



OFFICE OF THE
City Auditor

Performance Measures Validation

September 24, 2015



The Office of the City Auditor conducted
this project in accordance with the
*International Standards for the
Professional Practice of Internal Auditing*

Performance Measures Validation Table of Contents

1. Introduction	1
2. Background.....	1
3. Validation Sample, Criteria, Process and Scope.....	1
3.1. Validation Sample	1
3.2. Validation Criteria.....	2
3.3. Validation Process and Scope	3
4. Observations.....	3
4.1. Reliability.....	4
4.2. Understandability	5
4.3. Comparability	6
5. Conclusion and Recommendation	7

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Performance Measures Validation

1. Introduction

The Office of the City Auditor included the proactive project, Performance Measures Validation, in its *2015 Annual Work Plan*. We committed to validating the results of a sample of the City's publicly-reported performance measures.

2. Background

The City publicly reports performance measure results in a variety of different formats, including business plans, budgets, on the Citizen Dashboard, reports to Council, and in other formal reports. As well, the measures occur at different levels throughout the organization (the corporate level, the department and branch level, and the operational level).

We chose to validate six corporate measures from *The Way Ahead Progress Report 2014* (the Progress Report). The Administration presented the Progress Report to Council, for the first time, in September 2015.

The Progress Report contains 26 corporate outcome measures. City Council approved these measures and targets in November 2014. The measures demonstrate progress towards achieving the corporate outcomes included in the City's strategic plan *The Way Ahead*.

The Progress Report includes targets and current and historical results for each of the 26 corporate outcome measures. It also provides supporting information about each measure, and the City's progress in achieving the measure's target.

The Corporate Strategic Services Section of the Corporate Strategic Planning Branch in the Financial Services and Utilities Department is responsible for the preparation of the Progress Report. However, they are not responsible for compiling the results of each performance measure included in the report. This is the responsibility of each Performance Measure Owner, working for his or her respective City Department.

3. Validation Sample, Criteria, Process and Scope

3.1. Validation Sample

We judgementally selected a sample of six corporate outcome measures from the Progress Report to validate. We ensured our sample included at least one measure from each of the four Departments represented in the Progress Report and from each

type of data source (internal, external, and survey). Table 1 shows the measures we chose to validate as well as the Department and Branch responsible for the data.

Table 1 – Sample Measures

Measure Number	Name	Lead Department	Lead Branch
2.1	Infrastructure Density	Financial Services and Utilities	Corporate Strategic Planning
3.1	Transit Ridership	Transportation Services	Transportation Planning
5.1	Reported Volunteer Rate	Community Services	Community Strategies and Development
8.1	City Operations Greenhouse Gas Emissions	Sustainable Development	Urban Planning and Environment
10.1	City of Edmonton Credit Rating	Financial Services and Utilities	Financial Services
12.2	Edmonton Region Non-Residential Permit Value	Sustainable Development	Real Estate Housing and Economic Sustainability

3.2. Validation Criteria

The criteria we used to validate each of the measures in our sample were as follows:

1. Criteria Relating to Reliability of Performance Measures

- a. Is the measure based on data that can be replicated by an independent observer? Is it reasonably complete and accurate? Is it free from significant omissions?
- b. Is the information obtained from independent sources credible, reliable, and presented consistently with the original source data?
- c. Does the measure result being presented fairly represent the underlying data?
- d. Is there a clear linkage between the data used to calculate the measure and the performance that it claims to represent?

2. Criteria Relating to Understandability of Performance Measures

- a. Is supporting information precise and clearly stated in plain, non-technical language? Does it focus on critical facts and information that enables users to obtain reasonable insights and draw reasonable conclusions?
- b. Does the presentation method (graph, table, etc.) ensure a reasonably informed user would correctly interpret the information?

3. Criteria Relating to Comparability of Performance Measures

- a. At a minimum, are prior period, current results, and current targets presented?

- b. Has time series information (trends) or other appropriate comparators been provided to allow users to assess performance in relation to targets?
- c. Does the comparative data give the user the context as to whether the performance is improving, stable, or deteriorating?
- d. Is the data used to produce the measure prepared in a manner consistent with previous reporting periods?

3.3. Validation Process and Scope

This was a proactive project. We worked collaboratively with Corporate Strategic Planning staff, as well as with the Performance Measure Owners, in the assessment of each measure at the draft report stage.

