Office of the Auditor General: Follow-up to the 2016 Audit of the ServiceOttawa Program, Tabled at Audit Committee – June 14, 2018

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Executive summary

The Follow-up to the 2016 Audit of the ServiceOttawa Program was included in the Auditor General's 2017 Audit Work Plan.

The ServiceOttawa Program was a City initiative undertaken between 2009 and 2014 through which the City invested $72.9 million through nine initiatives. The initiatives were intended to result in service improvements and efficiencies across the City, including $39 million in annual savings by 2014. The objective of the Audit of the ServiceOttawa Program was to determine whether the City received value for money from the ServiceOttawa Program and whether the outcomes of the ServiceOttawa Program met the stated expectations of cost savings, return on investment and service delivery enhancements.

The original audit identified areas of improvement that were categorized into three overarching themes:

1. **Unclear definitions and methodology:** The City did not clearly agree on definitions and methodology at the outset of the ServiceOttawa Program, including what constituted cost savings. The lack of clear definitions and methodology made it difficult to assess whether the ServiceOttawa Program achieved value for money. Specific findings included:

    1.1. The City stated that cost savings were achieved via reductions in departmental budgets. However, departments were unable to demonstrate how the reductions in budgets were driven by and/or linked to investments made through the ServiceOttawa Program.

    1.2. It is unclear whether cost savings linked to the reduction of Full Time Equivalent (FTE) employees, including cost savings related the elimination of unoccupied positions, were achieved as stated, and whether expenses related to the elimination of FTEs were tracked (e.g. severance costs).

    1.3. There was no evidence that key City stakeholders outside of the ServiceOttawa Steering Committee were engaged in the due diligence.

    1.4. The Business Cases presented to Council did not report on Return on Investment.

2. **Inconsistent reporting:** ServiceOttawa Program reporting, through both project reporting tools (i.e. project closeout reports) and reports to Council included some inconsistencies as outlined below and did not always align with the records of the City's financial system.

   2.1. Information in project closeout reports does not always align to financial system information (SAP) and is not always supported.

   2.2. Inconsistent information was reported to Council committees.

3. **Lack of performance management planning:** At the onset of the ServiceOttawa Program, the Business Cases identified several anticipated service enhancements that would be achieved once the initiatives were implemented. Service enhancements were categorized into three types:

   - **Improved Customer Service**: Service enhancements that are directly linked to increased customer satisfaction, for example, increased quality in phone interactions with citizen's that call the 3-1-1 service.
   - **Better Access to Information**: Service enhancements that are directly linked to citizens increased ability to access information, for example, the upgrades made to the ottawa.ca website.
   - **Operational Improvements**: Service enhancements that are directly linked to improvements in the City's operations, for example, the reduction in recruiting cycle time due to manager self-services functionality (MSS).

   3.1. The Business Cases created for the ServiceOttawa Program lacked baseline information to determine whether service enhancements were achieved.

To address the areas of improvement above, the original Audit of the ServiceOttawa Program provided 6 recommendations for implementation by the City of Ottawa. The follow-up to the 2016 Audit of ServiceOttawa Program assessed the status of completion for each recommendation, results of which are summarized in Table 1 below. Details on the assessment are included in the detailed report.

Table 1: Summary of status of completion of recommendations

Recommendations	Total	Complete	Partially complete	Unable to assess
Number	6	1	3	2
Percentage	100%	17%	50%	33%

The recommendations found to be partially completed included:

- *A due diligence process should be defined and followed for all major City initiatives*. The City's Business Case Guidelines outline a due diligence process, however, the follow-up identified that projects have not consistently implemented all stages of the City's Business Case Guidelines.
- The City should consider implementing a Project Performance Measurement process and/or a plan that would include a current state assessment to define baseline information that would be required to support expected results. The City's Project Management Directive and Framework includes a requirement that project managers work with Corporate Financial Services to outline the financial impacts of projects to the City within the Business Case Guidelines. However, neither projects examined worked with Corporate Financial Services to outline the financial benefits of the projects.
- The City, in collaboration with Finance, should define cost savings, as well as provide guidelines for how cost savings should be tracked and documented for cost savings initiatives. The City's Project Management Framework provides direction on when and how to develop project objectives including success measures and key performance indicators (KPIs). However, no requirements for approval of or ongoing measurements against success measure and KPIs are included within the Framework and there are no requirements or guidelines for establishing project baseline information.

