provide operational insights to manage costs and reduce negative performance risk; and,
- Peer sets are organized as comparative delivery agents to Ottawa or outsourced models for consideration.

The input data for Gartner is “Total Cost of Ownership” data, which is also used by Management for internal organizational reviews, service level restructuring, and budget support/business reviews. This data is also used by IT to explain cost allocations and internal budget charges to direct user groups within the City.

An assessment of IT key performance indicators appears below. It is noteworthy that City support functions do not appear to report performance to Council – a significant shortcoming of the current accountability framework. Our assessment of their suitability for the new Balanced Scorecard model is also included. OMBI indicators are not included here as this is discussed in a separate section of this report.

Current Performance Indicator	Source	Suitability for Balanced Scorecard
Total cost per user (with activity cost breakdowns)	Gartner total cost of service	Suitable – Provides detailed and granular unit cost data in an “Ottawa versus Ottawa Over Time” format. Analysis also addresses peer comparison of cost performance – using a percentile ranking.
Total cost per inbound handled contact	Gartner detailed activity analysis	Suitable – Each detailed analysis yields performance indicators that can be used on an ongoing basis – expanding eventually to provide a comprehensive set of drill-down unit cost indicators for all key activities (financial quadrant).
Inbound handled contacts per FTE	Gartner detailed activity analysis	Suitable – Measures business process productivity for a given level of resources (business process quadrant of bsc)
% calls resolved with single point of contact	Gartner detailed activity analysis	Suitable – Measures customer satisfaction results and business process efficiency (customer or business process quadrants of bsc).
Mean time to respond/restore	Gartner detailed activity analysis	Suitable – Measures customer satisfaction results and business process efficiency (customer or business process quadrants of bsc).

The indicators provided in this table are examples of Help Desk measures from Gartner's detailed analysis. When the Help Desk performance is benchmarked with Gartner these measures could be used. If a different business line, such as data centres, is benchmarked then there would be different measures.

The following outlines our assessment of IT KPIs against the audit objectives.

### **Planning/Target Setting**

The City imposes a series of financial controls throughout the annual budget process. However, these budget targets are not linked to explicit system performance targets derived from key performance indicator data trends. Explicit system-wide performance targets need to be developed as part of a results based model of management.

### **Results-Based Reporting**

Current City accountability reporting for internal support functions is inadequate in our view. The Quarterly Council Report Indicators is silent on the performance of internal support functions like IT services. IT Services does utilize Gartner performance data and performance stories to enter into dialogue with internal customers regarding unit cost and quality of service. IT Services also use Gartner cost of service data to explain performance and resource issues to Committee or budget officials.

### **Budget Decision Support**

As has been stated for the other areas reviewed in the audit, performance measurement data does not play a significant role in supporting or informing Management or Council's budget deliberations. This is particularly evident for support functions give the lack of specific indicators in the Quarterly Report to Council for these areas.

### **Cost-Benefit Awareness**

Staff have made an informed cost/benefit decision to commit to the Gartner IT benchmarking methodology. The Gartner advantage is derived from the breadth of the peer group and the analytical power of the expert advisory resources at Gartner. Staff has also targeted and rationed the services purchased from Gartner in order to ensure a favourable cost/benefit result.

In our view, IT staff are vigilant using proven benchmarking services and products to gain performance insights, refine service delivery models, and right-size staffing resources. For instance, Gartner analysis had documented lower service costs for selected IT activities investigated and offered concrete tactical and business process advice on "next steps" to secure operational improvement.

In making the following recommendation, we are mindful of the potential level of effort required to implement all possible performance measures. As such, the use of

the word “selected” is intended to indicate that it is left to Management to determine which specific performance measures would be most cost-effective to implement.

### **Recommendation 18**

**That, in the development of the Balanced Scorecard, IT Management incorporate the selected functional areas present in the Gartner benchmarking and performance measurement process.**

#### **Management Response**

Management agrees with the recommendation.

Information Technology Services will incorporate select Gartner functional areas into the departmental Balanced Scorecard by the end of Q4 2012.

