



**Office of the Auditor General: Annual Report,
Tabled at Audit Committee – November 30, 2017**



Office of the Auditor General

November 30, 2017

Mayor, Members of Audit Committee and Council,

I am pleased to present the Annual Report of the Office of the Auditor General of the City of Ottawa.

Respectfully,

A handwritten signature in black ink that reads "Ken Hughes". The signature is written in a cursive style with a large initial "K".

Ken Hughes

Auditor General



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Overview of activities

In 2017, we completed audits and follow-ups that were in process at the end of 2016. We also began working on audits and follow-ups that had been previously approved by Council. Our Annual Report on the Fraud and Waste Hotline was presented to the Audit Committee in June. In May and earlier this month, we presented follow-up reports to the Audit Committee. Also earlier this month, we presented our 2018 Annual Audit Work Plan.

Six new audits and one review were completed since my last annual report in December 2016. These include:

- Audit of Child Care Services
- Audit of Information Technology (IT) Remote Access
- Audit of the Management of the Lansdowne Contract
- Audit of the Regulatory Framework for Light Rail Transit
- Audit of Road Services Branch – Contract Management
- Report on the Audit of the Emergency Preparedness and Response for Health Services – Operational Review
- Review of the Management of Emergency Shelter Providers – Contract Management

It should be emphasized that recommendations arising from audits represent the Auditor General's suggested course of action to resolve the issues identified; however, once these recommendations and management responses are approved, they become direction from Council. As such, progress in implementing these recommendations has been viewed as fulfilling Council's direction.

As audits are developed, depending on the nature of the findings, it may be more suitable to issue some related audit elements in separate reports; for example, less significant issues may also be addressed through the issuance of management letters provided directly to management. Since the last Annual Report, we have issued two management letters related to audits.

Fraud and Waste Hotline

The City's Fraud and Waste Hotline is an anonymous and confidential vehicle for City staff and the general public to report suspected fraud or waste. Our Office continues to be responsible for the administration of the City's Fraud and Waste Hotline which is available for employees and the public as part of the City's Fraud and Waste Policy. Our Office reviews all cases submitted through the Hotline; however, Council approval would be sought prior to conducting any specific audits that might arise from these reports. The bulk of the investigations related to the reports are done by City management and reviewed by the Office of the Auditor General (OAG). The OAG resources required to support the Hotline is roughly two full time equivalents (FTE) or significantly higher at times due to higher case volume and the nature of cases. We will be issuing a full report of the Hotline's 2017 activity at a future Audit Committee meeting.

Tabling protocol

The Auditor General reports directly to Audit Committee, a standing committee of Council and reports annually on all audit reports completed during the course of the year. This is generally to be done in the fall, unless it is an election year, in which case the report would be deferred until after the new Council has completed budget deliberations for the year. In addition to presenting audit reports annually, we also present a report on the activity of the Fraud and Waste Hotline. This is generally done mid-year. Our Office also conducts follow-ups on previously completed audits. These follow-ups present an evaluation of management's progress in implementing previous audit recommendations. Follow-ups will be presented as they are completed, generally once or twice a year. This allows the Audit Committee to focus discussion on this significant activity.

The by-law governing the OAG can be found in Appendix A.

Budget

The annual budget for the Office of the Auditor General is in accordance with the budget strategy for the Term of Council. The 2017 budget for the City of Ottawa Auditor General's Office was \$1,832,000.

Executive summaries of each audit

As per protocol, the Auditor General is required to report on any audit recommendation where management and the OAG disagree. For this reporting period, there were no disagreements. The following section presents executive summaries for each of the following audits.

- Audit of Child Care Services
- Audit of Information Technology (IT) Remote Access
- Audit of the Management of the Lansdowne Contract
- Audit of the Regulatory Framework for Light Rail Transit
- Audit of Road Services Branch – Contract Management
- Report on the Audit of the Emergency Preparedness and Response for Health Services – Operational Review
- Review of the Management of Emergency Shelter Providers

Acknowledgement

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

Audit of Child Care Services

Purpose

The audit examined the effectiveness and appropriateness of the City's practices and controls for administering child care services under a revised Provincial funding model.

Rationale

The City of Ottawa's Children Services unit plans and manages the delivery of child care programs and services on a cost-shared basis on behalf of the Province. An agreement with the Ministry of Education outlines the City's key roles. These include entering into funding agreements with local licensed service providers who deliver child care services and programs under Provincial guidelines.

A number of allocations under different funding streams are available to the local service providers including General Operating funding, Fee Subsidies and Special Needs resources. The City has contribution agreements with service providers that represent 26,550 licensed spaces (81 per cent of all licensed spaces in Ottawa). In addition, the City operates 11 child care centres with a total of 504 spaces.

The City of Ottawa's 2016 child care budget was \$119.7 million. Provincial funding made up \$93.5 million of the budget with the City contributing \$26.2 million (\$13.2 million as its legislated cost shared portion plus an additional \$13 million).

Approximately 168 full time equivalents in the Community and Social Services department (CSSD) were directly involved in service delivery for child care services.

As a result of Provincial Child Care Modernization, the City, like other municipalities was required to develop and implement a new funding framework by the end of 2015. The City's strategy for child care for the year was documented in its Service Plan which was approved by Council in April 2015. The Service Plan included investing \$11.5 million from the Child Care Reserve between 2016 and 2020. These funds would assist the not-for-profit agencies that were expected to see a drop in government funding as a result of the transition to the new funding framework.

The new model also included a significant change to how the fee subsidy is distributed. Under the new model, which came into effect on January 1, 2016, eligible parents can retain their subsidy when they move to another child care provider. The City prioritizes families that are eligible for fee subsidy based on criteria in Provincial legislation and Council approved policies.

The City's has adapted its child care service processes in response to the significant Provincial changes. Efficient and effective controls and timely and accurate information are important to ensure that Provincial funding is used as intended and child care spaces are assigned on a priority basis within the available budget. This audit aimed to assure Council of the soundness of Children Services practices to deliver on these objectives.

Findings

The audit focused on processes, practices and controls in four key areas which were selected based on risk:

- Waitlist management, eligibility assessment and management of fee subsidy funding;
- Information provided to Committee and Council and Senior Management for decision making purposes;
- Controls to manage service levels and administrative costs and ensure that service providers use funds for intended purposes; and
- Occupational Health and Safety and succession planning for key staff.

The key findings associated with each area are as follows:

1. Waitlist management, eligibility assessment and management of fee subsidy funding

The audit found that there is a centralized waitlist and processes are in place to assess eligibility for fee subsidy and assign spaces on a priority basis. Staff promptly assess the initial applications for child care services with genuine care for applicants and recipients. However, we found that the waitlist is not accurate and that management has not reinforced key controls related to ensuring on-going eligibility for fee subsidies. There is also inadequate oversight over the assessment process. These gaps have had a significant negative financial impact.

- The City uses its waitlist to quantify and prioritize children eligible for fee subsidy who are waiting for child care spaces. The City reports the number of children on the waitlist, both eligible for fee subsidy and not eligible, in its annual Service Plan. We found the number of children reported to be on waitlist for fee subsidy is overstated by somewhere between 55 and 244 children (6 to 25%). The many manual steps used to calculate the figures increases the risk of error. The data is also not reviewed by a second person.

- The eligibility of families receiving subsidized care is to be reviewed at least annually. No annual reviews were conducted for 29 months. These reviews were reinstated by management during the course of this audit. Based on our discussions with staff, annual reviews were stopped by management in 2014 and 2015. As of May 31, 2016 there was a backlog of 2,810 annual eligibility reviews. Without these reviews many families that became ineligible continued to receive subsidized child care. We estimate that a backlog of 2,810 annual reviews has an on-going financial impact of at least \$1.477 million per year, due to the ineligible subsidies that are not discovered and terminated. In 2016 these on-going ineligible subsidies resulted in the City being unable to provide subsidies to new eligible families as the budget became exhausted.
- In addition to the annual review, City's procedures require staff to follow-up with applicants at key points, such as at the end of an education program or job search period, to confirm that they remain eligible for subsidized child care. The audit found that as of May 31, 2016, there were 2,106 such "bring forward" items in applicant files that had not been followed up.
- According to City policy, when parents are found to be ineligible for subsidy, staff are to calculate the amount of subsidy that was provided after they became ineligible. Any such amount is then to be recovered from the parents. However, staff have been treating these as administrative errors and have not been calculating or recovering overpayments. Staff informed us that this was due to a processing backlog. We were unable to estimate the amount uncollected.
- Despite an active monitoring process in place, management continued to process fee subsidy applications and place children in spaces beyond the available \$64.4¹ million fee subsidy budget. In January 2016 staff projected a deficit of \$2.3 million for the non-exempt portion² of the subsidy budget for 2016. Despite this, they continued subsidized placements and the projected deficit increased to \$3.5 million by July 2016. Despite the growing projected deficit, due in part to not complying with the policy on annual reviews, management continued to approve new subsidies. Management indicated that they planned to rely on the Child Care

¹ As per 2016-2017 Service Plan.

² The exempt portion of subsidy funding is set aside for children from the vulnerable population and emergency placements.

Reserve to fund the projected deficit. However, the adequacy of the current uncommitted balance in the Reserve is unclear³.

- Attendance recording practices do not ensure that children who receive a fee subsidy from the City are actually attending child care. The process relies on supervisors at the service provider centres to submit attendance data. The risk is that service providers are in a conflict situation as they may have an incentive to report an absent child as attending in order to continue to receive subsidies. We note however that these attendance practices comply with Provincial guidance.
- There is limited independent review of staffs' work to reduce the risk of eligibility being incorrectly assessed. Therefore, errors in eligibility assessment and re-assessment could occur without detection. Per City policy, Team Leads are to review 2% of initial assessments files on a sample basis, or roughly 100 files per year. In the 38 files that Team Leads reviewed in 2016 up to the time of the audit, 13 (34%) had issues, primarily related to not setting up "bring forwards". Our testing of a sample of initial eligibility assessments also found errors in the calculations of parental contributions. These errors resulted in added costs to the City and/or parents, depending on the case.

2. Information provided to Committee and Council and senior management for decision making purposes

The audit found that some of the information in the 2016-2017 Service Plan and provided to Council and senior management contained inaccuracies which could result in program and budget decisions being based on inaccurate information. Specifically, we found that:

- The numbers of full fee and fee subsidy families reported to be on the waitlist in the 2016-2017 Service Plan was incorrect. The plan reported that as of February 26, 2016 there were 984 children waiting for a fee subsidy space out of a total of 8,830 waiting for a licenced child care space. The waitlist for fee subsidy figure was overstated by somewhere between 55 and 244 children (6 to 25%).
- The Service Plan report to Committee and Council did not identify the risk or additional costs associated with collecting receivables from parents. Effective January 1, 2016, the City pays the full fee to service providers and collects the non-subsidized portion from the parents/guardian, if applicable. Prior to the

³ Subsequent to the audit, the City's 2017 budget documents report that all funds in the Child Care Reserve are fully committed over the ensuing years (2016-2020). The 2016 Child Care Services deficit of \$2.2 million was funded from the City Wide reserve.

change this risk was borne by the service providers who saw the parents on daily basis. We believe the risks and costs of collection should have been elaborated.

- There has not been a full cost/benefit analysis of the 11 City run child care sites in the Municipal Child Care (MCC) program. The cover report to Committee and Council with the 2016-2017 Service Plan refers to the MCC Program Review as having been completed in 2015. We found, however, that this review was not done in 2015 and management intends to complete a full costing of the MCC program by 2018. The delay in using this full costing information to ensure that each MCC site is meeting the Council approved mandate⁴ is potentially costing the City millions of dollars annually.
- We also found that the waitlist and annual reassessment numbers and termination rates provided to Senior Management to monitor the program were not always complete, accurate and timely.

3. Controls to manage service levels and administrative costs and ensure that service providers use funds for intended purposes

In 2016, a total of \$89 million was allocated in the child care annual budget for the three main funding streams for disbursement to service providers. The audit found that controls were in place to monitor the funding provided to service providers, however they were not being adequately applied. City files did not contain all the documentation that service providers were required to submit according to the terms and conditions of the contribution agreements. There was also no documented evidence of review of files by City staff. Missing documents and inadequate monitoring could result, for example, in the City not identifying an organization in financial difficulty and providing it with funds that should not be given. The City would then not be able to recover these amounts.

The audit also found that there was no monitoring of performance against Provincial service level and administrative cost targets throughout the year to ensure that the City is on track to meet them. This limits the time that the City has to take any corrective actions, if any are needed. Unmet targets could affect funding and the budget.

4. Occupational Health and Safety and succession planning for key staff

The audit found no significant issues in these areas.

⁴ April 27, 2016 Council approved that the mandate of the Municipal Child Care programs is to serve vulnerable families in areas of the City where there are insufficient child care spaces to meet demand and no other child care operators are able to shift their service offerings.

Conclusion

Since June 2014, Child Care Services has undergone significant changes and the City's Children Services unit has worked progressively to establish structures, policies and procedures to respond to the City's expanded role in the delivery of child care and to Provincially driven changes in child care funding guidelines. Child care processes are in place to assess eligibility for fee subsidy and assign spaces on a priority basis with staff promptly assessing initial applications with genuine care for applicants and recipients. However, we observed major lapses in the reinforcement of existing controls, and inadequate oversight.

The City did not consistently meet the Provincial requirement for annual reviews or the City's own requirement for ongoing assessments of eligibility for child care fee subsidies. This failure to conduct reviews had budget implications and is the primary reason that the 2016 fee subsidy budget was forecast to be over budget and eligible parents were deprived of subsidies as the placement of new fee subsidy children had to be stopped in October 2016. The City also did not collect overpayments from ineligible parents and there was inadequate monitoring of funds used by service providers.

Information provided to Committee and Council and Senior Management in relation to the waitlist and costs of the Municipal Child Care Centres was also not complete, accurate and timely. This may impact decisions and results in the risk that the City is expending more funds than required or that it is expending its funds in a manner that does not maximize the number of eligible fee subsidized children placed.

More focus on reinforcing controls that are already present in policies and procedures is needed to ensure that Child Care funding is used as intended and benefits an optimal number of families.

Potential savings

The following are potential cost saving opportunities for Child Care Services:

- Clearing the backlog of annual reviews and reducing the number of ineligible families receiving subsidies. The estimated impact of not clearing the backlog is \$1.477 million per year.
- Retroactively recovering subsidies paid to families from the time of ineligibility.
- Comparing full cost and benefits of municipal child care sites to external service providers may identify opportunities for cost savings.
- Improving the use of technology could streamline the application, annual review and “Bring/Forward” processes.