The recommendations that were unable to be assessed included:

- The City should establish guidelines and quality control measures to help ensure information presented to oversight committees and Council is consistent and accurately reflects achieved results. The auditors were unable to assess this recommendation due to a lack of projects with similar reporting requirements to Council as were established for the ServiceOttawa Program.
- The City should ensure that information on revenues and expenses for programs through which significant investment is made are accurately reported in project documentation were unable to be assessed. The auditors were unable to assess this recommendation based on the level of detail provided in project status reports, which could not be verified in SAP due to timing differences.

Conclusion

Management has shown some progress towards the implementation of recommendations from the Audit of ServiceOttawa Program. Specifically, one of six recommendations was assessed as complete, three of six were assessed as partially complete, and the remaining two recommendations could not be assessed through this follow-up.

While management responses stated that recommendations were complete based upon the implementation of the City's Project Management Policy and Framework, it was found that in the project management practices of the City have not been significantly improved by the Framework because it has not been consistently applied. This may result in projects that lack alignment between strategic and operational objectives and which may not result in specific and measurable benefits for the City.

The Office of the Auditor General met with management regarding the incomplete recommendations and have agreed that these items will be addressed during the next review of the City's Project Management Directive and Framework, and Business Case Guidelines. We have assessed that no further follow-up is required.

Acknowledgement

We wish to express our appreciation for the cooperation and assistance afforded the audit team by management.

Detailed report – Assessment of implementation status

To complete the assessment, the auditors reviewed key City policy documents, including the Project Management Framework and Corporate Business Case Guidelines. Following this, two projects were selected and assessed to determine whether they were managed according to City documents. Projects were selected that were similar in nature to components of the ServiceOttawa Program, including projects expected to result in efficiencies for the City. The projects selected for review were:

- The Project Information Management System (PIMS) project encompasses the implementation of a complete Project and Portfolio Management (PPM) solution for the City's Planning, Infrastructure and Economic Development (PIED) Department as a part of the broader Integrated Departmental Management Plan. A business case was completed for the PIMS project on May 1, 2015. This project includes the selecting and configuring the solution, as well as supporting the migration of current project management practices to be included as part of the PIMS solution. The PIMS project charter was approved in June 2016 and the project has a budget of $5.6 million.
- The AquaCIS Replacement Project (ARP) encompasses the replacement of an end-of-life IT system (AquaCIS) used as the City's current water and sewer billing customer information system. While the replacement is required based on the outdated technology, the ARP project will bring additional benefits through new services for City of Ottawa residents and increased automation and integration with other business systems. The new solution will also support the City's new rate structure for water and sewer billing. The project charter was approved in June 2016 and has a budget of $8.3 million.

The following information outlines management's assessment of the implementation status of each recommendation as of December 2016 and the Office of the Auditor General's (OAG) assessment as of March 2018.

Recommendation #1

Table 2: Status

Management update	OAG assessment
Complete	Partially complete

Audit recommendation:

A due diligence process should be defined and followed for all major City initiatives. The due diligence process should include soliciting input from key stakeholders (i.e. impacted departments) to help ensure reasonability of projections, assumptions and implementation plans.

Original management response:

Management agrees with this recommendation.

As identified by the auditor, the ServiceOttawa Steering Committee, comprised of 11 members of the Senior Management Team, performed a challenge function on the proposed ServiceOttawa Program initiatives. The City contracted IBM in 2009 as an industry leader in technological investments. At the outset of the Program, IBM solicited input from key City stakeholders and subject matter experts to develop business cases for the opportunities that had been prioritized by the Steering Committee based on their potential for cost savings and/or revenue generation. A full-day facilitated workshop was conducted on June 26, 2009 with the Senior Management Committee. The results of the session were reviewed by the Steering Committee on July 15, finalized by Senior Management Committee on July 23 and approved by Executive Committee on August 10, 2009.

The Executive Sponsor of the Program, the Deputy City Manager of City Operations, reported the final results of the due diligence process to Council as part of the 2009 Budget process in the November 2009 Corporate Efficiency Savings Program - Information Supplemental to the Budget Estimates report to the Audit, Budget and Finance Committee (ACS2009-COS-ODP-0016).