### **Recommendation 19**

**That, in all cases where it is to be implemented, the Balanced Scorecards include indicators by performance quadrant and quantitative performance targets (annual and beyond) to inform budget and operational decision-making.**

#### **Management Response**

Management agrees with the recommendation.

The City is in the process of developing corporate and departmental Balanced Scorecards within the Corporate Planning Framework to report on its strategic priorities. Corporate Business Services will ensure that by the end of Q2 2012 the corporate Scorecard will include indicators by performance quadrant and quantitative performance targets. All subsequent departmental Scorecards will follow the same approach.

***4.4 Audit Objective 6: The City’s involvement in OMBI features relevant and appropriate key performance indicators, clear and compelling performance data stories, and a return on investment characterized by the adoption of evidence-supported best practices in service delivery supplied by OMBI peers.***

#### **4.4.1 OMBI Background**

The Ontario Municipal Benchmarking Initiative is now more than ten years old. The OMBI benchmarking model has been designed according to the following methodology:

1. Identify key performance indicators of unit costs and effectiveness to be used as a screen to identify high performing municipalities for the service in question;
2. Identify high performing municipalities using benchmarking data. This identification process requires OMBI to consider factors that could explain data

trends. Explanatory factors could include demographics, urban form, service levels, and finally management performance;

3. Investigate the specific service delivery practices of the high performing municipalities, and determine desirable service delivery practices that can be emulated by other OMBI participants; and,
4. Each OMBI participant drives their own specific emulation strategy when adopting desirable service delivery practices.

In addition to interviews in the areas reviewed in the audit, we also examined OMBI reports, data trends, on-line reports and organization charts to determine the relevance of OMBI. Staff from other OMBI municipalities was also contacted to confidentially test observations and staff perspectives.

OMBI's annual work cycle is driven through an organization model featuring Expert Panels of staff for each benchmarked service. The Expert Panel is charged with data collection definitions and quality control. The Expert Panel is also responsible for considering data trend explanations, as well as the identification and emulation of peer best practices. Ottawa is represented on the OMBI Expert Panels for Water, Wastewater, Solid Waste Management, Information Technology, Social Housing and Recreation Services. OMBI data from Ottawa and other participating municipalities is submitted to a central data warehouse (administered by OMBI staff in Niagara region) where standardized reports are prepared.

The following presents an assessment of the OMBI initiative for each audited service area our overall evaluation OMBI's return on investment for the City.

### **Social Housing**

OMBI includes the following indicators for Social Housing:

- Number of social housing units/1,000 households;
- Percentage of the social housing waiting list placed annually;
- Administrative and subsidy operating cost per housing unit; and,
- Total operating cost per unit.

Management and City analysts did not see OMBI as a particularly powerful value-added initiative. Management's past participation in the Expert Review Panel has helped them understand that the information reported to OMBI is not consistent across peers; that there are concerns about the relevance of certain OMBI indicators; and the documentation and emulation of peer best practices is not occurring as the OMBI model envisions. Instead the focus is on data comparability issues and explanatory factors.

In particular, City staff were able to highlight technical problems associated with numerator costs in the "cost per housing unit" performance indicators. The numerator costs for OMBI participants are automatically pulled from the municipal

Financial Information Return (FIR) report submitted annually to the province. The FIR “numerator data” is supplied/calculated by the central OMBI data warehouse. It is well known across the municipal finance community that municipal accounting practices underlying FIR reporting are varied. In the case of Ottawa social housing, the FIR cost accounting and organization structures - involving the service manager (the regulator of the system) and the municipal service provider (a distinct business unit delivering service like any other community non-profit providers) - create artificially large “cost pools” that are not comparable with other OMBI peer jurisdictions.

Staff also reported that the Expert Panel process is still focussed (after 11 years of OMBI effort) on data comparability issues and explanatory factors as opposed to “best practice” identification and emulation. Expert Panel meetings are typically not attended by senior municipal social housing staff; they have become progressively more analyst-driven and data-driven.