Recommendations and responses

Recommendation #1

That the City ensure that the waitlist figures are accurate by changing the calculation to remove duplicates, children that have already been placed and children that no longer require the space.

Management response:

Management agrees with this recommendation.

As part of Child Care Modernization efforts, the City of Ottawa assumed responsibility for the management and monitoring of the CCRAW from a third party in June 2014 and developed and implemented a new technology to support greater parental choice in child care. Further system changes were made effective January 1, 2016 to meet the business objectives under the new fee subsidy model. The implementation of the new technology required the migration of historical data and a new system and process for parents and staff to enter the information into the technology. Children’s Services is working with the vendor to identify enhancements to the system that will address duplicates, children that have already been placed and children that no longer require the space to ensure they are no longer included in the waitlist figures.

The City continues to work with the system developer, internal staff, parents and members of the child care community on an ongoing basis to support the new fee subsidy model and meet the needs of parents and child care service providers as

it relates to subsidized children. As such, system enhancements continue to be identified as the accuracy of the fee subsidy waitlist remains a priority.

This recommendation will be implemented by Q1 2018.

Recommendation #2

That the City evaluate the costs and benefits of implementing a technology solution to reduce the manual effort involved in calculating the waitlist figures.

Management response:

Management agrees with this recommendation.

Management will evaluate the costs and benefits of implementing a technology solution to reduce the manual effort involved in calculating the waitlist figures by Q4 2018.

Recommendation #3

That in the next Service Plan reported to Committee and Council, the City define the extent to which children with future start dates are included in waitlist figures.

Management response:

Management agrees with this recommendation, and it has been implemented.

The waitlist system can now identify children according to their preferred start date, including current and future dates, which will be reported in the next Service Plan.

Recommendation #4

To improve the accuracy of the waitlist figures reported, that the City formalize a quality assurance and/or management review in the calculation process.

Management response:

Management agrees with this recommendation.

A quality assurance and/or management review will be developed as part of the calculation process of waitlist figures by Q2 2018.

Recommendation #5

That the City update process documentation for generating waitlist figures.

Management response:

Management agrees with this recommendation.

The current process for documenting and generating waitlist figures will be updated to reflect the steps involved in obtaining the data by Q2 2018.

Recommendation #6

That the City correct the errors in the five files in the audit sample.

Management response:

Management agrees with this recommendation, and it has been implemented.

The files requiring corrective action were assigned to a Team Lead, and the errors were corrected in December 2016.

Recommendation #7

That the City develop and implement a plan to improve the initial assessment process to ensure compliance with policies and procedures and to assess the impact of these steps in reducing the rate of errors.

Management response:

Management agrees with this recommendation.

Children's Services has undergone a significant period of change as a result of Provincial Modernization, legislative changes and internal re-organization. This included the implementation of a new funding framework, system conversion, changes to the fee subsidy program that allowed for more parental choice and an expanded role in the delivery of child care.

During this period, processes, policies and procedures were under review and were continuously updated and rolled out to support staff in order to maintain responsive service delivery to families and children while balancing priorities.

As noted in this audit, processes were in place to support the initial eligibility assessment. Within the sample subsidy applications, the calculation of the parental contribution was completed in a timely manner (e.g. average of 3 days, well within the 10-day limit) with staff promptly assessing the initial applications for child care services with genuine care for applicants and recipients. Eligibility for a fee subsidy was correctly assessed for 22 out of the 23 applications.

Management has begun consulting and developing a plan to improve the initial assessment process to further ensure compliance with guidelines and procedures. A new Subsidy Coordinator training checklist is being implemented that includes training and monitoring of the initial assessment. Management has also prioritized refresher training on the initial assessment practice and procedure for existing staff.

Management will continue to determine what strategic improvements can be made in fee subsidy operations. This recommendation will be implemented by Q2 2018.

Recommendation #8

That the City revise its procedures for Team Leads' reviews of initial assessments to:

- increase the percentage reviewed;
- obtain more representative coverage of files and employees;
- focus on files that represent a higher risk of error;
- document how files are selected; and
- address steps to take when errors are found.

Management response:

Management agrees with this recommendation.

The supervisory review of child care fee subsidy files is a mandatory requirement of business operations to ensure that decisions are made in accordance with the *Child Care and Early Years Act*, Ontario Child Care Service and Management Funding Guidelines and City of Ottawa practices and procedures. The Guidelines are silent on the amount of file reviews a Consolidated Municipal Service Manager (CMSM) must complete to be in compliance.

In addition to the new Subsidy Coordinator training checklist (which includes a double-signature process for all new staff within the probationary period), the City of Ottawa's File Review Practice and Procedure will be updated to initially increase the percentage of files reviewed from 2% to 5% per year. The methodology for file selection will include a representative sample of all staff conducting eligibility assessments.

The training plan and monitoring noted in the response to Recommendation 7 will ensure that steps are taken to address error trends identified through the file

reviews. The percentage of files reviewed may be reassessed as a decrease in the rate of error is achieved.

This work will be completed by Q2 2018.

Recommendation #9

That the City ensure that required Team Leads' reviews of initial assessments are completed each year.

Management response:

Management agrees with this recommendation.

The local File Review Practice and Procedure will be revised to include a monitoring procedure by management to ensure that file reviews are completed each year. This work will be completed by Q2 2018.

Recommendation #10

That the City conduct annual reviews, ongoing reviews and follow-up of bring forward items on a regular basis and monitor compliance.

Management response:

Management agrees with this recommendation.

As described earlier in the rationale section of the report, the audit coincided with the implementation of significant changes in the delivery of child care services. This included the implementation of a new funding framework, changes to the fee subsidy program that allowed for more parental choice and an expanded role in the delivery of child care and municipal efforts to modernize services. Even with these significant changes, staff completed annual/ongoing reviews and followed up on bring forwards where possible with actions being taken on reported changes to the client files.

Management will ensure that annual reviews continue as per the local Annual Review Practice and Procedure. A local practice and procedure will be developed for ongoing reviews and follow-up of bring forward items within the case management function to ensure regularity and monitoring of compliance by Q4 2018.

The action planned in response to Recommendation 7 will also address training and monitoring of compliance.

Recommendation #11

That the City consider changing the child care process to require parents to annually reapply for subsidized child care.

Management response:

Management agrees with this recommendation.

The current local Annual Review Practice and Procedure identifies parental and staff responsibilities in the annual review process to resubmit documents to ensure ongoing eligibility within 12 months.

Management will consider implementing a re-application process for child care subsidy while balancing the need to ensure a continuity of care for children eligible for fee subsidy by Q4 2018.

Recommendation #12

That the City consider technology options to allow parents to electronically submit documentation.

Management response:

Management agrees with this recommendation.

Technology options will be considered to allow parents to electronically submit documentation. An environmental scan will be completed by Q2 2018.

Recommendation #13

That the City establish a policy/procedure for Children Services to address potential conflicts of interest in conducting assessments and reviews.

Management response:

Management agrees with this recommendation, and it has been implemented.

Although the audit found no evidence of conflict of interest or related party transactions and subsidy staff in practice, adhered to the "Application for Assistance Made by Staff" Practice and Procedure, the Procedure was formally updated in April 2017 to specifically include child care subsidy staff. This information was shared with all staff via email on May 2, 2017.

Recommendation #14

That the City properly manage the fee subsidy budget and limit the approval of subsidized placements to the amount of the authorized budget and if required to the available reserve.

Management response:

Management agrees with this recommendation.

On January 1, 2016, the fee subsidy model shifted to allow more parental choice where subsidy funds now follow the child, not the provider. This resulted in an increase in the number of children served. As noted in the audit there have been active processes in place to monitor the fee subsidy budget since the shift to the new model.

Budget reviews in early 2016 indicated a potential overspending of the fee subsidy budget. Forecasting the total costs of subsidies in the new model was complex as it had to consider a variety of factors including: age of the children, family income and, provider per diems.

Mitigation measures were implemented by prioritizing annual reviews over a number of months. When the annual reviews did not fully mitigate the financial pressures, management initiated steps to suspend fee subsidy placements. Children continued to be placed until September 30, 2016 as suspending access to new fee subsidy placements prior to September (which is the peak period for placements in child care) may have caused significant hardship to families and service providers. A notice period of a minimum of six weeks is required to inform the sector. This notice was sent in August 2016 to advise providers that at the end of September 2016, subsidies would be suspended pending available budget.

Changes were made to the placement technology and processes in Q1 2017. Functionality was added to advise service providers when subsidy funds are no longer available and subsidized children can no longer be placed. Both of these steps contribute toward the business objective of system sustainability. Effective March 15, 2017, new fee subsidy placements became available through attrition (i.e. children exit care / families no longer eligible) to assist the highest prioritized families.

Management will continue the work started in Q1 2017 to improve the budget monitoring tool and processes to align with the new fee subsidy model that was implemented in 2016. The current budget monitoring tool and process will be

revised to reduce calculation errors, improve quality assurance and ensure placements are only approved within the available budget by Q4 2017. This response also applies to Recommendations 15 and 16.

Recommendation #15

That the City change the spreadsheets used in the fee subsidy management calculations to correct the calculation errors.

Management response:

Management agrees with this recommendation.

The spreadsheets used for fee subsidy management calculations are being reviewed and revised to ensure accuracy in reporting. This work began in Q2 2017 and is expected to be completed by Q4 2017.

Recommendation #16

That the City implement quality control and/or management review steps in the fee subsidy monitoring calculation process.

Management response:

Management agrees with this recommendation.

Management review approaches that build on work that began in Q2 2017 will include quality assurance related to the fee subsidy monitoring calculation process. This work will be completed by Q4 2017.

Recommendation #17

That the City consider the costs and benefits of expanding attendance monitoring procedures to provide assurance that the children for whom the City is paying a fee subsidy are attending the centres.

Management response:

Management agrees with this recommendation.

The City of Ottawa is currently in compliance with Provincial requirements associated with attendance reporting.

A review of attendance monitoring approaches will be completed to determine if other processes can provide any additional assurance that the children are attending the centres and submitting accurate attendance data. This work will be completed by Q4 2018.

Recommendation #18

That the City direct staff to comply with the Overpayment and Recovery procedure and quantify and recover amounts for past periods where parents did not notify the City of their change in status.

Management response:

Management agrees with this recommendation and it has been implemented.

Staff were provided comprehensive training in March 2017 on the recently reviewed and revised local Overpayment and Recovery Practice and Procedure.

Recommendation #19

That the City monitor compliance with the Overpayment and Recovery procedure.

Management response:

Management agrees with this recommendation and it has been implemented.

The audit found that procedures were in place to calculate and recover overpayments and management has also provided training as indicated in the response to Recommendation 18.

In April 2017 staff were provided with a tool to track all overpayments as a means to monitor compliance. Compliance will be further verified through the increased file reviews by the Team Leads as outlined in the response to Recommendation 8.

Recommendation #20

That the City reconcile the Aged Accounts Receivable reports for Child Care to the General Ledger account in the accounting system on an ongoing basis.

Management response:

Management agrees with this recommendation.

The Aged Accounts Receivable reports will be reconciled to the General Ledger account by Q4 2017 and then on an ongoing basis thereafter.

Recommendation #21

That the City review its inventory of CSSD procedural documents, prioritize the processes and ensure key processes are documented and updated as required.

Management response:

Management agrees with this recommendation and it has been implemented.

Despite the significant changes referenced in the audit, it was noted that a large number of process flowcharts and procedural documents exist.

As part of the Practice and Procedure work plan, Children's Services will ensure that fee subsidy practices and procedures are prioritized, documented and updated in accordance with a regular review cycle.

Recommendation #22

That the City complete the MCC Program Review as soon as possible in 2017.

Management response:

Management agrees with this recommendation.

In April 2016 Council approved the mandate of the Municipal Child Care Centres and, a viability and sustainability workgroup was established in Q3 2016. A framework is currently being developed that will include key metrics that guide recommendations and decision-making. This work will be completed by Q4 2017.

Recommendation #23

That the City document the costing methodology and standards to be used in the compilation of the cost/benefit analysis of the MCC Program.

Management response:

Management agrees with this recommendation.

The cost/benefit analysis methodology and standards will be documented as part of the framework outlined in the response to Recommendation 22. This work will be completed by Q4 2017.

Recommendation #24

That the City retain source documents and implement a quality control review of the figures in future SPs.

Management response:

Management agrees with this recommendation.

All source documents will be retained and a quality control review of the reported figures will be included in future Service Plans. This will begin in Q2 2018 to align with the next Service Plan.

Recommendation #25

That the City improve the management reporting for the annual review performance reporting dashboard.

Management response:

Management agrees with this recommendation.

Management currently receives a number of reports related to various aspects of the business, including: the waitlist, the fee subsidy budget, workload, etc. The frequency of the reports varies and may be provided on a weekly, monthly, quarterly and/or annual basis. Management disseminates the reports/data on an as-needed basis, including a dashboard of annual review measures.

Improvements to the accuracy of reporting have been made and/or are underway in areas such as the waitlist, the fee subsidy budget monitoring reports and, overpayment recoveries that will contribute to informed decision-making. This work will be completed by Q2 2018.

Recommendation #26

That the City develop and implement the use of file documentation checklists to monitor agreement compliance by service providers.

Management response:

Management agrees with this recommendation and it has been implemented.

In January 2017, management established the Children's Services Funding and Financial Accountability Branch to build on existing practices related to the monitoring, oversight and accountability of service providers.

New contribution agreements were implemented in 2016 in association with the new funding model. This includes enhanced reporting requirements that will be monitored yearly to ensure compliance. A file documentation checklist has also been developed to monitor agreement compliance by service providers.

Recommendation #27

That the City aggressively monitor and take meaningful documented actions with service providers to ensure agreement compliance.

Management response:

Management agrees with this recommendation and it has been implemented.

As described in the response to Recommendation 26, the Children's Services Funding and Financial Accountability Branch will continue to monitor ongoing agreement compliance with service providers, including documentation while balancing availability of child care spaces and continuity of service for families.

Recommendation #28

That the City implement a quality assurance/management review process to ensure completeness of service provider files and to improve oversight.

Management response:

Management agrees with this recommendation and it has been implemented.