In January 2014, a new Project Management Policy and Framework was approved by the City's Executive Committee to ensure a common and consistent application of project management principles and practices. The Policy and Framework were developed using best practices and learning from large-scale projects like the

ServiceOttawa Program. It includes tools and resources to further support a due diligence process, stakeholder consultation and engagement.

The Business Case Guidelines within the Framework direct staff to seek input during the options development stage, specifically stating that:

- Options can be generated by working groups (brainstorming exercises) composed of senior managers (business input), stakeholders and clients (user input) and other specialists as required (for example, technical input).

This Policy and Framework is the City's standard operating procedure for Project Management and is used to ensure key stakeholders are appropriately engaged for all future initiatives like the ServiceOttawa Program.

Management considers this recommendation complete.

Management update:

Based on management's original response, no update was requested.

OAG assessment:

The City's Business Case Guidelines outline a due diligence process, however, the follow-up identified that projects have not consistently implemented all stages of the City's Business Case Guidelines.

The City has defined a due diligence process for all strategic plan initiatives, new and renewal of infrastructure assets, technology investments and other change initiatives. The City's Business Case Guidelines outline a detailed due diligence process for initiatives to proceed through stages of engagement with key stakeholders where input is solicited to ensure the reasonability of projections, assumptions and implementation plans. It was found that the due diligence process described within the Business Case Guidelines were appropriate.

During the follow-up, two projects currently being undertaken by the City were selected to assess whether the projects had completed all stages of the due diligence process as defined in the Business Case Guidelines. The projects selected were:

- Project Management Information System (Planning, Infrastructure and Economic Development Department): Implementation of a complete Project and Portfolio Management solution to fulfil Infrastructure Services branch requirements.
- AquaCIS Replacement Project (Corporate Services Department): Replacement of the City's current Water and Sewer Billing Customer Information System.

During the follow-up, it was found that both the Project Management Information System (PIMS) and AquaCIS Replacement Project (ARP) were not able to provide support for the completion of all stages as outlined in the City's Business Case Guidelines, which came into effect in January 2014.

Project Information Management System

A business case dated May 1, 2015, was created and approved for the PIMS project, for which 8 out of 12 stages of the Business Case Guidelines were either completed or partially completed.

It was found that a business case was completed, that departments affected by the change were consulted, relevant stakeholders were consulted to ensure the accuracy of non-financial benefits and a plan for reporting progress on the project to stakeholders was created.

It was found that the following stages were partially completed for the project:

- The proposal was discussed with an immediate supervisor, manager or connected stakeholder to determine viability of proposal: While the business case cites senior management's agreement with related recommendations, the business case, while approved by the business owner[1], does not identify senior management's support of the selected option.
- Stakeholders for each option were identified: While the business case identifies a limited number of stakeholders throughout the document, project documentation lacks clear identification of key stakeholders[2] and their roles.
- The level of importance or influence of each stakeholder was identified: While the project documentation did not provide a holistic listing of stakeholders, within project documentation key stakeholders for escalated decision making are identified.
- The recommendation was rationalized to the approver using both financial and non-financial criteria: While the business case identifies qualitative (i.e. non-financial) benefits of the project, the business case does not provide financial benefits of the project to support management decision making.

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[1] The business owner is the Manager, Asset Management, who is not considered Senior Management

[2] The City's Business Case Guidelines define key stakeholders as elected officials, regulators, residents, users, staff and unions.

Key steps of the business case process that were not completed include:

- The convening of internal and/or external working groups to develop options, identification of stakeholders for each option.
- Consultation with Shared Services Departments on their capacity to support the project.[3]
- Corporate Financial Services were not consulted to outline the financial benefits of the project for the City.
- Financial criteria were not included to ensure that the recommendation was rationalized to the approver using both financial and non-financial criteria.
- Progress on business case was not reported to relevant stakeholders.

AquaCIS Replacement Project

While the ARP Project Charter is dated June 19, 2016, following the implementation of the City's Project Management Framework and Business Case Guidelines, a Business Case was not developed for the ARP project. While the Project Charter is dated June 2016, project documentation preceding this date was identified that include:

- **Concept Value Case (2008):** Provides a short project narrative, an initial investment category selection with justification, a project description, benefits, costs, a risk assessment and an organizational change impact where stakeholders are identified.
- **Renewal Application (2010):** Prepared by ITNet on behalf of the City of Ottawa, the Renewal Application outlines the current state of the AquaCIS System including data flow diagrams, diagrams displaying system users/interactions, current transaction volumes and documents key features of the current system and requirements of the replacement system.
- **Corporate IT Value Proposal (2014):** Includes a description of the current business process, the requested change (i.e. full replacement of the water billing system) and measurable value both to the resident and in terms of financial value based on efficiencies/revenues.