The scope of our work covered all data and supporting information provided in the Progress Report that related to the sample measures. This included all comparative information in the graphs and additional measures and figures contained within the supporting information. Our review did not assess the relevance of the measures to the City's goals or the users of the Progress Report.

We performed our original assessment on the information contained in the first draft of the Progress Report. Corporate Strategic Planning staff provided this to us very early in the process, prior to conducting any of their own reviews. Based on our assessment we suggested changes to the Progress Report that would ensure the measure and its supporting information meet our criteria.

Performance Measure Owners and Corporate Strategic Planning staff made all of the changes we suggested.

4. Observations

Our observations are from our review of the first draft of the Progress Report (the original draft). The observations are presented based on the three criteria we assessed for each measure:

- Reliability
- Understandability
- Comparability

We did not include our specific findings for each measure in this report. As indicated, this was a proactive project done with the cooperation of Corporate Strategic Planning staff and the Performance Measure Owners on a very early draft of the Progress Report. It was also the first time we applied this criteria to measures included in a corporate performance measures report, and all of our suggestions were incorporated into the final Progress Report. Our intent was to help Corporate Strategic Planning staff understand the rigour we use to assess each measure so they could learn from this and apply it to the other measures.

4.1. Reliability

When assessing the reliability of the measures we performed the following procedures on the current and prior year results included in the original draft of the Progress Report:

- Recalculated the results using source documents and compared them to the reported results – this involved ensuring that all relevant data was included, and that information used was complete and accurate.
- Ensured that there was a clear link between the data used to calculate the results and the performance that it claimed to represent.
- For results obtained from independent sources (e.g., Statistics Canada, Consultant, etc.), we ensured the information was presented consistently with the original source data.

We suggested changes to the results presented in the original draft of the Progress Report for five of the six measures we validated.

For three of the measures the suggested changes were minor and would not have significantly affected how a reader would interpret the data. However, for two of the measures, if the Performance Measure Owner had not agreed to make the changes, the reader could have misinterpreted the results. For example: prior to our validation one measure showed a consistent year-over-year increase, yet after we recalculated the measure we found one year where the measure results dropped below the previous year.

The reasons why we suggested changes to the results included in the original draft include:

1. The Performance Measure Owners did not review supporting documentation for figures used in the calculation of a measure.

For three of the measures, the Performance Measure Owners receive data from other areas of the City that they use in the calculation of their measure. We found that Performance Measure Owners are not always verifying the accuracy of this data by obtaining the supporting documentation. This led to the use of inaccurate data in two of the calculations. We also found that without reviewing the supporting documentation the Performance Measure Owners were unaware of any methodology changes in how the other areas are compiling their data. This also led to changes in the originally reported figures for two of the measures.

2. Support was unavailable for figures used in the calculation of a measure.

We were unable to obtain the support for figures used in the calculation of a measure. We were therefore unable to verify the accuracy of the result. When we asked the area to rerun the reports from the system to provide the required support it led to a change in the reported result.

3. The original calculation did not include all available information.

During our review of a measure we determined that not all relevant data was included in the calculation. Once the information was included in the calculation it led to changes in the reported results.

4. Figures reported in the original draft did not agree with the original source data obtained from an independent third party.

Three of the measures are derived from third party sources (consultants, Statistics Canada, etc.). In these cases we compare the reported result to the original source provided by the third party. We found that the reported results did not all agree with the source documents provided by the third party for two of the measures.

All of the changes we suggested, major and minor, were made by the Performance Measure Owners and Corporate Strategic Planning staff. We can conclude that the results presented in the final Progress Report for the six measures we validated are reliable.

4.2. Understandability

When assessing the understandability of each measure we performed the following procedures on the supporting information included in the original draft of the Progress Report:

- Ensured it was fully supported and factual.
- Ensured it was precise and clearly stated in plain, non-technical language, and not open to interpretation.
- Determined if the supporting information included the following content:
 - What the measure is intended to show and why it is important.
 - Specific sources of information and how data are collected.
 - How the measure is calculated.
 - Identification of any data limitation.
 - A conclusion.
- Determined if graphs provided could be reasonably interpreted by the reader.

We suggested changes to the supporting information presented in the original draft of the Progress Report in five of the six measures we validated.