As described in the response to Recommendation 26, the Children's Services Funding and Financial Accountability Branch has implemented a checklist that includes a review by a second party to ensure quality assurance.

Recommendation #29

That the City establish procedures to report and monitor service level and administrative cost targets with sufficient lead time to take any necessary corrective action.

Management response:

Management agrees with this recommendation.

Historically, Children's Services has met and exceeded Provincial service level targets as a result of the municipal contribution that surpassed the Provincial requirement. The service level targets for 2017 were approved by the Ministry of Education in July 2017.

The Children's Services Funding and Financial Accountability Branch have been working with the Financial Services Unit to develop a practice to monitor service level targets and administrative cost targets that includes regular reporting to align

with the 2017 Provincial contribution agreement. This work will be completed by Q3 2017.

Recommendation #30

That the City complete a development plan as part of the CSSD succession plan.

Management response:

Management agrees with this recommendation.

As mentioned in the audit critical positions required to ensure business continuity were identified and documented, including potential successors for these positions across CSSD branches.

Management continues to have regular one-to-one conversations with staff about performance and development as part of the annual performance review cycle.

Management will follow the corporate direction to develop a comprehensive succession plan. This will be completed by Q4 2018.

Recommendation #31

That the City reconstitute the Social Services Centre Joint Health and Safety Committee and recommence quarterly meetings.

Management response:

Management agrees with this recommendation and it has been implemented.

Occupational Health and Safety requirements are being addressed in a timely fashion in 14 of the 15 sites where child care services are being delivered, with monthly inspection reports being completed, hazards assessed and action planned and/or taken as required. The remaining site was able to secure quorum and recommenced quarterly meetings in July 2016.

Audit of Information Technology (IT) Remote Access – at a glance

What we examined

The audit examined the extent to which the City of Ottawa (the “City”) was effectively identifying and mitigating risks, including security risks, associated with providing remote access (RA) to the City’s Information Technology (IT) network. We also looked at how the City supports availability and performance of RA and provides timely and effective support to users.

Why we did this audit

The City is increasingly dependent on technologies that allow employees and other authorized users to access the City’s network from remote locations. While supporting efficiency and effectiveness in a number of business situations, remote connections also increase the risk of unauthorized access. Unauthorized access can lead to data loss or corruption, exposure of private or confidential information and service interruptions.

What we concluded

We concluded that weaknesses and gaps in security practices and controls designed to prevent incidents of unauthorized RA expose the City’s information systems to a range of potentially significant risks including data loss or corruption, exposure of private or confidential information and service interruptions. These issues include weaknesses in the technical security practices and controls that the City depends on to detect, respond and prevent incidents of unauthorized access. With the pace of technological change and the City’s increasing dependence on remote access, it is imperative that the City fully responds to the recommendations in this report, and complementary recommendations in previous IT audits, in a timely manner.

What we found

While the City has taken initiative to improve aspects of RA controls, risk management and governance, including the planned implementation of a new information security standard, we found weaknesses and gaps that require timely attention. The range of our

findings extends from a lack of formal strategy for RA to concerns related to specific technical matters as described below:

Remote access technology strategy – The City does not have a strategy to direct and inform its RA related priorities, investments and decision making. Further, since management of the City’s RA-related risks is not managed by a central authority, there is higher likelihood that these risks will not be optimally managed in a consistent manner.

Recommendation – The Chief Information Officer (CIO) should ensure that the City’s IT strategy incorporates remote access across all departments and services. The strategy should consider how individual departments connect and secure remote access to critical services. The IT strategy should address, where applicable, work needed to respond to prior IT audits.

Recommendation – The City should ensure their new standard for remote access is adopted across all City departments and supported as a corporate service managed by a central security authority. The standard should clearly define the scope and boundaries of the Enterprise Computing Environment.

Recommendation – The City should take steps to ensure that a review and update of its IT policies is completed at least every two (2) years.

Remote access architecture – We found that the City has not developed an inventory of its RA technologies and connections nor has it developed a comprehensive map showing the technologies, connections and nature of information moving between the City’s network and the remote connection. Without such an inventory and map, it is very difficult to establish that RA technologies and connections are appropriate and authorized, and to confirm that appropriate security measures are in place.

Recommendation – The City should develop and maintain a document or diagram which effectively describes city-wide IT network architecture across all departments and services. Changes to the architecture should be subject to CIO approval.

Recommendation – As remote access connections are made across City networks, departments and services, the City should create a central register of all remote access solutions employed corporately and within City departments. The register should identify the nature of the remote access, how it is isolated (or connected) to other City services network and any security considerations or requirements. Proposed changes to the register should be subject to CIO approval.

Remote access security gaps – While the audit identified various security measures, we found weaknesses and gaps in certain technical aspects of RA security.

[REDACTED]

Recommendation – The City should take steps to strengthen its mobile device management including the implementation of additional technical security requirements and controls for remote access.

- [REDACTED]
 - [REDACTED]
- [REDACTED]

Monitoring and oversight – We found that the City had entered into a contract with a new “Managed Security Service Provider” (MSSP) in June 2016. [REDACTED]

[REDACTED]

[REDACTED] We also found that the City has not yet implemented plans to conduct routine monitoring and testing such as vulnerability assessments, penetration testing and reconciliation of RA accounts. Such monitoring and testing activities are critical to ensuring that RA risks, which change over time, are identified and assessed in a timely manner.

Recommendation – The City should evaluate and implement enhancements to their remote access security management and monitoring, including:

- [REDACTED]
- Continuing to improve operational practices including vendor and employee account management and reconciliation.

Audit of Information Technology (IT) Remote Access – Executive summary

Introduction

The Audit of IT Remote Access was included in the 2016 Audit Plan of the Office of the Auditor General (OAG), approved by City Council in November 2015.

Background and context

As with most organizations, the City of Ottawa (the “City”) has increasingly leveraged technology to support the achievement of a variety of operational and strategic objectives. One of the many ways that technology has evolved over the last several years is the ability of City employees and other authorized users to access the City’s Information Technology (IT) network from locations other than from workstations in City offices. This access has greatly improved the efficiency and effectiveness of workflow in a number of business scenarios and across a variety of users. Remote Access (RA) is no longer viewed as an option; rather, it is considered an essential business component in supporting the IT needs of mobile workers (such as paramedics and by-law officers), vendors (who use RA to conduct maintenance and to monitor applications and systems) and teleworkers, to name just a few.

As business needs and the related benefits of RA continue to trend upward, so has the associated risk. From the proliferation of certain technologies, such as smart phones, to the increase in RA options, the likelihood of unauthorized access is also trending upward. Any such unauthorized access could potentially lead to a number of damaging outcomes including: data loss or corruption, exposure of private or confidential information and service interruptions. In this environment, the City must be proactive in its approach to managing risks and opportunities associated with new technologies. This includes taking steps to ensure that its policies, requirements, guidelines and practices balance business benefits with the need to ensure that both new and existing RA technologies and tools are sufficiently secure.

The City has established a framework of policies and requirements with implications for RA including the *Responsible Computing Policy*, *Information Security Policy*, *Technology Devices Policy*, as well as the *Employee Code of Conduct* to name a few. Included in the suite of IT policies is the *Remote Access to City Network Policy* (RACN Policy) which was established in 2006 and applies to all City employees who require

RA. The RACN Policy, last updated in 2012, establishes the user responsibilities, authorization processes and security safeguards that enable secure RA, by authorized staff, to the City network. It also identifies the various service offerings¹ provided by the City's Information Technology Services department (ITS) in support of RA. At the time of this audit, ITS was in the process of completing a comprehensive review and update of the City's IT policy framework, including the RACN Policy. This initiative led to the drafting of a number of new technology security standards including a new Information Security Standard - Remote Access Services (ISS-RAS). As described later in this report, the ISS-RAS addresses some important gaps in the existing policy framework and provides greater clarity regarding responsibilities and the authority of the Chief Information Officer (CIO). Clarification of CIO's authority under the draft ISS-RAS is particularly important in light of the customized RA solutions that exist within certain areas such as OC Transpo, Water Services, Traffic Services and the Ottawa Public Library, etc. where Independent Technology Groups (ITGs) exist. This new standard had not yet been implemented as of the completion of our audit work.

As referenced above and described further in this report, concerns related to governance, including roles, responsibilities and authorities, have contributed to a number of the observations raised by this audit. The OAG has completed several IT audits over the last few years where observations highlighted governance issues as a contributing factor underpinning many of the audit findings and recommendations described in this report. Prior audits included the Audit of IT Governance (2014), Audit of IT Risk Management (2015) and the Audit of IT Security Incident Handling and Response (2015). Each of these audits identified risk factors that were linked to the existence of proprietary technology or systems that are managed by ITGs² rather than centrally by ITS. This condition makes it difficult for the City to support consistent enterprise-wide IT strategies and requirements, including those related to security. These audits also highlighted challenges associated with a systemic lack of continuity in the CIO position. While this audit of RA was not designed as a follow up to any prior IT audits, both of these conditions continue to exist in 2017. These ongoing conditions increase the risk associated with RA and have been identified as contributing to many of

¹ The following service offerings are described in the RACN Policy: Web Mail, BlackBerry™, Virtual Private Network (VPN) i.e. access from a City owned Laptop, and Remote Desktop – i.e. access from an employee's personal computer.

² As described later in this report, the existence of ITGs does not preclude ITS's involvement in proprietary systems and technology only that such involvement was not governed by formal authority.

Audit of IT Remote Access

the audit findings and recommendations described in this report. During the course of this audit, the OAG engaged with ITS on the linkage between prior audit findings and the results of this audit and has encouraged ITS to remain diligent in addressing prior IT audit recommendations. As per the City's audit protocol, the OAG continues to take steps in support of the active monitoring and follow up of ITS's response to prior audit findings.

Audit approach and methodology

The overall objective of this audit was to provide an independent assessment of the adequacy and effectiveness of key systems, practices, procedures and governance in place to identify and mitigate risks, including security risks, associated with providing remote access to the City's network. Priority areas were as follows:

- Use of remote access;
- Roles and responsibilities for granting remote access;
- Remote access architecture and technology; and
- Remote access operations and monitoring.

Audit criteria were established based on leading IT Remote Access guidance, such as that published by the National Institute of Standards and Technology (NIST) including relevant elements of the NIST Cybersecurity Framework³.

Scope

The scope of this audit included remote access⁴ offered to authorized users through the following means:

1. Virtual Private Networks including:
 - a. Internet Protocol Security ("IPSec")
 - b. Encrypted Links (Secure Socket Layer "SSL")
2. Remote control connections, including Citrix and Remote Desktop solutions;
3. Mobile connectivity (Blackberries™, other smartphones, tablets, etc.); and
4. Web-based remote access including Outlook Web Access (OWA).

³"Framework for Improving Critical Infrastructure Cybersecurity", 2014

<https://www.nist.gov/sites/default/files/documents/cyberframework/cybersecurity-framework-021214.pdf>

⁴ The audit did not include access or communication gateways that do not interface directly with the City network (e.g. radio or other communications systems).

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Our examination included controls within ITS and across all City business lines and departments where RA capabilities exist, including those areas where ITGs exist.

For greater certainty, the scope of this audit did not involve an assessment of remote office VPNs nor access provided to Council members.

Summary of key findings

The findings in this audit report have been grouped according to the audit criteria. There are four resulting areas of findings:

- Strategy
- Inventory and Data Flows
- Security Gaps
- Monitoring and Oversight

Remote access technology strategy

In the OAG's 2014 Audit of IT Governance, it was noted that the City had developed a Technology Roadmap that provided insight to IT priorities, initiatives and objectives. However, that audit also raised concerns regarding the lack of clear alignment between IT investments and the City's strategic and business priorities. This audit found that the City had not yet addressed these concerns nor had it refreshed the Technology Roadmap since the 2013-16 version. It also confirmed that there are no plans to develop an RA Technology Strategy that would serve to support a consistent, city-wide, approach to RA priorities and decision making, and support clear ownership and management of RA-related risks. An RA Technology Strategy would also support the articulation of a clear vision for an efficient and enterprise-wide approach to remote access, including the need to balance business needs with security requirements and align planning/decision making around emerging areas such as mobile technologies.

The absence of a formal RA Technology Strategy with city-wide application was identified during this audit as a contributing factor related to findings associated with:

- Ownership and management of RA-related risks impacting the security of the overall network;
- Roles, responsibilities and accountabilities; and
- Governance/decision-making.

While the audit identified that roles, responsibilities and accountabilities at the operational level (e.g. RA account administration, approvals, risk assessments, etc.) are

generally clear and often supported by formal procedures and checklists, concerns were identified at the higher level. Specifically, the audit identified that ownership of the City's RA-related risks, roles, responsibilities and accountabilities has not been clearly established across City departments and at the corporate level. This observation is consistent with the OAG's 2015 Audit of IT Risk Management which identified a similar concern regarding the CIO's authorities and responsibilities for city-wide IT risks.

The audit found that, within its traditional areas of responsibility, ITS plays an effective and appropriate role in the monitoring⁵, oversight and mitigation of RA-related risks. However, as identified as a concern in various prior OAG audits, ITS's role does not formally extend to departmental RA deployments managed by ITGs. For these deployments, ITS's involvement may vary from no or limited involvement to significant involvement in all aspects of the initiative including the requisite decision making. This ongoing situation limits ITS's ability to have a holistic view of the City's RA technology in support of economical and effective strategic, and operational, planning and risk management. In the absence of a central authority with a holistic view of RA technologies, there is a significantly increased likelihood that RA-related risks will not be managed consistently across the organization, leaving the City's Network exposed to unintended security gaps or duplications.

Notwithstanding the concerns related to the lack of a city-wide RA Technology Strategy that effectively informs the City's vision for RA, the audit noted the existence of a number of initiatives that will help to address the concerns raised in this report. As noted in the Background and context section, ITS is in the process of completing a comprehensive review and update of the City's IT policy framework. This includes replacement of the existing Remote Access to City Network Policy which was identified as being both outdated and largely ineffective. The proposed new ISS-RAS Standard was found to provide good technical coverage for RA requirements related to monitoring, testing and patching, among others, and it provides clear expectations for end users regarding appropriate use. The draft standard also clearly indicates that it applies to all RA services that support remote connections to the "City's Enterprise Computing Environment" which includes those environments managed by ITGs and any third parties. It also clarifies that the CIO is required to sign off on any requested exclusions from the mandatory nature of the ISS-RAS. These are important elements

⁵ Monitoring of compliance is a shared responsibility between each department (e.g. monitoring non-City employee accounts) and ITS (e.g. monitoring citywide dormant accounts).

that will help to address some of the concerns raised in this audit and in prior audits⁶. Approval and implementation of this new standard (which has been in draft form since 2016) will be a key step in addressing existing RA-related control weaknesses and inconsistencies across the City.