[3] For PIMS, the Business Case included a Project Risk Analysis Table that identified both risks and dependencies on shared services departments, as well as planned mitigation strategies for the key risks. However, during the Follow-up, no evidence was observed that shared services departments were consulted regarding their capacity to support the project.

It was found that these documents are not aligned to the updated Business Case template and do not fulfil the requirements of the due diligence process of the Business Case Guidelines.

As identified above, project documents (e.g. Concept Value Case, Corporate IT Value Proposal, Project Charter) for the ARP project were completed at different points in time, resulting in a lack of alignment between the project planning documents and the final iteration of the project in the approved Project Charter.. Specifically, the initial project described in the Concept Value Case and the Corporate IT Value Proposal (i.e. from 2008 and 2014) outlines a “like-for-like” replacement of the AquaCIS Water Billing application. However, the current ARP project includes a solution which will offer additional services and upgrades from the current application.

It was found that the ARP project identified the level of importance or influence of each stakeholder and created a plan for reporting progress on the project to stakeholders.

However, there was no documentation to demonstrate that the following stages of the due diligence process were completed:

- The proposed solution was not discussed with an immediate supervisor, manager or connected stakeholder to determine the viability of the solution prior to implementation of the project.
- There was no evidence that during the options development and analysis phase that internal and/or external working groups were convened to develop options or that options analysis was completed.
- Shared Services Departments were not consulted on their capacity to support the project.
- Corporate Financial Services was not consulted to outline the financial impacts to the City.
- Relevant stakeholders were not consulted to ensure the accuracy of non-financial benefits for the project.
- The recommendation was not rationalized to the approver using both financial and non-financial criteria.
- Progress on the business case was not reported to relevant stakeholders.

Impact

As the City is not consistently applying the due diligence process described in the Business Case Guidelines, there remains a risk that reasonability of projections, assumptions and implementation plans for City projects are not appropriately developed and approved.

Recommendation #2

Table 3: Status

Management update	OAG assessment
Complete	Partially complete

Audit recommendation:

The City, in collaboration with Finance, should define cost savings, as well as provide guidelines for how cost savings should be tracked and documented for cost savings initiatives.

Original management response:

Management agrees with this recommendation.

The ServiceOttawa Program involved the implementation of multiple large-scale, transformative, enterprise technology and business solutions. On September 11, 2009, the Executive Committee and Senior Management Committee jointly defined cost savings within the ServiceOttawa Program as base budget reductions.

Cost savings were defined in this way because of the:

- Financial complexity of the Program.
- Challenges associated in predicting the realization of efficiency savings based on enterprise technology implementation timelines.
- The requirement to ensure that base budget reductions were realized for each year of the Program.
- Challenges translating productivity improvements into FTE savings.

This approach to benefits realization and timeline was presented to Committee on November 17, 2009.

The ServiceOttawa Program achieved $40.5 million in efficiencies on an ongoing basis in alignment with what was presented to Council as well as over 260 client service improvements.

The Finance Department was responsible for tracking the base budget reductions as a key member of the ServiceOttawa Steering Committee. Given the complexity and variation of initiatives at the City, management will continue to work with Finance to

determine a best approach and definition for cost savings on a case-by-case basis and will track and document them accordingly.

Management considers this recommendation complete.

Management update:

Based on management's original response, no update was requested.

OAG assessment:

The actions as described in the management update were assessed as partially complete.

The City's Project Management Directive and Framework includes a requirement that project managers work with Corporate Financial Services to outline the financial impacts of projects to the City within the Business Case Guidelines. However, as noted in the previous section, neither the PIMS nor ARP projects worked with Corporate Financial Services to outline the financial impacts of the projects.

Projects that automate manual processes, such as both the PIMS and ARP projects are expected to result in improved processing times and reduced requirements for FTE resources to complete tasks. As such, both PIMS and ARP should have been reasonably expected to result in either cost savings or future cost avoidance for the City.

However, neither the PIMS nor ARP project quantified the efficiencies in such a fashion that can be tracked and measured against. Specifically, neither project defined expected cost savings or future cost avoidance resulting from the project, nor are these quantifiable benefits achieved through the project being tracked.