The reasons for the required changes include:

- The data sources included with the graphs in three of the measures were incomplete;
- Methodology statements in three of the measures were incorrect, unclear, or open to interpretation;
- Information in the supporting documentation was incorrect in four of the measures;
- Descriptions of raw data used to calculate the measure were unclear in two of the measures; and
- The supporting information contained technical language in one of the measures.

Corporate Strategic Planning staff also performed reviews and made changes to improve the understandability of the supporting information provided for all of the measures in the Progress Report. As well, they made changes to the other measures based on our suggestions, such as ensuring that the data source was complete and that the supporting information did not contain technical language.

The Performance Measure Owner and Corporate Strategic Planning staff made all of the changes we suggested. We can conclude that the results presented in the final Progress Report for the six measures we validated are understandable.

4.3. Comparability

When assessing the comparability of the measures, we performed the following procedures on the results presented in the original draft of the Progress Report:

- Ensured that comparative data is provided (e.g., targets and prior year results).
- Ensured that the methodology used to calculate comparative and current period results is consistent.
- Determined if the data used to calculate current and comparative results is consistent.

We found issues with the comparable data provided in three of the six measures we validated. The issues included:

1. A target was not comparable to the current period result.

The target for a measure was not based on the same methodology as the current period results. The target was therefore not comparable to the current period result. Without revision it would have given the reader the wrong impression as to the City's progress towards achieving the target.

2. Prior period results were not comparable to the current year result.

For one measure the prior period results included in the chart were not based on the same methodology as the current period result. They were therefore not comparable with the current period result. If they had not been removed from the chart it would have given the reader the wrong impression of the year-over-year changes in the measure results.

3. The methodology to produce the data used in the measure calculation changed.

In two of the measures we validated we found that the methodology for compiling the supporting information changed. This resulted in prior year figures having to be changed to reflect the new methodology and ensure the comparability of the year-over-year results. These changes did not have a significant impact on the actual results for each year or the comparability of the target.

The Performance Measure Owner and Corporate Strategic Planning staff made all of the changes we suggested. We can conclude that the results presented in the final Progress Report for the six measures we validated are comparable.

5. Conclusion and Recommendation

Overall Corporate Strategic Planning made all of the changes we suggested therefore we can conclude that in the Final Progress Report all of the six measures we validated are reliable, understandable, and comparable.

However, based on the changes we suggested to the sample measures, there is a risk that some of the other measures included in the Progress Report may not meet our criteria.

A potential reason for the issues we found regarding the reliability, understandability, and comparability of the measures is due to the inconsistent approach and lack of defined roles and responsibilities of Performance Measures Owners when compiling the results of their measures.

The Performance Measures Owners do not have a procedure manual to follow when they are compiling the results for their measures and drafting the supporting information. A procedure manual would help ensure that all performance measure information is reliable, understandable, and comparable by assisting Performance Measure Owners to understand their role and responsibilities, as well as consistently compiling the performance measure results. A procedure manual should include, among other things, instructions for:

- Maintaining supporting documents;
- Understanding raw data methodology (and any changes to it);
- Requiring due diligence work to validate the reliability of supporting documents; and
- Ensuring comparability with previous years (e.g., how to deal with methodology changes).

Recommendation 1 – Procedure Manual for Performance Measure Owners

We recommend that the Corporate Strategic Planning Branch Manager ensures that Corporate Strategic Services staff develop a procedure manual for owners of performance measures included in future versions of *The Way Ahead Progress Report* or other Corporate publicly reported performance measure reports.

Management Response**Accepted**

Action plan: Corporate Strategic Services will develop a procedure manual for owners of performance measures. The procedure manual will be used in the preparation of future versions of *The Way Ahead Progress Report* or other Corporate publicly reported performance measure reports. The procedure manual will include, at a minimum, instructions related to supporting documents, raw data methodology, due diligence in validation reliability of supporting documents, and ensuring comparability with previous years.

Planned Implementation Date: The procedure manual will be completed by May 30, 2016 and will be used in the preparation of *The Way Ahead Progress Report 2015*, and/or other Corporate publicly reported performance measure reports developed after May 30, 2015.

Responsible Party: Branch Manager of Corporate Strategic Planning, Financial Services and Utilities Department