Remote access architecture – Inventory and data flows

Given the increasing reliance on RA to support business operations including critical functions, the audit expected there would be a formally documented Enterprise Remote Access Architecture that would provide a comprehensive view of all RA connections across the City. Such a document would provide information on (1) how RA devices across all City departments interface; (2) the remote technologies in place, including those relevant to SCADA or proprietary applications with remote connectivity; and (3) the related data flows (i.e. the nature, such as volume or sensitivity, of information moving between the City's network and the remotely connected device).

The audit found that the City has not documented its Enterprise Remote Access Architecture, nor has it developed a comprehensive inventory of its RA technologies, connections and data flows at a city-wide level, including departmental implementations where ITS was not involved. While there is no enterprise-wide architecture, there was evidence of documented architecture pertaining to specific corporate RA services (including the City's VPN Infrastructure, BlackberryTM infrastructure, Remote Desktop connectivity) and an inventory of City owned laptops and Smartphones. We also understand that ITS has recently developed plans and assigned responsibility to build a central repository of RA risks and technologies. At the time of the audit, however, there were a number of potentially significant implications associated with not having a comprehensive enterprise inventory including an inability to develop and leverage effective strategic planning.

In the absence of effective strategic planning, there is an increased likelihood that investments in RA technologies, services and procedures will not be coordinated and result in unnecessary or ineffective investments and ineffective security measures. At the operational level, this gap increases the likelihood of a variety of negative outcomes including: security or regulatory (e.g. privacy) breaches resulting from non-conforming remote connections, delays in identification of such breaches and the use of unauthorized RA platforms. Finally, the new ISS-RAS states that it applies to information technologies that support connections to the City's "Enterprise Computing

⁶ As noted earlier, this audit was not designed as a follow-up to any prior IT audits conducted by the OAG.

Environment”. However, that “environment” needs to be clearly defined to avoid the likelihood of inconsistent interpretation by different groups across the City.

IT remote access security gaps

While providing reliable and highly available RA is a business imperative in the current environment, there are information technology security risks which are inherent in RA. These include potential breaches of confidentiality, integrity or availability. Mitigation and management of these risks requires that the City’s technical security practices and controls can detect, respond and prevent incidents of unauthorized access to information via RA services (i.e. VPN, Remote Desktop, smartphones). These practices and controls should reflect a consideration of both the City’s business requirements and the need for adequate security measures. In reviewing these security measures, the auditors considered the following contexts:

- Endpoint devices (i.e. the laptop or smartphone, used to access the City’s network) – devices need to be configured and secured against unauthorized and other potentially risky activities. A secure endpoint device will be encrypted, require strong passwords, incorporate malware prevention and is centrally managed with a locked-down configuration.
- Network architecture – The City must prevent unauthorized remote connections to the corporate network. The network design and architecture must ensure that departments with critical infrastructure have isolated it from RA through the corporate network.
- Support services – the support provided to RA users should promote a high degree of availability (including after-hours service) while reflecting appropriate security measures (e.g. validation of the user’s identity prior to providing service) and compliance with standards.
- Operational monitoring and incident detection – monitoring of RA traffic and activities should identify and escalate, as applicable, security anomalies, alerts and potential security incidents. The controls examined by the auditors include those outsourced by the City to a Managed Security Service Provider (MSSP).

The audit addressed the security measures referenced above through a series of technical tests which included the use of a City issued laptop and Blackberry™ smartphone which were used to connect to the City network via RA. The testing also involved the use of non-City issued devices that were used to identify exposures to unauthorized network access and functionality.

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Testing conducted on City issued devices revealed a number of effective security measures while also evidencing resilient RA systems capable of supporting high levels of availability. The auditors noted that default architecture ensures that critical infrastructure remains isolated from the corporate network. In terms of specific security measures, the City issued laptop was found to be considerably more secure than the smartphone. The laptop provided effective controls to prevent bypass of restrictions (e.g. passwords) or elevate the user's access to beyond what was authorized. Among other effective features, the laptop was configured with updated security software, featured full disk encryption, and did not allow the unauthorized export of VPN software to a non-City laptop.

Among the other positive results of the testing in this area, the audit team's testing of City RA systems revealed that the RA network architecture did not exhibit significant vulnerabilities to unauthorized access. Authorized users were also found to be restricted in terms of access and functionality when connecting non-City owned devices via RA. In addition, audit testing concluded that the City has established RA management operating procedures suitable for end user support and effective account administration.

However, the audit testing also yielded concerns related to weaknesses and gaps in the RA security environment. The existence of these weaknesses or gaps could compromise the City's ability to prevent, detect and respond to incidents, including unauthorized access. Specifically, the audit identified the following concerns related to the technical aspects of RA security:

- City issued mobile devices are not sufficiently secured;

• [REDACTED]

• [REDACTED]

- Security monitoring has not been optimized to detect and respond to RA security breach scenarios.

These are further described below.

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Audit testing conducted using the City issued smartphone⁷ revealed that the mobile device was configured with the latest Blackberry™ operating system and various security measures, including Blackberry's "balance" feature to separate work and personal spaces. Further, the City's device management system generated an email alert to the user when anomalous activity⁸ was detected. However, the device was not considered to be sufficiently secure in light of the weaknesses and gaps identified.

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As with the City issued smartphone, testing of the City issued laptop confirmed that core security safeguards were implemented, including encryption, restricting administrative access, current antivirus software and current operating system patches.

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⁷ The City is in the process of replacing its Blackberry™ devices, including the one used for audit testing. However, the findings identified in this audit will not be impacted by these changes and remain relevant following the change.

⁸ In this case, the alert indicated that the device was no longer enabled with services that support policies and security settings intended protect the City's information and network and that their cell service may be suspended if the situation was not rectified.

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The audit also examined authentication controls that are intended to assure that users are who they claim to be. Authentication can be validated by a combination of factors; the more factors required, the stronger the control. For example, the requirement for a password would be a one-factor authentication. Two-factor could be a password in combination with digital certificate, while three-factor would also include a biometric (e.g. a fingerprint or retinal scan). [REDACTED]

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Passwords are susceptible to theft and misuse. [REDACTED]
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The City's efforts [REDACTED]
[REDACTED] no longer reflects the industry standard and increases the risk of unauthorized users gaining access to the network.

As part of the technical testing, the audit team also created security incidents using malware, containing a non-functional virus, to determine if the City's security technologies would detect and block the attempted security breach. While one of the tests was successfully detected, reported and blocked, similar other tests were not detected, reported or blocked. Had this been a malicious attack, the City's Network would have been susceptible to the hacker's objective.

Monitoring and oversight

Preventing security incidents, while providing reliable and available RA, is an important objective. Notwithstanding, it is a near certainty that security incidents will occur. Whether malicious in intent or otherwise, we expected that the City would have formal and effective capabilities that would support timely detection and response and escalation in the event of actual or potential security events or other circumstances that threaten the availability of RA services. Further, we expected to see an effective regime of oversight whereby: RA solutions that are being considered for implementation are subject to risk assessments and are tested for vulnerabilities; practices, roles and

Audit of IT Remote Access

responsibilities for managing RA accounts are effective and appropriate; and where effective and timely incident reporting is used in support of continuous improvement.

Consistent with the observations in the OAG's 2015 Audit of IT Security Incident Handling and Response, this audit revealed that the City has incident monitoring, detection and escalation capabilities which include RA applications. While these capabilities continue to lack maturity, as highlighted in the 2015 audit, there were also signs of improvement over the last two years. For example, in 2016 the City entered into a contract with a new Managed Security Service Provider (MSSP) with the objective of improving service delivery and value add compared to its previous arrangement. We also identified ITS's comprehensive review and update of the City's IT policy framework; particularly, the development of a proposed new ISS-RAS as representing a potentially significant improvement in the oversight and control of RA solutions through the enforcement of mandated risk assessments. Also of note, was the audit's findings that effective and formal practices were in place regarding the granting of RA and that practices in support of the effective RA account administration; for example, the periodic reconciliation of users had been improved.

Notwithstanding the improvements referenced above, the audit revealed some gaps and weaknesses in the City's ability to detect and respond to security threats and vulnerabilities related to RA. Specifically, the audit identified the following concerns related to monitoring and oversight:

- [REDACTED]
- There has not been focused third party penetration testing of remote points to identify possible issues¹¹.

These issues are further described below.

In June 2016, the City entered into a contract with a new MSSP provider. During the audit, it was identified that the City and the new MSSP are still in the process of implementing the new service arrangement. [REDACTED]

¹¹ This observation is mirrored in the 2015 Audit of Security Incident Handling and Response whereby it was recommended that the CIO conduct penetration testing on all critical infrastructure.

Industry standards suggest this process would normally take less than three (3) months which is considerably less time than the City's experience.

Use cases describe specific scenarios and vulnerabilities that the MSSP would be expected to identify through monitoring. They would also provide the basis for the nature and scope of RA activity logs that should be collected and the types of RA activity (or "traffic") the MSSP is responsible to monitor. The MSSP has implemented standard use cases under their contract with the City.

[REDACTED]

As part of the technical testing, the audit conducted vulnerability scans of the City's RA servers. While these scans did not identify any significant vulnerabilities, they were not designed to provide the level of assurance that would be provided by a focused vulnerability assessment or penetration test conducted by a third party. Consistent with findings from the 2015 Audit of IT Security Incident Handling and Response, it was noted that vulnerability assessments and penetration testing was not routinely conducted¹² on all corporate and departmental RA solutions. Interviews with ITS personnel further indicated that ITS has historically performed risk assessments on RA solutions on a case-by-case basis based on the perceived level of risk. This existing weakness is addressed by the proposed new ISS-RAS which requires that vulnerability assessments on RA technologies are conducted two times a year, and threat/risk assessments be conducted at least once every three years. As referenced in Recommendation 2, staff are encouraged to implement this new standard as soon as possible.

Audit interviews and document review results indicated that reconciliation of RA accounts¹³ (those provisioned to non-City employees) had not been completed in a timely manner. However, during the course of the audit, ITS commenced an initiative to reconcile its database of third parties with RA to ensure the access was still required

¹² The audit team noted that the new CITRIX VPN solution, scheduled for implementation in 2017, had undergone a vulnerability assessment.

¹³ These are accounts held by Non-City Employees (NCE), including contractors and vendors that require RA as part of their responsibilities.

and that relevant information was current and accurate (e.g. contract end dates, contact names within the relevant City business line, etc.). The audit team understands that this improvement to RA account administration will be sustained with periodic reconciliation to ensure account access is limited to appropriate and authorized users.

Recommendations and responses

Recommendation #1

The CIO should ensure that the City's IT strategy incorporates remote access across all departments and services. The strategy should consider how individual departments connect and secure remote access to critical services. The IT strategy should address, where applicable, work needed to respond to prior IT audits undertaken by the OAG.

Management response:

Management agrees with this recommendation. The CIO will take steps to incorporate remote access across all departments and services into the IT strategy by Q2 2018.

Recommendation #2

The City should ensure their new standard for remote access is adopted across all City departments and supported as a corporate service managed by a central security authority. The standard should clearly define the scope and boundaries of the Enterprise Computing Environment.

Management response:

Management agrees with this recommendation. The Technology Risk Security Management authority will ensure that the 'Technology Security Standard - Remote Access Service' is adopted across all City departments and supported as a corporate service managed by a central security authority by Q2 2018.

Recommendation #3

The City should take steps to ensure that a review and update of its IT policies is completed at least every two (2) years.

Management response:

Management agrees with this recommendation. The CIO will take steps to ensure that by Q4 2018, all policies will be refreshed, whereby a further two-year update cycle will be implemented.

Recommendation #4

The City should develop and maintain a document or diagram which effectively describes city-wide IT network architecture across all departments and services. Changes to the architecture should be subject to CIO approval.

Management response:

Management agrees with this recommendation. The CIO will take steps to ensure that city-wide IT network architecture across all departments and services will be documented and the documentation maintained by Q3 2018. Changes to the architecture will be processed through a review structure for approval.

Recommendation #5

As remote access connections are made across City networks, departments and services, the City should create a central register of all remote access solutions employed corporately and within City departments. The register should identify the nature of the remote access, how it is isolated (or connected) to other City services network and any security considerations or requirements. Proposed changes to the register should be subject to CIO approval.

Management response:

Management agrees with this recommendation. The CIO will create the capability to register remote access solutions including their attributes and relationships across all City departments. A mechanism will be developed to track, monitor and approve changes to the solutions registered, by Q1 2019.

Recommendation #6

The City should take steps to strengthen its mobile device management including the implementation of additional technical security requirements and controls for remote access.

- [REDACTED]
- [REDACTED]

Management response:

Management agrees with this recommendation. The CIO will implement the appropriate controls [REDACTED] [REDACTED] for RAS connections. [REDACTED] [REDACTED] This will be completed by Q4 2019.

Recommendation #7

The City should evaluate and implement enhancements to their remote access security management and monitoring, including:

- [REDACTED] [REDACTED]
- Continuing to improve operational practices including vendor and employee account management and reconciliation.

Management response:

Management agrees with this recommendation. [REDACTED] [REDACTED] [REDACTED] Operational steps will be implemented to improve vendor account management and ensure reconciliation of accounts is maintained by Q4 2019.

Conclusion

Ottawa is a modern and connected city with growing dependencies on information and communication technologies. Protecting the City's network and critical technology infrastructure from unauthorized remote access is a crucial component of an effective cyber security strategy. As detailed in this report, the audit revealed a number of weaknesses and gaps which expose the City to a range of potentially significant risks to IT security, reliability and service delivery. [REDACTED] [REDACTED] [REDACTED] With the pace of technological change and the City's increasing dependence on remote access, it is imperative that the City fully responds to the recommendations in this report, and complementary recommendations in previous IT audits, in a timely manner.

Audit of IT Remote Access

Notwithstanding the identified issues and related risks referenced above, we acknowledge that the City has demonstrated a high level of remote access availability and has taken initiative to improve aspects of remote access controls, risk management and governance. This includes the development of a new information security standard that will help address ongoing concerns linked to the lack of central authority and responsibility for the management of remote access related risks.