Project Information Management System

The PIMS Project Charter states that the objective of the project includes increasing efficiencies within the departmental project management process, including efficiencies that will reduce resource requirements for project management activities. While the reduced resource requirements were identified, cost savings or future cost avoidance were not defined.

Further a Time-Activity study conducted for the Infrastructure Services Department[4] documented the current level of effort for various project management activities (e.g. site visits, issues, procurement, scope changes, reporting) at the project manager and management level (i.e. program managers and managers) and provided a comparison to an "ideal" level of effort for activities. The study identified an additional 1.6 full-time equivalent level of effort at the management level that should be occurring within the project manager level as a result of the IDMP program, which includes PIMS. If successful, the reallocation of the level of effort to the project manager level, the City may achieve cost savings based upon the difference in project manager and management level salaries, which will have been driven in part by PIMS.

AquaCIS Replacement Project

The ARP Project Charter identifies project outcomes that will reduce the overall complexity of current data management processes and required manual entry (e.g. increased efficiency, improved quality of customer services and improved efficiency of job control processes). It was found that within the ARP project kick-off presentation, cost savings were identified as an expected outcome of the project. However, the expected cost savings were not estimated and quantified, and therefore, cost-savings have not been tracked.

Impact

As the City is not defining financial benefits for projects, there is an increased likelihood that the City will not realize potential financial benefits (i.e. cost savings or future cost avoidance) achieved through projects, and/or these financial benefits may not be effectively tracked and/or reported upon.

As the City is not defining financial benefits for projects that should reasonably be expected to achieve cost savings or future cost avoidance, it is likely that the City is not maximizing and/or realizing financial benefits that could result from investments. This reduces the value for money obtained by the City for all investments.

[4] At the time of the Time Activity study, the Planning, Infrastructure and Economic Development Department was named the Infrastructure Services Department.

Recommendation #3

Table 4: Status

Management update	OAG assessment
Complete	Unable to assess

Audit recommendation:

The City should establish guidelines and quality control measures to help ensure information presented to oversight committees and Council is consistent and accurately reflects achieved results.

Original management response:

Management agrees with this recommendation.

The ServiceOttawa Program's reports to Council represented the most significant reporting to Council compared to any previous information technology investments at the City of Ottawa. This included a total of 25 reports to Council and Committee over the course of the Program, which included:

- Reports to Information Technology Sub-Committee (ITSC) on ServiceOttawa Program budget figures through reports supplemental to the budget on an annual basis from 2011 through to 2016 as a part of the City of Ottawa's annual budget process, which included financial updates based on revenues projected to year-end.
- A ServiceOttawa Update presented annually to Finance and Economic Development Committee (FEDCO) as Information Supplemental to the Budget Process.
- Fourteen (14) service enhancement updates (reports and presentations) to the ITSC.
- Financial reconciliation reports through the Disposition of Tax and Rate Supported Operating Surplus/Deficit report presented to FEDCO and Council annually.

A report was not submitted to FEDCO in the last year of the Program as the final year of capital authority had been approved by FEDCO as is the process in the previous year.

The final financial status of the ServiceOttawa Program was reported to FEDCO – in accordance with the annual City capital close-out reporting practices – in the Capital

Adjustments and Closing of Projects – City Tax and Rate Supported on June 7, 2016 (ACS2016-CMR-FIN-0019).

The ServiceOttawa Program final report was presented to the Senior Leadership Team on November 24, 2016.

To address the auditor's finding regarding quality control measures for the presentation of projected revenues on the Sponsorship and Advertising project identified as benefits achieved, moving forward, Finance will make clear in the financial section of reports to Committee and Council that, where revenue is presented before reconciliation, the figures are based on revenues projected to year-end.

Management considers this recommendation complete.

Management update:

Based on management's original response, no update was requested.

OAG assessment:

The OAG was unable to assess the City's status for establishing guidelines and quality control measures to help ensure information presented to oversight committees and Council is consistent and accurately reflects achieved results.

Due to the significance of the ServiceOttawa Program, including the investment, expected cost savings and service enhancements associated with the ServiceOttawa Program, the City required the ServiceOttawa Program to report to Council in more detail than is required for other City projects.