### **Water and Wastewater**

OMBI measures related to Water Treatment include:

- Number of household days with mandatory water restrictions;
- Number of household days with boil water advisories;
- Average age of water pipe (years);
- Km of distribution pipe;
- Megalitres of treated water per 100,000 population;
- Percentage of water utilized for industrial, commercial, and institutional uses;
- Water use (megalitres distributed) per household; and,
- Percentage of total households serviced by municipal water.

OMBI measures related to Wastewater include:

- Average age of wastewater pipe;
- Percentage of wastewater estimated to have bypassed treatment;
- Kilometers of wastewater pipe;
- Megalitres of treated wastewater per 100,000 population;
- Annual number of wastewater main backups per 100 km of main;
- Total number of secondary wastewater treatment plants, and,
- Number of wastewater pumping stations.

Management in Water and Wastewater business units raised concerns about the relevance of the OMBI measurements that municipal systems are too varied to be comparable; and that OMBI’s information is not reported in a way that allows for useful comparability even between similar municipalities.

For example, Management noted that the “average age of wastewater pipe (years)” is not useful information because it does not differentiate between high growth (younger infrastructure) and slow growth (older infrastructure) municipalities, municipalities with legacy systems (which are older), or asset management efforts (which extend the life of infrastructure). Furthermore, it is well understood across OMBI participants that different results can often be explained by differences in the geology, geography, and demography of communities.

It should be recognized that because of the diversity in participants and the lack of depth of the measures, OMBI does not lead to valuable information with greater investment of time and financial resources. Wastewater Services Management believes that the NWWBI is more appropriate and leads to better, more specific performance indicators. However, the shortcomings of OMBI did not lead Management to opt into NWWBI.

Wastewater Management indicated that it sees the NWWBI as a more rigorous process than OMBI. From the perspective of sustainable infrastructure asset management, the value of the Canadian Infrastructure Report Card, which is championed by the Federation of Canadian Municipalities, was recognized.

Management in Water and Wastewater did not identify any specific “best practices” emerging from the data collection and dissemination role of OMBI. The secondary purpose of OMBI which is to informally convene system operators and managers in forums to communicate and discuss best practices/approaches is useful, but OMBI does not succeed in its primary purpose of disseminating comparative information on business processes/practices to promote continuous improvement.

Management in Water and Wastewater have indicated that the highly regulated systems that they operate require extensive quarterly and annual reporting on operational performance measures. The information reported to OMBI is not the same as the information required by regulatory reporting, and so there is a specific extra effort dedicated to OMBI reporting. Staff effort must be expended on assembling the OMBI information before it can be usefully interpreted. In the draft Strategic Branch Review for the Water and Wastewater Services Branch, it was noted that OMBI “measures should be considered as a group, not in isolation”. A review of these grouped OMBI results illustrate that staff have to compare Ottawa with London and Peel in order to understand water use, for example. This cost of staff effort needed before OMBI results can be usefully interpreted is not typically considered in the staff’s cost-benefit analysis, but it is a relevant cost/burden consideration.

We note that Management has expressed an inherent preference for the NWWBI, and has suggested that the benefit of participation in OMBI does not outweigh the cost of participation.

## **Solid Waste Management**

OMBI includes the following indicators for Solid Waste Management:

- Various per household tonnage amounts for collection or diversion (residential - all materials, residential - solid waste);
- Percentage of residential solid waste stream diverted from landfill (various waste stream sub-categories and total stream);
- Operating cost per tonne disposed;
- Operating cost per tonne diverted; and,
- Ratio of quarterly diversion tonnes/landfilled tonnes.

City staff note that the Waste Diversion Ontario (WDO) municipal funding process utilizes unit cost and diversion benchmarking data to support its funding allocation decisions. These WDO funding decisions are supported by a “best practices” service delivery “simulation model” that examines the efficiency of various collection/processing/disposal operational scenarios. The various “best practice” scenarios are populated with municipally reported data and are held in confidence by WDO for market competitiveness reasons.