Audit of the Management of the Lansdowne Contract

Purpose

The Audit of the Management of the Lansdowne Contract examined whether the agreements that govern the Lansdowne Partnership Plan are being managed efficiently and effectively in order to provide the City with the information it needs to meet its objectives for the revitalized Lansdowne Park. The audit examined the contract management practices and processes in the Recreation, Cultural and Facility Services (RCFS) department, which is responsible for day-to-day administration of the Lansdowne Partnership Plan agreements. The Audit of the Management of the Lansdowne Contract was included in the 2016 Audit Plan of the Office of the Auditor General, approved by City Council on December 9, 2015.

Background and rationale

Lansdowne Park is a historic venue in existence since 1847. It is a 40-acre City owned site that has been used as a facility for a variety of sports and entertainment events. Between 1888 and 2010, it was the location for the Central Canada Exhibition. Over the years, the condition of the facilities at the site deteriorated and became expensive for the City to maintain.

On October 12, 2012, City Council signed a limited partnership agreement with Ottawa Sports and Entertainment Group (OSEG) and others to redevelop the whole of the Lansdowne Park site. The Lansdowne Partnership Plan is a multi-year, multi-million-dollar project governed by approximately 50 legal agreements. (See Appendix B for a list and description of the major agreements.)

The project is public-private partnership. The City of Ottawa's *Public Private Partnership Policy* defines a Public Private Partnership (P3) as: *A contractual agreement between a public authority and a private entity for the provision of infrastructure and/or services in which:*

- i. The private sector participant assumes the responsibility for financing part or all of the project; and/or*
- ii. The City seeks to transfer risks that it would normally assume, based on the private sector participant's ability to better manage those risks; and/or*
- iii. The arrangement extends beyond the initial capital construction of the project.*

Audit of the Management of the Lansdowne Contract

The Lansdowne project redeveloped and/or repaired the Frank Clair Stadium and the Civic Centre, and constructed retail, office and residential areas at the site. A public, open space known as the Urban Park was created, which also includes the Horticulture Building and the Aberdeen Pavilion. The City is responsible for the Urban Park area.

OSEG operates the stadium, arena and parking garage and is responsible for the public areas throughout the retail and residential parts of Lansdowne Park. It is also the property manager for the maintenance and repair of the Urban Park area. There is a football team, hockey team and soccer team on-site.

Each year, the Lansdowne Partnership Plan Annual Report is presented to Council. The report includes a summary of the on-going exercise of delegated authority under the Lansdowne Partnership Plan legal agreements by the City Manager, City Clerk and Solicitor and City Treasurer. It reports on the annual Lansdowne Master Limited Partnership unitholder meeting and the annual Meetings Amongst Parties to Unanimous Shareholder Agreements. It also provides a status report on the operations of the Lansdowne Partnership Plan.

The annual Lansdowne Master Partnership meetings are the highest level of oversight for the Lansdowne agreements. The City is represented by the City Manager, the City Treasurer, and the City Solicitor, who have delegated authority to make decisions on behalf of Council.

Sound management practices are important to ensure that the P3 relationship is protecting the City's facilities and property and that activities are aligned with the City's vision of the redeveloped Lansdowne Park. This audit will also inform further improvements to the governance and oversight of the P3 relationship.

Findings

The audit focused on corporate governance and oversight, and provision of services under the contract agreements.

The key findings associated with each area are as follows:

1. Corporate Governance and Oversight

- a. The City's Recreation, Cultural and Facility Services (RCFS)¹ department has overall responsibility for Lansdowne Park. The Director, Community Recreation Core Programs is responsible for the Community Recreation Core

¹ Name of department after 2016 City reorganization.

branch. As part of the branch, the Lansdowne/City Hall Park Programs Unit (LPU) is responsible for programming in the Urban Park and management and oversight of the Ottawa Farmers Market (OFM) Licence of Occupation. RCFS can draw on other City departments to provide support for management of the Lansdowne agreements, as required.

The City does not have a comprehensive approach, document or tool to effectively monitor compliance to all provisions of the Lansdowne Partnership Plan agreements. Clear responsibility and accountability for monitoring of compliance by City staff has not been established. We found no evidence that some of the contract provisions were being monitored at all, and in some cases there was confusion as to who had the responsibility to monitor them. Of the 43 provisions we examined, 22 requirements were found not to be met (Appendix C for the agreements and articles reviewed).

A comprehensive tool or document would have been beneficial in determining whether or not OSEG was in compliance with all the requirements under the agreements.

- b. Overall, monitoring of the insurance provisions for the Lansdowne agreements is not in place. With the exception of the OFM Licence of Occupation, insurance certificates showing evidence of insurance coverage for agreement partners which are required to be provided under the various agreements have not been received nor requested by the City. Based on interviews conducted with departmental staff and OSEG, we found that there is a lack of clear understanding and accountability within the City as to who is responsible and accountable to monitor and review insurance provisions in contracts and agreements with third parties who provide services for, or on behalf of, the City.

There is a risk that the Lansdowne P3 partners are not maintaining insurance coverage as outlined in the agreements, which could have significant financial consequences for the City should an incident occur.

- c. We found that both City staff and OSEG lack awareness of certain reporting requirements in the Lansdowne agreements. More than half of the financial, operational and technical reporting requirements that we examined under the Master Limited Partnership Agreement, the Urban Park Property Management Agreement, the Master Site Agreement, and the Parking Structure Reciprocal Agreement have not been met.

In some cases, City staff and OSEG were not aware that reports are required to be issued. Had a comprehensive monitoring and reporting requirements document existed, awareness would have been improved.

- d. Trust accounts for Stadium and Parking Garage reserve funds have not been set up as required under the Stadium Lease and the Parking Structure Reciprocal Agreement. According to the current Life Cycle plans for the stadium and the parking garage, for five years beginning in 2015, OSEG is required to contribute \$1,427,250 annually into reserve funds for projected capital and repair expenditures over the next 30 years. Both the Parking Structure Reciprocal Agreement and Stadium Lease state that the reserve shall be maintained in a segregated trust account, for its intended purpose. Without dedicated trust accounts, there is a risk that funds that are meant to be used to maintain and repair the stadium and parking garage will be used for other purposes, and not be available for use when needed.

The money for the reserves has been deposited in OSEG's general bank account, and OSEG has not allocated interest earned on the funds to the reserve balances.

- e. The importance of an on-going Transportation Demand Management (TDM) program to promote alternative modes of transportation (e.g., public transportation, cycling, walking, etc.) as well as to monitor and minimize the impact of traffic and parking at, and surrounding, Lansdowne Park in particular during medium and large size events, was recognized during the approval process for the Lansdowne agreements. The Site Plan Agreement outlines the requirement for a dedicated TDM coordinator and a centrally located and publicly accessible TDM Office. However, a TDM office was not established, and effective January 1, 2017, OSEG no longer has a dedicated TDM Coordinator, thereby increasing the risk that the effectiveness of the TDM program may be negatively impacted.
- f. The revitalization plan for Lansdowne Park is a complex 30-year, \$300 million project between the City and OSEG and other parties for the redevelopment and operation of Lansdowne Park. As such, it is one of the largest projects that the City has undertaken. We found that the City has not established a risk management plan for Lansdowne Park operations to ensure that all risks are managed effectively throughout the life of the Lansdowne project.
- g. The responsibility for utilities at the Lansdowne site was not fully allocated to the proper owners and/or understood. The City has paid for the cost of utilities

for which they are not the end user. City management discovered the issue and is in the process of rectifying the situation for the future, as well as recovering the excess funds paid for water usage. Excess funds paid for natural gas have already been recovered.

- h. As the Lansdowne site moved from construction to day-to-day operations, the City did not have a transition plan, as required under its P3 policy. A transition plan could have been beneficial in establishing responsibilities and accountabilities for monitoring of the Lansdowne agreements, thereby reducing operational risk. The Project Management Agreement outlines post-construction phase deliverables. The audit team asked for evidence that these deliverables had been met, but no evidence was provided. A comprehensive monitoring and reporting requirements document would have shown that these contract deliverables were not provided.

2. Provision of Services under the Contract Agreements

- a. The City has established a good working relationship with its P3 partner based on a common focus, the co-location of services, and the ability to easily contact each other when necessary. Both OSEG and the City have offices on the grounds of the Lansdowne Park site where meetings occur with ease. We found that City staff can easily contact OSEG for discussion of all topics, including financial, event planning, shared services and property management.
- b. Ottawa Farmers' Market (OFM) revenues and utility cost recoveries do not comply with the OFM Licence of Occupation. A separate agreement to the licence was signed by a staff member who did not have sufficient authority under the delegation of authority by-law. The agreement reduced the rates for the 2015 indoor market by more than 50 percent, thereby reducing City revenue.
- c. With the separate agreement, the City stated it was prepared to absorb OFM heating costs for the 2014/2015 season only, with the intention to monitor to ensure that for the 2015/2016 season an actual cost recovery amount could be determined. We did not find evidence of monitoring to determine an actual cost recovery amount, or that the City is recovering all direct operating costs for utilities for the indoor market. The reduced rates in the separate agreement have continued to be used to charge the OFM for the 2016 and 2017 indoor market seasons.
- d. While the OFM is required to reimburse utilities costs for the outdoor market, we found no evidence of hydro and water costs being invoiced to or paid by

the OFM. We are unable to quantify the amount that should have been recovered.

- e. The Lansdowne agreements do not include a process to deal with issues that are not specifically covered in the agreements. The Lansdowne partnership agreements were written before the site was operational, and not all situations could be foreseen. However, the agreements could have included a process to deal with unforeseen or other issues that might arise from time to time. For example, the audit team reviewed a sample of eight invoices over the period October 2014 through December 2016 which totalled approximately \$70,000. These invoices remained unpaid as of the beginning of February 2017, as the City had not yet determined whether or not to pay them.

Conclusion

Overall, we found that the City's management of the Lansdowne Partnership agreements needs to be strengthened to ensure fulfillment of all contractual obligations. This was due in part to the lack of clear accountability and responsibility to ensure that reporting and other requirements of the Lansdowne agreements are being met, in part to a lack of supporting mechanisms to ensure compliance, and lastly in part to the informal, decentralized support responsible for oversight.

We found that the City has established a good working relationship with its Lansdowne project partner, the Ottawa Sports and Entertainment Group (OSEG). However, key requirements in the agreements were not being met. For example, reserve trust accounts had not been set up, insurance requirements had not been provided or reviewed, and reporting on the stadium and parking garage asset lifecycle requirements had not been fulfilled. In some cases, neither the City nor its partners were aware of the contractual requirements.

We also found that revenues from the Ottawa Farmers' Market rental fees and utility cost recovery were not consistent with the original agreement, and an improperly authorized side agreement was in place.

Lansdowne Park is the most significant public-private partnership ever undertaken by the City encompassing the vision for an accessible world-class park. One of the main objectives of this partnership was to minimize the capital and operating costs to the City. The achievement of this goal requires careful attention to the terms and conditions of the agreements affecting operations and maintenance, as well as, ensuring that the City's assets are maintained maximizing safety, reliability and availability. The

recommendations made in this report will support the ability of the City to meet its objectives, strengthen the compliance to the agreements by partners, and ensure that there is adequate oversight over quality of service and management of risk for this important City asset.

Potential savings

Potential savings identified in this audit include utilities costs which can be recovered and an area where revenues may be increased. The audit did not quantify these amounts due to a lack of information.

Recommendations and responses

Recommendation #1

That the City create a comprehensive document in order to effectively track and monitor compliance to all *Lansdowne Partnership Plan* agreements.

Management response:

Management agrees with this recommendation.

Legal Services is creating a comprehensive document to effectively track and monitor compliance to all Lansdowne Partnership Plan (“LPP”) agreements that are of ongoing relevance. The comprehensive document will outline the key details of all relevant LPP agreements and their interaction between those agreements in a matrix. The matrix will highlight the following: (1) important obligations and ongoing rights of all parties; (2) which party is responsible for fulfilling each obligation or enforcing each right; and (3) dates when each obligation must be fulfilled or when each right may be enforced.

Legal Services is also creating a supplementary document to inventory the number and high-level nature of all pertinent LPP agreements.

The General Manager of Recreation, Cultural and Facility Services (RCFS), or their assigned designate, is responsible for ongoing monitoring and ensuring that the above described documents are kept up-to-date.

Management expects that the foregoing shall be implemented by Q1 2018.

Recommendation #2

That the City verify that insurance policies as outlined in all Lansdowne Partnership agreements are in place.

Management response:

Management agrees with this recommendation.

Based on the comprehensive document created by Legal Services, a list of all insurance policies outlined in all relevant LPP agreements will be compiled. The General Manager of RCFS, or designate, will verify and ensure that all required policies are in place by Q2 2018.

Recommendation #3

That the City formally establish responsibility and accountability for monitoring insurance certificates on an on-going basis for the Lansdowne agreements.

Management response:

Management agrees with this recommendation.

The General Manager of RCFS, or designate, will use the list of insurance policies to request the relevant insurance certificates from the appropriate party/department as required. RCFS will also centrally track and retain these certificates on an-ongoing basis to ensure their validity.

Recommendation #4

That the City clearly establish responsibility and accountability including effective monitoring of compliance for reporting requirements for all contracts and agreements and confirm agreement with OSEG on relevant requirements.

Management response:

Management agrees with this recommendation.

Lansdowne partnership has been monitored through annual reports, operating dashboards and reporting checklists combined with scheduled quarterly meetings and regular check-ins. Additional meetings are held as required.

To supplement current monitoring, Legal Services is developing a comprehensive list of reporting requirements for all contracts and agreements related to the Lansdowne partnership that are of ongoing relevance. The General Manager of RCFS, or designate, will review the full list of reporting requirements with OSEG to

confirm a common understanding and agreement on those requirements. RCFS will monitor and track the relevant components centrally in conjunction with OSEG and the appropriate City departments responsible for the areas in question. This process will be established by Q2 2018.

Recommendation #5

That the City monitor progress against the lifecycle plans for the stadium and the parking garage.

Management response:

Management agrees with this recommendation.

The General Manager of RCFS, or designate, will request and obtain the lifecycle plans for the stadium and the parking garage each year and the General Manager of Planning, Infrastructure & Economic Development (PIED), or designate, will monitor the progress. Moving forward, PIED will receive, review and compare the proposed annual itemized work plan against the lifecycle plans as received from the OSEG Shared Services Manager, for the upcoming year. In case of any discrepancy, PIED will raise their concerns at the annual Owners' Liaison Committee meeting prior to the budget being approved.