At the time of the follow-up, the auditors were unable to identify ongoing projects with similar reporting requirements to Council as were established for the ServiceOttawa Program. As such, the auditors are unable to assess the completeness of this recommendation that the City should establish guidelines and quality control measures to help ensure information presented to oversight committees and Council is consistent and accurately reflects achieved results.

Recommendation #4

Table 5: Status

Management update	OAG assessment
Complete	Complete

Audit recommendation:

The City should develop a policy that defines when Return on Investment (ROI) be calculated and presented to Council for projects.

Original management response:

Management agrees with this recommendation.

For the ServiceOttawa Program, the City contracted IBM in 2009 as an industry leader in technological investments to develop business cases for Council's consideration for a significant investment in technology for enhanced service and cost savings. The IBM business cases included a yearly cost and benefits as well as a full five-year analysis of cumulative costs, cumulative benefits, (components of ROI calculations) net benefits and payback period and anticipated service enhancements, which were presented to Council in November 2009.

In January 2014, a new Project Management Policy and Framework was approved by the City's Executive Committee, which requires a business case for each project. The Business Case Guidelines include the need to address ROI through a cost-benefit analysis or net present value and deliberate timing of project costs to be incurred.

Management considers this recommendation complete.

Management update:

Based on management's original response, no update was requested.

OAG assessment:

It was found that this recommendation was completed by the City. Within the City's Business Case Guidelines, the fourth stage of the business case development process is the conduct of an economic analysis. The objective of the economic analysis is to provide the reader of the business case with an evaluation of the costs and benefits associated of the project, both financial and non-financial.

The Business Case Guidelines further states that benefits should be quantified (in dollars terms) as far as is practical. It was noted that the Business Case Guidelines are designed to be scalable for City projects which, while offering flexibility for the City, results in a lack of clarity as to when the project management process described in the Business Case Guidelines should be applied.

While the recommendation within the 2016 Audit of the ServiceOttawa Program specified that the City should develop a policy that identifies when a Return on Investment be calculated for City projects, the Business Case Guidelines focus on Cost Benefit Analysis (CBA) for City projects[5]. As per the Business Case Guidelines, CBA involves cataloguing project impacts as benefits (pros) and costs (cons), valued in dollars to determine the net benefits of a proposal relative to the status quo. For this recommendation, CBA is considered a reasonable alternative to ROI, and the recommendation is considered complete.

However, while the performance of CBA is considered a reasonable alternative to ROI, it was found that CBAs were not performed for either the PIMS or ARP projects. Specifically, while it is identified within the Business Case Guidelines that it is a best practice to catalogue benefits in terms of dollars, this did not occur for either project despite opportunities to do so (e.g. as both projects were expected to result in efficiencies for staff, there was a reasonable opportunity to quantify the benefits in terms of staffing costs saved).

[5] Projects involving capital investments in excess of $100 million and involving senior government funding require a Value for Money analysis to determine whether a Public-Private Partnership procurement would be the best option for project delivery, otherwise, Value for Money analysis is not required.

Recommendation #5

Table 6: Status

Management update	OAG assessment
Complete	Unable to assess

Audit recommendation:

The City should ensure that information on revenues and expenses for programs through which significant investment is made are accurately reported in project documentation.

Original management response:

Management agrees with this recommendation.

The ServiceOttawa Program's consolidated financial view was reported – in accordance with the annual City capital close-out reporting practices – in the Capital Adjustments and Closing of Projects – City Tax and Rate Supported report presented to FEDCO on June 7, 2016 (ACS2016-CMR-FIN-0019). The ServiceOttawa Program final report, including all final financial reconciliation, was presented to the Senior Leadership Team on November 24, 2016.

Given the complexity of the ServiceOttawa Program, the ServiceOttawa Steering Committee directed staff to complete the project close-out activities in late 2014 and early 2015 despite that some projects were in the process of producing their final deliverables. As a result, the financials included in individual project close-out reports represented financials at the time of project close-out, not at the time of financial reconciliation. The Steering Committee agreed that the final reconciliation of the program financials would be brought to the Senior Management Committee once the annual capital close-out report was completed by the Finance Department and presented to Council in June 2016. This was done to minimize the costs of maintaining project resources during the financial reconciliation process, however, management recognizes that project documentation should be completed only once all project deliverables are completed and should reflect actual financial data.

In January 2014, a new Project Management Policy and Framework was approved by the City's Executive Committee that ensures that information on revenues and expenses for programs and projects where significant investments are made are accurately reported in project documentation.