Ottawa is also participating in the National Solid Waste Management Benchmarking Initiative. This initiative achieves greater depth and potential insights into operationally relevant performance data compared to OMBI. City staff has identified this initiative as a higher priority than OMBI, given the finite resources available to achieve continuous improvement via benchmarking. City staff has also identified specific “Ottawa versus Ottawa Over Time” performance data sources, trends and continuous improvement processes that meet the original mandate of OMBI. City staff further note that the WDO process has achieved best practice insights and results in a much shorter development curve than OMBI. Finally, staff is not able to supply any concrete examples of OMBI - derived best practices in service delivery. Staff are puzzled that their waste collection managed competition model has not been identified by OMBI as an approach for other jurisdictions to consider.

## **Information Technology (IT)**

OMBI includes the following IT indicators:

- Various output measures (supported devices, accounts, population);
- Unit costs per capita;
- Unit costs per staff;
- Unit cost per staff with account;
- Cost ratio IT/Total municipal operating and capital;
- Staff ratio IT/Total staff FTE; and,
- Staff ratio IT/Total staff with accounts.

As stated earlier, City staff has focussed their continuous improvement efforts on the Gartner group benchmarking and “Total Cost of Ownership” program. As such, City staff has concluded that OMBI data is not of sufficient depth or quality to replace the Gartner model and would support redeployment of OMBI data population effort or budgeted costs to Gartner or other similar IT industry specific benchmarking exercises.

### **Fire and Emergency Services**

The OMBI Expert Panel for Fire Services populates 79 total performance indicator data points and reports 53 of them publicly. The CAO summary report for OMBI addresses 11 of these fire data points. Fire staff report that the Expert Panel meets twice a year – often by conference call. There are only eight peer jurisdictions in the Fire Expert Panel. Fire has created OMBI data “green” and “red” performance tolerances in its reporting in order to identify areas of service delivery improvement and accomplishment. OMBI measures report on a series of service level and community impact indicators. These indicators include injuries and fatalities per 1,000 population. They also include structure fires with dollars\$ loss per 1,000 households – measure of demand.

Staffed vehicle hours per capita are another interesting measure of service levels, but not management performance. They may however provide value when used as reference data when comparing the cost of service and response times of OMBI peers. The indicators Cost per In-service Vehicle Hour and 90<sup>th</sup> Percentile Notification Times for Fire Calls are useful and relevant performance indicators. However, it is not clear why 90<sup>th</sup> percentile response times are being limited to fires – when in fact the majority of calls are medical or rescue or false alarms. The greatest limitation on OMBI Fire Expert Panel is the extremely low number of participants (eight) and the difficulty in finding “like” peers for comparison and innovation. However, no systemic efforts are now in place to drive continuous improvement using OMBI data. Fire Management looks at the OMBI data reactively rather than proactively.

The CFAI self-accreditation process will drive the performance measurement agenda in the Fire Services Branch - given the requirement for a sophisticated portfolio of performance indicators (integrated in a continuous improvement process) in order to achieve accreditation.

### **Recreation and Sports Field Scheduling**

The OMBI indicators include:

- Number of participant visits per capita – directly provided registered programs;
- Annual number of unique users for directly provided registered programs as a percentage of population;

- Number of operational indoor pool locations with municipal influence per 100,000 population;
- Number of operational outdoor pool locations with municipal influence per 100,000 population; and,
- Utilization rate for directly provided registered programs.

The OMBI data provides a series of service level and community impact indicators. While indicative of the amount of service, these indicators provide little or no insight on management performance, cost efficiency or best practices. A final high-level global measure of program utilization is provided. The program utilization indicator is so high level that it provides no insight into performance variation with peers or in an Ottawa versus Ottawa perspective. No utilization data for facility rentals is provided in OMBI, effectively ignoring arenas and sports fields.