Recommendation #6

That the City monitor the funding of the lifecycle reserves to ensure that they are funded as agreed.

Management response:

Management agrees with this recommendation.

Corporate Finance reviews the audited financial statements prepared by OSEG each fiscal year. As part of this review, Corporate Finance confirms the amount that has been put aside for the lifecycle reserves. This is reported as a separate line item on the financial statements. Corporate Finance can confirm that the correct amount has been reported in each of the prior years. Although these funds were reported and tracked separately, a separate trust account had not been set up for these funds and Corporate Finance should have requested evidence of those trust accounts. This will be completed by Q4 2017, including an annual review of the transactions in these accounts.

Recommendation #7

That the City take action to ensure that the trust accounts are set up, including appropriate interest allocation, as agreed in the *Stadium Lease* and the *Parking Structure Reciprocal Agreement*.

Management response:

Management agrees with this recommendation.

Corporate Finance will ensure that there are two separate trust accounts for the Stadium lifecycle reserve and for the Parking Structure lifecycle reserve by the end of Q4 2017. Corporate Finance will review the transactions in these accounts, including the inflows, outflows and interest earned. This review will be conducted annually as part of the Audited Financial Statement review.

Recommendation #8

That the City ensure that the contractual obligation is fulfilled with respect to having a dedicated TDM Coordinator and TDM Office accessible to the public.

Management response:

Management agrees with this recommendation.

The box office at Lansdowne has been designated and used by OSEG as the TDM Office. This office is accessible to the public and is a one-stop-shop for residents and visitors to address their Lansdowne transportation-related inquiries or issues.

OSEG continues to provide TDM support to the City for events, reports, inquiries, etc. with a part-time TDM Coordinator. The shift to a part-time TDM Coordinator was discussed and agreed upon at a meeting held in the spring of 2017 between OSEG and some City departments, including Transportation Services (TSD), PIED and Legal Services and was confirmed under the existing delegated authority of the General Manager PIED.

The TDM Coordinator will continue to assist in preparing the annual report and will participate in defining any adjustments to the TDM program that might be determined through the annual reporting. These reports will be submitted to TSD, who in consultation with RCFS, will review and sign-off.

Ongoing monitoring will occur and, if at any time it is felt that the operational needs and expectations are not being met as set out in the TDM program, RCFS in

consultation with TSD, PIED and Legal Services, will meet with OSEG to ensure that a full-time TDM coordinator is re-instated.

Recommendation #9

That RCFS establish an operational risk management plan for the Lansdowne Park Partnership and review it, at a minimum, every three years.

Management response:

Management agrees with this recommendation.

RCFS staff mitigate risk on an ongoing basis and work with OSEG regularly in this regard. RCFS will determine the scope required for a formalized Risk Management Plan for the Lansdowne Park Partnership by Q1 2018. This plan will be developed within the parameters of the City's Enhanced Risk Management Module, including establishing a timeline for the plan to be reviewed.

Recommendation #10

That the City continue to work with OSEG to ensure that responsibility for utilities at the site is resolved in 2017.

Management response:

Management agrees with this recommendation.

Both natural gas and electricity usage for the site have been reconciled. The isolation of water for metering purposes, has proved to be challenging as it has a direct impact on day-to-day site operations. Due to the major events planned on site as part of Ottawa 2017, the isolation of water and metering of water supply can only be completed by Q2 2018.

Recommendation #11

That the City review the P3 Policy, Procedures, and Guidelines to ensure inconsistencies are addressed and that they provide sufficient guidance to employees responsible for similar projects.

Management response:

Management agrees with this recommendation.

The P3 Policy, Procedures and Guidelines will be updated by Q2 2018 to ensure inconsistencies are addressed and that they provide sufficient guidance to employees responsible for P3 projects.

Recommendation #12

That the City ensure that future P3 projects adhere to the City's project management and P3 policies, and include a transition plan.

Management response:

Management agrees with this recommendation.

The City's management accountability framework identifies that General Managers, or their assigned designates, are responsible for ensuring adherence to the project management and P3 policies. The requirement to be compliant with these policies is ongoing, as is the responsibility to be aware of and adhere to, any revisions made to them as they arise.

Recommendation #13

That the City obtain all contract deliverables in accordance with the agreements.

Management response:

Management agrees with this recommendation.

The General Manager of RCFS, or designate, will review the list of contract deliverables for all contracts and agreements related to the Lansdowne partnership. RCFS will monitor and track the relevant components centrally in conjunction with OSEG and the appropriate City departments responsible for the areas in question. This process will be established by Q2 2018.

Recommendation #14

That the City implement a reasonable process to reconcile the number of OFM stalls per day to verify the revenue received under the agreement.

Management Response:

Management agrees with the recommendation.

RCFS has put a process in place to reconcile the number of OFM stalls per day. As part of this process, staff were made aware of the size of a standard stall (3m by 6m) for the outdoor market and how to record the number of stalls. On every market day, a reconciliation is done by City staff with a representative from the OFM, prior to invoicing. If any discrepancies are identified, they are discussed and resolved with the Ottawa Farmers' Market Manager.

Recommendation #15

That the City ensure that any amendments to the *OFM Licence of Occupation* are authorized by staff with the appropriate level of authority under the *Delegation of Authority* by-law.

Management Response:

Management agrees with the recommendation.

The Program Manager, Community Recreation Core Programs, RCFS, has reviewed the levels of delegated authority with staff on-site. Going forward, staff will be reminded of these levels whenever an agreement is up for negotiation or a new agreement is being drafted. All new full-time staff members joining the Lansdowne team will be required to review the Delegation of Authority by-law.

Recommendation #16

That the City establish a process to determine the amounts to invoice for recovery of utility costs from the OFM.

Management Response:

Management agrees with this recommendation.

The exact recovery of utility costs for the Ottawa Farmers' Market is not possible given the final as-built conditions of the site, and non-exclusive use of the space by the Ottawa Farmers' Market. Taking these factors into consideration, the City will discuss with OFM a flat fee charge to cover the costs for the outdoor market. This will be implemented by Q1 2018.

For the indoor market, the Ottawa Farmers' Market have been paying \$1,400 per day of use for occupancy-related expenses of the Aberdeen Pavilion. The City will reassess this fee based on utility usage this winter and review annually for increase in unit costs.

Recommendation #17

That the City determine a process to deal with situations that arise at Lansdowne Park that are not specific to the Lansdowne agreements, and which could have a financial impact on the City.

Management Response:

Management agrees with this recommendation.

The General Manager of RCFS, or designate, will develop a process to identify each partner's role as it relates to items that are not addressed within an agreement. If the item has financial implications affecting the multiple partners, the relevant parties shall attempt to resolve the issue through negotiation. This process will be completed by Q2 2018.

Audit of the Regulatory Framework for Light Rail Transit

Purpose

This audit was conducted to determine whether the City has developed and implemented a regulatory framework for Light Rail Transit which meets the requirements of the Transport Canada Delegation and is adequate, comprehensive and workable.

Rationale

The Light Rail Transit (LRT) project is a key part of the Transportation Master Plan and aims to make it more attractive and easier for residents and visitors to move through the city of Ottawa using transit. This \$2.1 billion project includes financial contributions from the Provincial and Federal governments.

The safety and security component associated with the LRT has been delegated by Transport Canada to the City. The City must develop, implement and enforce comprehensive regulatory frameworks for the safety and the security of the railway. This is the first time in Canada that a municipality has been assigned such responsibility. A review was required, given that the effective management of the regulatory framework is a matter of safety and security for Ottawa residents.

This audit is intended to give City Council assurance that the City has developed and implemented a regulatory framework for LRT which meets the requirements of the Transport Canada Delegation and is adequate, comprehensive and workable. The scope of this audit included any and all elements potentially encompassed by the Transport Canada Delegation Agreement. The audit is not to assess the LRT safety and security systems, rather the regulatory frameworks over these areas.

The audit team included a Subject Matter Expert (SME) in order to assess the appropriateness and adequacy of the regulatory framework. He has more than 15 years of diverse engineering and safety management experience, including hazard analysis and safety and security certification implementation.

Findings

The audit focused on three key areas which were selected based on risk:

- Completeness of **safety** regulatory framework and compliance with delegation agreement

Audit of the Regulatory Framework for Light Rail Transit

- Completeness of **security** regulatory framework and compliance with delegation agreement
- Procedures related to incidents

The key findings associated with each area are as follows:

1. Completeness of safety regulatory framework and compliance with delegation agreement

The audit found no gaps in the safety regulatory framework and that it was in compliance with delegation agreement.

A Regulatory Working Group was struck with the aim of developing the structure of the safety management framework and safety documents specific to the Confederation Line. Working Group members had extensive professional experience in light rail safety regulation as well as familiarity with industry standards and other light rail systems. An OC Transpo Safety Management System (SMS) Working Group incorporated the safety-related documentation developed by the Regulatory Working Group into an OC Transpo system-wide SMS. Our SME reviewed the structure and list of elements included in OC Transpo's SMS, and it is his opinion that all required elements for the system are captured.

Once the structure and list were complete, the development and review process for the content of the individual safety framework elements was comprehensive. It was designed to ensure that every element was reviewed by individuals from both the construction consortium, known as the Rideau Transit Group, O-Train Construction (formerly the City's Rail Implementation Office) and OC Transpo, when required. Comments and responses were documented, followed-up on and addressed via a formal tracking tool which captured all correspondence. All parties were required to sign off on completed documents prior to final acceptance of the element.

Once an element was formally accepted by OC Transpo, it was subject to further internal review of format and style for institutional consistency and training purposes. The specific internal process followed by any given element varied depending on its content and intended audience. This process was not standardized or clearly described, and the review details within OC Transpo were generally not documented. This creates a risk that the City would not be able to demonstrate that a proper internal review of the element took place, if required.

We were informed that OC Transpo consulted many sources during the development and review of the SMS elements, including but not limited to the American Public

Transportation Association's SMS Guidelines, Transport Canada's Railway Safety Management System Regulations, Transport Canada's Safety Management System Industry Guidance, the Canada Labor Code, the existing O-Train Trillium Line SMS and comparator operators in other North American municipalities. We were able to view a number of specific examples where the consultation of such sources was documented; however, this was not performed and documented in a structured or consistent manner.

We selected a sample of 15 elements from the safety framework and tested them for compliance with the delegation's requirement that they be based on industry standards. In all cases, we were able to clearly link the content of the element to at least one industry standard. These sources were not being tracked when the elements were being developed; however, OC Transpo was able to compile and provide us with sufficient documentation to demonstrate compliance for each element selected. In addition, the contents of 20 sample elements were reviewed by our SME who was of the opinion that the content of each was appropriate and consistent with industry practices.

We interviewed safety professionals from light rail operations in other Canadian municipalities, and they indicated that it is not common industry practice to specifically link safety regulation documentation elements to the sources consulted during their development. Our SME was also of this opinion. The employee within the City's Legal Services branch who was involved in drafting the delegation agreement advised that he did not believe the intention of the delegation was that every element of the framework necessarily be directly linked to its source documentation.

2. Completeness of security regulatory framework and compliance with delegation agreement

The audit found no gaps in the security regulatory framework and that it was in compliance with delegation agreement.

The audit found that the structure of OC Transpo's system-wide Security Management System (SeMS) is based largely on the existing OC Transpo SeMS for the Trillium line, which has been accepted by Transport Canada. The changes to security that are required for OC Transpo to transition from the existing transit system to one including the Confederation Line are relatively minor because security is generally not mode contingent. The development and review process for the updating of the SeMS began with a review of the existing elements as well as consideration of the requirement for new elements. This was done by a team including the Chief Special Constable and key OC Transpo staff. Our SME reviewed the structure and list of elements included in OC

Transpo's SeMS, and it is his opinion that all required elements for the system are captured. He did not identify any gaps.

We were advised that the Chief Special Constable sought out updates in industry standards and practices through discussions with colleagues in other municipalities among other approaches. Records of this process were not documented; however, interviews with equivalent staff in other municipalities demonstrated a culture of sharing of best practices within the community.

We selected a sample of 10 elements from the security framework to test compliance with the delegation's requirement that it be based on industry standards. For all 10 elements, we were able to clearly link the content of the element to at least one industry standard. The content of these samples was also reviewed by our SME who was of the opinion that the content of each was appropriate and consistent with industry practices.

1. & 2. Completeness of safety and security regulatory frameworks

While several light rail safety and security standards and frameworks are generally accepted in the industry worldwide, there is no one comprehensive set of criteria that serves as the ultimate authority. In addition, as no two light rail systems are identical or operate under identical conditions, only portions of such a framework are ever applicable to any given system. Discussions on this topic with OC Transpo and Legal Services staff and our SME confirmed this as an accurate description of the safety and security regulation environment in the industry. Consequently, while no gaps were identified, we are limited in the degree of assurance that we can provide on the completeness of the content of the SMS or SeMS. Significantly, this is not to imply however that OC Transpo's SMS or SeMS are incomplete.

3. Procedures related to incidents

The audit found that OC Transpo had significant and comprehensive documentation related to incident identification, classification and escalation policies and procedures and guidelines for incidents related to railway operation and maintenance. Our SME reviewed the relevant documentation and did not identify any gaps. Similarly, accident investigation assessment and reporting policies, as well as procedures and guidelines for response and recovery for potential accidents were found to be well documented.

Authorities and responsibilities for accident investigation, assessment, and reporting were clearly established and documented. Detailed protocols exist, and substantial effort is invested by OC Transpo into collecting incident data and using it to inform future actions to improve customer and employee safety.

Detailed testing of mechanisms in place to identify and address delays in delivery of the SMS and/or SeMS was not necessary as there is essentially no risk related to a possible delay in the delivery of the SMS and/or SeMS. The final training-ready version of the SMS is complete and was approved by the Chief Safety Officer and presented to OC Transpo senior management in April 2017 and has been in use for training since May 2017. At the time of completion of audit work, all SeMS content had been reviewed and approved by the Chief Safety Officer. As described by the Chief Safety Officer, the SMS is an evergreen document that will be continuously updated throughout its lifetime, and a working group is in place to perform this duty.

Conclusion

No areas of high risk or gaps related to the safety or security frameworks were identified in this audit. The development of the structure and content of the frameworks involved the contribution and oversight of many experienced professionals. Evidence was provided that a multitude of industry standards were also consulted throughout the development process.