Management considers this recommendation complete.

Management update:

Based on management's original response, no update was requested.

OAG assessment:

While the Project Management Policy and Framework specifies that control mechanisms be used to measure the cost of work completed, the Framework does not include specific provisions regarding the reporting of project information, nor does the Framework reference controls related to the reporting of revenues.

While neither the PIMS nor ARP projects are expected to result in increased revenues for the City, both projects track and report on project expenses periodically.

Specifically, the PIMS project completes monthly Capital Monitoring Reports for internal PIED stakeholders (i.e. the PIED Departmental Management Team, the Infrastructure Services Team, and a few other PIED members) involved in initiatives under the Integrated Departmental Management Plan; is included as a line item in Quarterly Operating Capital Reports to Council at FEDCO; and is included as a line item in the Budget Transportation Work in Progress (WIP) Report to Council.

Reporting performed for the ARP project includes monthly dashboards to the City Manager's Office (CMO), quarterly presentations to the project Steering Committees, Monthly Capital Report Finance Reports generated from SAP; and a line item in Quarterly Operating Capital Report to Council at FEDCO.

The OAG reviewed project reporting on expenses for each project as identified above and compared financial figures reported under cost categories including project budgets, actuals (i.e. expenditures) and commitments.

During review, variances between reports for both the PIMS and ARP projects were identified. For the PIMS project, these include the unspent project balance reported as of August 31, 2017 in the Budget Transportation WIP Report which was $405,828 higher than the balance tracked internally for August.

Through correspondence with the PIMS project management team, it was verified that this variance is based on other agreements (i.e. not contractual) being excluded from the Budget Transportation WIP as well as a difference in time of reporting which alters the commitments being reported as they are reported at the respective dates the reports are run.

Variances in reporting for the ARP include actual expenditures presented in the October CMO dashboard were $328,125 higher than those included in the Capital Report Finance Report from October. Through correspondence with the ARP Project Authority, it was confirmed that this variance is based on the timing of obtaining actual expenditures for each report.

For both projects, reports lack detail on the information being presented including the exact date at which financial information was collected; as well as a breakdown of what is included in cost categories (e.g. budget including capital and operational budget as of May 1, 2016).

During the follow-up, the accuracy of financial information contained within reports was not verified. Neither project reviewed was required to provide detailed reports on project revenues and expenses that were comparable to the reporting requirement for the ServiceOttawa Program. Based on the level of detail in status reports completed and provided for each project, verification through SAP could not be completed. It was further stated that discrepancies between reports were the result of timing differences. Therefore, while inconsistencies between the reports were identified, the auditor did not assess which reports contained accurate financial information.

Recommendation #6

Table 7: Status

Management update	OAG assessment
Complete	Partially complete

Audit recommendation:

The City should consider implementing a Project Performance Measurement process and/or a plan that would include a current state assessment to define baseline information that would be required to support expected results.

Original management response:

Management agrees with this recommendation.

In March 2013, halfway through the Program, Interis, an external auditing firm, was contracted to review the progress of the Program to date and make recommendations for improvement going forward. One of the recommendations provided by Interis was to establish performance metrics to evaluate project performance. Based on those recommendations, performance metrics were established and tracked for projects that had not yet been completed.

By the end of the ServiceOttawa Program, it had achieved $40.5 million in efficiencies on an ongoing basis with over 260 client service improvements, which were validated with staff and/or through technology.

At the beginning of the ServiceOttawa Program, limitations to the City's performance measurement systems restricted management's ability to measure baselines at the outset of the Program. Now with the implementation of over 30 technologies, the City achieved the automation of many back-end systems, which allows departments to better understand their current state and quantify improvements.

In January 2014, a new Project Management Policy and Framework was approved by the City's Executive Committee that includes the requirement for staff to set well-defined objectives. Project baseline information is defined in the Business Case and Project Charter and refined in the Project Management Plan. Project performance measurement is tracked and reported through Status Reports (during the project) and Project Close-Out Reports (at the end of the project).

Management considers this recommendation complete.

Management update:

Based on management's original response, no update was requested.

OAG assessment:

The City's Project Management Framework provides direction on when and how to develop project objectives including success measures and KPIs. However, no requirements for approval of or ongoing measurements against success measure and KPIs are included within the Framework. Further, there are no requirements or guidelines for establishing project baseline information.