### **Cost-Benefit Assessment of OMBI**

The varying quality of accounting assumptions and input data to OMBI by different peer municipalities creates a potential for OMBI data to be unreliable. As well, the OMBI process across Expert Panels seems to be focussed on attributing all performance data variances to environmental factors. There appears to be no sustained momentum behind Best Practice identification and emulation, while there is a great deal of effort associated with non-performance based explanations for the positioning of Ottawa versus peers. Confidential discussions with staff from other OMBI jurisdictions confirm these perspectives.

The measures in OMBI are not built to establish strategic direction as compared to the strategic foundation of the Balanced Scorecard model currently informing City performance measurement planning. There is often no clear strategic rationale that describes why OMBI's measures have been selected. For instance, is "Percentage of Water Utilized for industrial, commercial and institutional uses" or "Social Housing Waiting List Placement Rates" relevant to long-term continuous improvement?

Staff resources are used to contribute to OMBI across all service areas preventing potential work capacity from being available for other more highly regarded benchmarking exercises. Staff resources are also required to analyze and distil OMBI results before they can be usefully interpreted for comparison purposes.

### **Recommendation 20**

**That, as the Balanced Scorecard model is implemented, the City monitor the efficacy and cost-benefit of continued participation in OMBI to determine if withdrawal from the initiative is warranted.**

**Management Response**

Management agrees with the recommendation.

The City will assess its involvement in the OMBI program in the context of the Balanced Scorecard implementation to determine the efficacy and cost-benefit of our continued participation. The determination as to whether withdrawal is warranted will be completed by the end of Q4 2013.

**Recommendation 21**

**That the City monitor the cost-benefit of the Balanced Scorecard model and any other performance measurement approaches in use to ensure associated resources remain necessary.**

**Management Response**

Management agrees with the recommendation.

Management agrees to assess the cost-benefit of future performance measurement approaches. However, management will not conduct a cost-benefit assessment on the current Balanced Scorecard model being implemented. The City has already made the decision through Council to proceed with the Balanced Scorecard model so it would not be practical or cost efficient to conduct a cost-benefit analysis. Going forward, Corporate Business Services will conduct a cost-benefit analysis on any future decision with respect to new performance measurement approaches.

**5 POTENTIAL SAVINGS**

Over the past decade, the City has devoted significant resources, particularly human resources, to various performance measurement initiatives. Unfortunately, there is little evidence to suggest that these measures have been used to inform budget and operational decision-making. As such, the cost-benefit of these activities has been questionable. It will be important for Management to monitor the usefulness of the new Balanced Scorecard program to prevent this from occurring again. In our view, if these activities are not generating the anticipated benefits there is the potential for savings by discontinuing them.

**6 CONCLUSION**

The risks associated with the technical accuracy when calculating key performance indicators stem largely from the high level of data re-entry and manipulation currently required in the areas audited. Enhanced automation and effective implementation of the new Business Intelligence tool are needed to mitigate these risks.

Council and Management are evolving towards a strategic planning/management model that aligns Council priorities, 84 strategic initiatives, 18 departmental strategic plans to link the term of Council strategic priorities with operational activities, and a new corporate Balanced Scorecard.

This model is appropriate and well designed from a traditional organization structure based management perspective. However, an expanded rollout for the corporate Balanced Scorecard initiative is required based on the 25-30 core services delivered by the City and consumed by taxpayers. These core service Scorecards will provide a critical value-for-money accountability link to the City budget process.

The audit of key performance indicators across a representative sample of City services demonstrates an opportunity for improvement in utilizing performance indicators for management purposes extending beyond traditional reporting. Performance indicators derived operational target-setting is limited across the sampled City business units. The existing performance indicators are diverse in terms of design and relevance, with many being unsuitable for inclusion in new Balanced Scorecards. If properly implemented, the new core service Scorecards recommended should address this shortcoming.

Finally, there is a compelling case for redeploying City staff effort and resources associated with OMBI towards more promising benchmarking and performance measurement projects. OMBI is not delivering the benefits and opportunities referenced in its original mandate/mission.

## **7 ACKNOWLEDGEMENT**

We wish to express our appreciation for the cooperation and assistance afforded the audit team by Management and City staff/analysts.