While the reality of the regulatory environment of light rail means that it is not possible to provide assurance on the completeness of OC Transpo's safety and security frameworks, they were reviewed by numerous industry professionals to reduce the risk of omissions, and our SME did not identify any gaps.

Documentation surrounding incident and accident identification and investigation was found to be adequate and comprehensive. As the safety and security frameworks have been completed and approved as of completion of our audit field work, there is no risk of delay in their delivery.

Opportunities exist for the City to improve in the tracking and documentation of both the processes followed to develop safety and security framework elements, as well as of the sources consulted in their development. Such actions would facilitate future reviews and reduce the resources required to trace content to its source.

Recommendations and responses

Recommendation #1

That the City improve the tracking and documentation of the sources consulted during the development/review/updating of all safety documents which are subject to the delegation agreement.

Management response:

Management agrees with this recommendation.

The Safety and Compliance Branch within the Transportation Services Department will follow the document management program (referred to in the response to Recommendations 2 and 3) when amending/updating the SMS. This program includes processes for tracking and logging all sources consulted during the development of OC Transpo documentation, including the annual review and revision of the SMS. Each source utilized will be referenced and logged as each component, or supporting component, of the SMS is created or updated. This program is expected to be finalized by the end of 2017 and implemented in Q1 2018.

Recommendation #2

That the City document the high-level document development/review process to reflect the controls in place, defining each step in the process and the links between them.

Management response:

Management agrees with this recommendation.

A document management program is currently being developed by document control leads from Transit Operations, Transit Fleet Maintenance and Rail Operations within the Transportation Services Department, to incorporate/replace current OC Transpo document management procedures. The document management program will outline the responsibilities of managers, document authors and document control administrators during the development (writing and research), review, revision, approval, communication, distribution and record keeping of OC Transpo documents. The document management program will ensure that controls are in place, define each step in the process, and the links between them. This program is expected to be finalized by the end of 2017 and implemented in Q1 2018.

Recommendation #3:

That the City improve its documentation of the review process for the development/review/updating of all security documents which are subject to the delegation agreement.

Management response:

Management agrees with this recommendation.

A document management program is currently being developed by document control leads from Transit Operations, Transit Fleet Maintenance and Rail Operations within the Transportation Services Department, to incorporate/replace current OC Transpo document management procedures. The document management program will outline the responsibilities of managers, document authors and document control administrators during the development (writing and research), review, revision, approval, communication, distribution and record keeping of OC Transpo documents. This program is expected to be finalized by the end of 2017 and implemented in Q1 2018.

The development/review/updating of all security documents will follow all processes outlined in the OC Transpo document management program.

Audit of Road Services Branch – Contract Management

Purpose

The audit examined the management of the Roads Services branch's non-winter contracts.

Rationale

The City of Ottawa Road Services branch (RSB) within the Public Works and Environmental Services department (PWES) is responsible for operations and maintenance of the City's street, sidewalk, walkway and trail system. The City has approximately 5,661 km of roads, 2,195 km of sidewalks and 233 km of Transitway and Highway 174 to maintain.

The focus of this audit is RSB's non-winter operations including:

- Roadway maintenance (asphalt repairs including pothole repair, sweeping, ironworks adjustments, shoulder maintenance)
- Right-of-way maintenance (grass cutting, graffiti removal, litter baskets, drainage and roadway cross culvert repairs, guide rails)
- Sidewalk/pathway maintenance (sweeping, concrete repairs, bus pad repairs, decorative brick repairs)

Major road, bridge and sidewalk rehabilitation and renewal activities are carried out by and are the responsibility of Infrastructure Services and are not included in the scope of this audit.

The City's 2016 budget for Roads Services non-winter operations was \$31.5 million, and expenditures were \$31.8 million (see Table 1 below). Services are delivered from 17 yards spread across five zones in four geographic areas and use both City crews and contractor crews. There are approximately 520 employees in RSB.

Table 1: Non-winter operations (in millions)

Cost element group	Budget	Actual
Labour (City)	\$17.3	\$18.2
Material	4.4	3.6
Internal equipment (and services)	6.7	6.9
External contracted services	3.1	3.1
Total	\$31.5	\$31.8

The focus for this audit is material (used by City and contracted crews) and external contracted services and the related City supervision.

The City supervises both City crews and contractor crews. Contracts specify which materials are to be supplied by the City and those that are to be supplied by the contractor. City supplied materials are provided either from inventory stored in City yards or via direct deliveries to job sites from asphalt plants and gravel pits.

Findings

The audit focused on processes, practices and controls in four key areas which were selected based on risk:

- Ensuring contractors delivering the goods and services they are contracted to provide in the manner specified in the contract
- Selecting the correct contractor
- Use of warranties where re-work is required
- Efficiency of processes

The key findings associated with each area are as follows:

1. Ensuring contractors delivering the goods and services they are contracted to provide in the manner specified in the contract

The audit focused on material quality (e.g. asphalt, gravel, concrete), processes and procedures for identifying unsatisfactory work, the quantity of contractor work performed and billed, calibration of contractors' weigh scales for materials and controls over materials.

In 2016, RSB purchased \$1.4 million of gravel and \$845,000 of asphalt. RSB uses asphalt for milling and paving jobs and asphalt patching jobs that are generally less than 200 square metres and for pothole repairs. The audit found that the City is not testing the asphalt being used by RSB in its non-winter program. We had two asphalt samples from different suppliers tested; and in both cases, they did not meet the specifications defined in the contract. While this is a very small sample size, a 100% failure rate is concerning. Using poor asphalt can compromise the quality and longevity of City road repairs. RSB did recently test a sample of the asphalt used in its 2016-17 winter operations. This sample also did not meet the contract specification, supporting a decision to re-tender that contract.

The OAG acknowledges that testing asphalt can be both complicated and expensive with laboratory costs of roughly \$3,000 per sample. However, not conducting any tests means that there is no assurance that the asphalt being purchased by the branch meets the City's specification. These findings do not apply to Infrastructure Services branch (ISB) which uses significantly more asphalt than RSB and although we did not review it as part of this audit, they have an asphalt testing program in place. RSB and ISB management also indicated that the asphalt grades being purchased by RSB will be reviewed and that part of the problem may be the type of asphalt that the City is requesting.

The audit found that RSB has processes in place to establish if a supplier is able to supply gravel (also known as granular material) that meets the City's standard. The processes also address situations where the quality of gravel supplied deviates from the standard.

The audit expected to find a process in place to identify unsatisfactory work. This includes determining whether the contractor was using appropriate construction methods and delivering the specified goods and services in accordance with the terms of the contract. The audit found that overall these processes are adequate although improvements can be made. We visited five worksites and interviewed a cross-section of RSB staff, supervisors and managers. We found that experienced City supervisors are assigned to oversee the work of contractors and inspect road repair work and where a supervisor is not available, another RSB employee is assigned to inspect the work. The process includes sign off of the contractor's work by a supervisor on the paper Maintenance Activity Sheets (MAS) and supporting contractor ticket(s). Details regarding unsatisfactory work are to be documented in the City supervisor's notes. Supervisors escalate issues up through their chain of command. We did find that the degree of detail in supervisor's notes varied.

The audit expected to find that the City verifies the quantity of work done by contractors. This would include estimating appropriate measurements for the job in advance, verifying the quantity done and confirming that the correct quantity has been billed. This would help ensure that contractors are only performing and billing the amount of work that the City requires.

The audit found that there are established practices for quantifying work; however, they vary across the yards and were not always adequate to document planned work in advance or to compare to work completed and billed. The audit also found that MAS and job tickets used as evidence of work completed were not always adequate to support payment for services.

For asphalt repairs, which include pothole repairs and paving, the contractor provides a handwritten job ticket at the end of the call-up shift to reflect the work completed. This ticket contains the quantity (i.e. hours or surface area as per the applicable standing offer) and is signed off by a City supervisor. Although the standing offer indicates that invoices are to be provided, in practice, the contractors only provide the job ticket.

Most of the daily event tickets/job tickets that we reviewed were missing some of the information required by the standing offer such as the vehicle license number, operator's name or operator's signature. The supervisor signing off then records the work and quantity from the job ticket onto the MAS. Payments are then made based on the MAS and not the job tickets or invoices. Although there is a reconciliation process in place, given the manual paper based processing, errors will occur which could result in incorrect payments being made to contractors. We found minor errors with each of the five sample worksites we visited. Processes related to MAS and the associated tickets generally need improvement. Efficiency issues related to MAS processes are addressed below.

The audit expected to find that supplier weigh scales are properly calibrated for asphalt and gravel which the City purchases based on weight. Accurate scales help ensure that the City pays only for the materials that it receives because as is common industry practice, the City does not re-weigh the materials once they are taken from the supplier. The contract for gravel requires suppliers to provide a "Government of Canada Certification of True Weights" for its weigh scales. The accuracy of weight and measurement devices is federally regulated under the Weights and Measures Act.

The City's gravel contracts state that suppliers should provide a certificate of true weights on the 15th of each month. However, we found that suppliers were not providing these certificates and the City was not following-up. We asked RSB to

request certificates from suppliers. Out of 25 scales used by suppliers of asphalt and gravel, two did not have a current calibration certificates and another six scales, had certificates that were issued after the expiry of the previous certificate. Given that we found that not all suppliers were diligently obtaining their calibration certificates, more City oversight is warranted.

The audit expected to find adequate controls to prevent theft and waste of materials purchased by RSB. This includes ensuring that job estimates for materials are accurate and that leftover materials, whether used or new, are returned to the City and not used by the contractor on other non-City sites. The audit found that the controls to protect ironwork materials (catch basins, catch basin covers, etc.) from theft could be improved. Ironworks materials removed from inventory are not properly tracked. This has resulted in unexplained differences in inventory that could be due to error, waste or theft.

In 2016, the City purchased approximately \$590,000 of ironworks materials. Ironworks materials unlike gravel and asphalt materials are generally not used the same day that they are purchased. These materials are also not always used the same day that they are removed from inventory in the yards. Controls over ironworks supplied to contractors were also called into question by a Fraud and Waste Hotline report that the OAG received in 2016. The reporter provided pictures of new “Ottawa” branded storm water covers in a commercial parking lot. The resulting investigation was unable to determine if the ironwork was purchased from a foundry or if a City contractor took it out of a City yard and diverted it to the site.

Generally, there is reliance on supervision, and honesty to ensure that ironworks taken from the City yards is used on City jobs or returned. Staff indicated that ironworks taken by contractors is monitored; however, materials withdrawn by City crews are not. RSB staff at the three yards we visited use their own methods to monitor inventory. OAG completed a physical inventory count on a sample of seven different types of ironworks items in mid-June 2017. We found that there were 207 units missing compared to the financial record with an estimated value of \$22,500. This amounts to roughly 40% of the value of this type of ironworks material that should have been at the yard at that time according to the financial records.

The audit also expected to find that recovered components (used materials) such as maintenance covers and metal and concrete frames are salvaged and returned to the City for future use or recycling as required. The audit found that scrap iron is being recycled by City yards and controls are adequate.

2. Selecting the correct contractor

The audit focused on ensuring the low-cost contractor is selected, that contractors are not selected if they have performed deficient work in other areas of the City, taking advantage of prompt payment discounts and conflicts of interest.

RSB uses contractors pre-selected through the competitive standing offers and tender processes. For each of the six standing offers/tenders that we reviewed, suppliers are ranked for each specific type of work by each geographic area and RSB's procedure is to select contractors based on this ranking. We found instances where the highest ranked contractor was not selected and the reason, such as the first contractor not being available when RSB required the work to be done, was not documented.

Although it is not required under the standing offers/tenders, we believe it is important to explain why a more expensive contractor is selected.

The audit expected to find that the City has a process to confirm that contractors are not selected if they have performed deficient work in other areas of the City. Supply Services manages the process where suppliers are barred from bidding on City work. Unless the contract has been terminated, or the supplier has been barred, there is no basis for RSB not to use a contractor.

The audit found that the City normally takes advantage of prompt payment discounts offered by RSB vendors. However, we did observe cases where PPDs were not taken advantage of, costing the City approximately \$2,200.

The audit expected to find that RSB has a process to minimize the risk that its staff are not in conflicts of interest. RSB staff are issued memos twice per year reminding them of their responsibilities including those under the Employee Code of Conduct which requires written disclosures of potential Conflicts of Interest. Management indicated that there are no current disclosures of conflicts of interest.

3. Use of warranties where re-work is required

The audit focused on how RSB identifies and uses warranties where they are available. The audit expected to find that RSB processes ensure that the City is not expending internal or external resources for work that is covered under a warranty. The RSB's contracts include a one-year warranty period unless otherwise stipulated. Work done under a road cut permit has a three-year warranty. We found that to determine whether or not a job might be redoing work that was done within a warranty period, the practice is to informally rely primarily on the knowledge and experience of staff. We found RSB staff to be very familiar with their areas and as such this approach is reasonable.

Technically, pothole repairs contracted under the Standing Offer for Unscheduled Asphalt Repairs also have a one-year warranty period. However, in practice City supervisors treat pothole repairs as having no warranty. The OAG concurs that this approach is reasonable. There are many factors that can impact the life of a pothole repair such as traffic volume, drainage issues, the condition of asphalt around the pothole. As there are more than 150,000 pothole repairs per year, many of which are done by City crews, there is no cost-effective mechanism to track them individually. However, the lack of an effective warranty is inconsistent with the terms in the standing offer; and some contractors may have considered a pothole warranty in their bid submission decisions.

4. Efficiency of processes

The audit focused on RSB's processes to manage its contracts. As mentioned above, RSB's processes are generally paper heavy and manual. MAS are manually prepared, approved, matched to paper vendor job tickets and filed. Additional work is created when the operations clerks have to resolve errors or incomplete paperwork. RSB is not using mobile systems in the field as is done in other parts of the City. Management indicates that there is an active PWES Mobility Project and it intends to implement it in all operational areas of PWES including RSB. However, there is currently no approved schedule to commence and complete implementation in RSB.

Conclusion

Overall, we found that key systems, practices and procedures are in place to manage Roads Services branch contracts.

Contractors performing road work are being adequately monitored, by an employee designated to monitor the work and/or a supervisor conducting inspections. However, we did note a lack of procedures for work inspections. As well, practices to quantify the work were not consistently applied and were not formally documented and approved. This impacts the ability to subsequently check that the required quantity of work was done and billed.