Both the PIMS and ARP projects identified success measures and/or expected results of the project. The projects also documented baseline information such as a Time-Activity Study of project management activities within the Infrastructure Services Department for the PIMS project and a Renewal Application Overview for the ARP project.

However, the baseline information documented for the projects was not aligned to the success measures and/or expected results identified for the projects. Further, project status reports did not clearly track and report progress made using project-specific performance measures. Since both projects are currently active, project close-out reviews were not applicable for this follow-up.

For both projects, misalignment between baseline information and project objectives stemmed from project goals being defined at a stategic level (e.g. improve client services), without direct alignment to quantified, operational level goals using the Specific, Measurable, Achievable Realistic and Time-bound (SMART) format as outlined in the City's Business Case Guidelines.

Project Information Management System

Expected results of the PIMS project were identified within the PIMS project charter, including: *enhanced risk management planning and reporting, enhanced reporting capabilities with access to live data, enhanced communication among vendors, clients and internal and external stakeholders, integration with existing systems to facilitate easy and efficient exchange of data, reduction of the number of in-house constructed templates used across the department, reduction of the time required to respond to data requests, resulting in staffing efficiencies, improved financial management and reporting on projects and reduced time required to extract data, improved data quality, including enhanced security, completeness, accessibility of data for ISD staff, resulting in new*

performance reporting capabilities and metrics for the department, improved Project Status Update process and forms; and improved staff engagement and satisfaction.

Baseline information was included in a Time-Activity study which presents average times spent on various project management activities completed by the Infrastructure Services Department. It was noted that, baseline information from the Time-Activity study is relevant to 2 out of the 10 expected results identified above (i.e. reduction of the time required to respond to data requests, resulting in staffing efficiencies and reduced time to extract data and improved financial management and reporting on projects and reduced time required to extract data).

Through review of PIMS project documentation, no baseline information was identified for the remaining 8 out of 10 expected results reviewed that relate to enhancements, integration, process improvements, security and accessibility.

Through review of status reporting completed for the PIMS project, it was identified that status reports do not track and report on progress being made towards expected benefits in comparison to baseline measures.

AquaCIS Replacement Project

Baseline information from 2010 was provided in the Renewal Application Overview for the ARP project. The baseline information included current volume of accounts managed through the existing application, number of users, frequency of reporting and level of automation for each report.

Expected results of the ARP project include as stated in the project charter include: *faster and easier implementation of new rate structures or billing streams that in turn enable increased revenues; automation of Finance Revenue (i.e. Corporate Financial Services) redundant transactional tasks; workflow management for automated routing and tracking of tasks, processes and approvals; consumption management for residents and improved leak notification; increased efficiency and improved quality of customer service, improved public facing web services for City residents, ability for the City to be self-sufficient for future business rules modification, improved data reporting and inquiries, cost/time savings; and reduced need for unnecessary call sheets and improved timeliness for requests for information.*

Baseline information corresponds to 1 out of the 10 expected project results (i.e. Automation of Finance Revenue redundant transactional tasks). No baseline information was provided for the remaining 9 out of 10 expected results reviewed.

Further, it is noted that baseline information was not updated to reflect the current state at the time of the project initiation in 2016.

Through a review of status reporting completed for the ARP project Steering Committee, it was identified that status reports include detailed information on the progress of the project. Specifically, progress made towards implementing the City's new rate structure for water billing is being reported. While progress on specific activities under the ARP are being reported, performance measurement criteria has not been defined (e.g. thresholds to determine "All Good", "Needs Attention", and "Critical" status) and progress towards achieving each expected result is not being tracked against baseline information, where defined (e.g. increase in percentage of automated Finance Revenue reductant transactional tasks).

Impact

Because baseline information is not aligned to expected results, the City is unable to effectively assess whether investments resulted in improvements for the City, including cost savings. There is also an increased likelihood that benefits that could reasonably be expected to be achieved by the City are not realized, including potential cost savings.

Table 8: Status legend

Status	Definition
Not started	No significant progress has been made. Generating informal plans is regarded as insignificant progress.
Partially complete	The City has begun implementation; however, it is not yet complete.
Complete	Action is complete, and/or structures and processes are operating as intended and implemented fully in all intended areas of the City.
Unable to assess	Action is not currently taking place; however, remains applicable.