We found that practices to ensure that the City receives the quantity and quality of asphalt and gravel it is ordering and paying for need to be improved. The quality of asphalt was unacceptable in the two samples we had tested, and RSB has not done its own testing in a number of years. Similarly, RSB is not obtaining contractors' weigh scale calibration certificates, and there were issues with some of the ones that we subsequently obtained. Tracking ironwork held as inventory also needs to be improved.

RSB uses standing offers for its contracted road work. We observed many instances when the number one ranked (i.e. lowest cost) supplier was not used to conduct the work. There can be valid reasons for this; such as, the number one supplier not being available; however, RSB staff do not document these reasons.

Lastly, we found that RSB's processes could be more efficient. Processes are paper heavy and manual. Implementing planned mobile automated systems, such as those used in the field by other City departments, could streamline processes if cost effective to do so.

Recommendations and responses

Recommendation #1

That the City establish and implement a testing approach for asphalt materials to ensure that the quality of asphalt purchased by RSB meets the City's specifications.

Management response:

Management agrees with this recommendation.

Roads Services has engaged Infrastructure Services' Quality Assurance and Standards Unit to begin discussions regarding appropriate testing procedures for asphalt quantities and specifications required by Roads Services.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018.

Recommendation #2

That the City establish a procedure for RSB supervision and inspections of contracted work that provides direction on the factors to inspect and the documentation required.

Management response:

Management agrees with this recommendation.

Management will formalize existing practices and procedures, which will include documentation and inspection requirements.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018.

Recommendation #3

That the City ensure that Road Service supervisors overseeing contracted jobs confirm that contractors are fulfilling requirements as outlined in the contract including Traffic Control Plans and road cut permits, or amending the contracts' terms and conditions as appropriate.

Management response:

Management agrees with this recommendation.

Staff will undertake the review of all contract terms and conditions to ensure they accurately reflect work requirements. In addition, a checklist will be created for Roads Services supervisors to confirm contractors are fulfilling all contract requirements.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018 or upon extension, renewal or expiry of existing contracts.

Recommendation #4

That the City formalize and retain documentation of the quantity work to be done (i.e. approved job estimates).

Management response:

Management agrees with this recommendation.

Roads Services staff will establish a process for receiving cost and time estimates for each job when a contractor is pulled from the Standing Offer List.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018.

Recommendation #5

That the City ensure:

- a. that contractors are providing the required invoices and information on daily event tickets (job tickets) as required by the contract (standing offer) or modify the contract; and
- b. that the procedures and practices for handling job tickets are consistent.

Management response:

Management agrees with this recommendation.

Management will ensure contractors are providing the required invoices and information on daily ticket events as required or modify the contract. Management will also ensure that the practices for handling job tickets are consistent and communicated on a regular basis.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018.

Recommendation #6

That the City ensure that contractors are providing the required service that they have contracted for (i.e. three-person crews, supplying materials).

Management response:

Management agrees with this recommendation.

A checklist will be created for Roads Services supervisors to confirm contractors are fulfilling all contract requirements.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018.

Recommendation #7

That the City ensure that MAS are properly reviewed and approved and contain accurate, complete and clear information to support payment of services.

Management response:

Management agrees with this recommendation.

Management will ensure that the procedures and practices for reviewing and approving maintenance activity sheets are consistent and communicated on a regular basis.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018.

Recommendation #8

That the City monitor gravel suppliers to ensure that they provide Government of Canada Certification of True Weights for the weigh scales as required per the contract.

Management response:

Management agrees with this recommendation.

Staff will undertake the review of all contract terms and conditions to determine if proof of certification is required. Weight and measurement devices are federally regulated under the Weights and Scales Act, which includes the approval and inspection of such weight and measurement devices. Under the legislation, owners and users are legally responsible for the accuracy of their weighing and measurement devices.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018 or upon extension, renewal or expiry of existing contracts.

Recommendation #9

That the City review the requirements for certification of weigh scales in the next asphalt contract and ensure that it clarifies how suppliers will confirm that their scales are calibrated.

Management response:

Management agrees with this recommendation.

Staff will undertake the review of all contract terms and conditions to determine if proof of certification is required. Weight and measurement devices are federally regulated under the Weights and Scales Act, which includes the approval and inspection of such weight and measurement devices. Under the legislation, owners and users are legally responsible for the accuracy of their weighing and measurement devices.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018 or upon extension, renewal or expiry of existing contracts.

Recommendation #10

That the City update procedures for RSB inventory management to track materials removed from inventory.

Management response:

Management agrees with this recommendation and has implemented a standardized form across the yards.

Roads Services are reviewing best management practices around the management of materials, which will support the development of a new process.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018.

Recommendation #11

That the City reinforce application of RSB's annual inventory reconciliation procedures to better identify and address the cause of discrepancies in inventory.

Management response:

Management agrees with this recommendation.

Roads Services are reviewing best management practices around the management of materials, which will support the development of a new process that strengthens inventory reconciliation procedures.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018.

Recommendation #12

That the City implement procedures to document the RSB decisions when choosing other than the first ranked contractor.

Management response:

Management agrees with this recommendation.

Roads Services staff will work with Supply Services to create a tailored process when administering call-ups.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018.

Recommendation #13

That the City properly setup Purchase Orders and Equipment Orders in the financial system to automatically take the prompt payment discounts (PPD) that RSB Contractors have offered as part of their bid submission.

Management response:

Management agrees with this recommendation.

Staff are trained to ensure payment terms are correctly entered at the time of PO/EO creation in accordance with the SAP PO/EO creation Business Process Procedure. In order to further ensure payment terms are correctly identified for lower dollar value purchases, Supply Services has created Departmental Purchase Order (DPO) procedures for staff that award contracts less than \$15K. The procedures specifically identify the requirement to input prompt payment discount terms into SAP. Subsequent training to staff was also provided by Supply Services to ensure staff were made aware of this requirement.

Any incorrectly identified PO and EO payment terms have now been updated to reflect the correct prompt payment discount terms. In terms of the missed discount opportunity of \$1,000, this represents 4% of the total available discounts for Roads Services contracts and therefore 96% of discounts were correctly received.

Recommendation #14

That the City make the pothole repair warranty provision in the Standing Offer for Unscheduled Asphalt Repairs consistent with actual practice in its next tender.

Management response:

Management agrees with this recommendation and will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018 or upon extension, renewal or expiry of existing contracts.

Recommendation #15

That the City review the costs and benefits supporting the business case for implementing a mobile automated solution in RSB.

Management response:

Management agrees with this recommendation.

The Public Works and Environmental Services Mobility Project is an active and ongoing project that seeks to automate current manual work processes.

Management is committed to continuing this work, including within Roads Services as resources permit. In advance of any scheduled work, management will review

the costs and benefits supporting the business case for implementing a mobile automated solution in Roads Services.

Management will develop a project plan for all recommendations to be completed by Q1 2018, with full implementation of all initiatives by the end of 2018.

Report on the Audit of the Emergency Preparedness and Response for Health Services – Operational Review

Background

The 2016 Office of the Auditor General's (OAG) Audit Work Plan includes an "Audit of the Emergency Preparedness and Response for Health Services - Operational review". While the focus of our audit work was on Ottawa Public Health (OPH), it was considered and assessed in the context of integrated Emergency Management for the City as a whole.

An Emergency Management Program is a jurisdiction-wide system that provides for management and coordination of prevention, mitigation, preparedness, response and recovery activities for all hazards. The system encompasses all organizations, agencies, departments, entities and individuals responsible for emergency management and security for that jurisdiction¹.

Emergency management in Ottawa involves a large number of agencies at all levels of government, as well as numerous non-governmental organizations. While various agencies involved have specific and unique requirements in emergency management, initiatives must be well coordinated and cannot be developed in isolation from the City of Ottawa Emergency Plan.

Scope and objectives

The overall objective of this audit was to conduct an assessment of OPH's emergency management and response activities. The audit was to include an assessment of processes used to develop, monitor and report on emergency management.

The sub-objectives would be to:

- Assess OPH's emergency management program planning activities and preparedness against established standards and norms
- Assess OPH emergency management plans to maintain continuity of operations in the case of a major event (pandemic/natural disaster)

¹ Definition from the Emergency Management Accreditation Program (EMAP). EMAP is a US-based independent non-profit organization that reviews emergency management and homeland security programs. www.emap.org

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- Assess OPH plans in relation to completeness, coordination and best practices
- Assess OPH planning oversight and review

Approach and methodology

During the planning phase of any audit engagement, auditors obtain background information relevant to the entity. Using this information, auditors conduct a preliminary assessment to become familiar with the activities, processes, risks and controls in place within the entity to determine areas of audit emphasis. Through inquiry and documentation review, auditors assess the adequacy of documented policies, plans and procedures currently in place.

As per the Institute of Internal Auditors (IIA) Practice Advisory 2201-1, the intention of the preliminary assessment is to identify and prioritize areas of elevated risk that warrant further attention in the examination phase of the audit.

In order to assess risks associated with OPH emergency management, the following activities were completed:

- Review of OPH and City's Emergency Management Program (EMP) policies, plans and procedures including those related to business continuity and disaster recovery;
- Conduct of preliminary interviews with key personnel in OPH and the City's Security & Emergency Management (SEM) branch;
- Analysis of existing independent third-party reviews of both OPH and City of Ottawa Emergency Management Programs; and
- Review of other relevant documentation.

Using the information gained in the preliminary assessment, risks and related controls were identified and described through risk statements. Next, based on the analysis of the mitigating controls in place, a rating of inherent risk was determined for each identified risk. The result of this preliminary work was summarized in a detailed Risk Assessment.

To ensure the quality of our risk assessment, we utilized the services of a subject matter expert (SME) as part of the preliminary work to gain insight into the risks and challenges related to emergency management. Our expert has 28 years of diverse experience in Canada's emergency management, national security and intelligence community. She held three positions at the Deputy Minister level – as Deputy Secretary (Security and

Report on the Audit of the Emergency Preparedness and Response for Health Services – Operational Review

Intelligence) in the Privy Council Office, Associate Deputy Minister in the Department of National Defence, and Special Advisor on Security at Transport Canada. During her public service career, she undertook many significant emergency management assignments. Our SME experience related to emergency management was a crucial part of the review and analysis of the key aspects of the OPH emergency management program.

Identified risk areas

Eight risks were identified as part of our preliminary phase of audit work. These addressed the work of the City's Emergency Management Program's Steering Committee and Advisory Committee, SEM branch as well of OPH. The risk areas reviewed were:

- Clear governance, oversight and direction
- Compliance with legislation
- Clarity of roles, responsibilities and delegations
- Identification of emergency situations
- Formal emergency management plans
- Coordination between OPH, EMP Advisory Committee and SEM and external partners
- Preparedness of participants for emergency response, including monitoring and evaluation of performance and provision of training
- Preparedness of OPH to maintain public health services to residents while responding to and recovering from emergencies that disrupt normal operations

Key findings

1. Clear governance, oversight and direction

The City's Emergency Management Program Steering Committee (of which OPH is a member) establishes a strategic and operational framework based on the Ontario Emergency Management and Civil Protection Act, the Ottawa Emergency Planning and Responses By-law and the Emergency Management Accreditation Program.

The Steering Committee is supported by the Emergency Management Program Advisory Committee. This committee meets monthly and includes many of the same members, as well as external members such as Ottawa Police Service, Ottawa Hospitals, United Way (2-1-1), Red Cross and Salvation Army.

Report on the Audit of the Emergency Preparedness and Response for Health Services – Operational Review

The OPH Emergency Management Policy addresses governance through describing the responsibilities of the OPH Executive Team as well as those of the Board of Health, the OPH Emergency Management Committee, and teams, branches and staff with specific operational roles.

2. Compliance with legislation and regulations

- The ***Ontario EM and Civil Protection Act (1990)*** requires all municipalities to develop and implement an EM program consisting of an EM plan, training program, exercises and public education as well as infrastructure to support EM responses. The 2015 *City of Ottawa EM Plan* in turn assigns EM-related coordination responsibilities to specific City departments; for example, making OPH/Medical Officer of Health accountable for coordinating the response to public health emergencies determined to be a health hazard or the result of communicable disease.
- We can confirm that OPH has a comprehensive and up-to-date EM program that appears to encompass the elements set out in the *Emergency Management and Civil Protection Act*, and Accreditation Canada (AC)² concluded that OPH has a “robust EM program”.
- The ***Ontario Health Protection and Promotion Act (1990)*** provides legal authority for Boards of Health to respond to public health emergencies. Based on our document review, the Ottawa Board of Health and the Medical Officer of Health appear to be directly engaged in the OPH emergency management program and in the responses to public health emergency situations.
- The ***Ontario Public Health Standards (2008)*** set mandatory health programs and services to be provided by Boards of Health. The OPH Emergency Plan appears to address the requirements designated by the Ministry of Health and Long-Term Care (MOHLTC) in the Ontario Public Health Standards (OPHS).
- The ***Ontario Public Health Preparedness Protocol (2015)*** provides direction on how Boards of Health must operationalize the *Public Health Standards*, including specific requirements relating to emergency response and continuity of operations plans. Our work determined that the documentation developed to operationalize plans was well developed for OPH, including continuity of operations plans.

² AC is an independent, not-for-profit organization that has been accrediting health organizations since 1958, including more than 1,000 organizations representing over 7,000 sites and services across Canada.

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The Ontario Office of the Fire Marshall and Emergency Management (OFMEM) has formally confirmed that the City is in compliance with the Emergency Management and Civil Protection Act (EMCPA) and its associated regulation, Ontario Regulation 380/04 for 2015 (dated March 2, 2016). The source of assurance is self-assessment and reporting by the City subject to OFMEM review of the documents submitted. This is the same process for all municipalities in Ontario.

Ontario municipalities are not obliged to comply with Canadian Standards Association Standards Z1600-14 Emergency and Continuity Management Program and Z731-03 Emergency Preparedness and Response. However, these are well-respected benchmarks in the Canadian EM community. The OPH Emergency Plan includes these two CSA standards on a list of provincial and federal legislation with which the Plan complies.

3. Clarity of roles, responsibilities and delegations

The City's Emergency Plan spells out roles and responsibilities of emergency support functions including who the single lead is for each situation and which players are coordinators or supporters. The Emergency Plan identifies OPH as responsible for “providing leadership, coordination and oversight” for the Public Health function and to coordinate the provision of public health in the municipality.

The OPH Emergency Management Plan appears to be complete, up to date and aligned with the City of Ottawa's Emergency Plan and best emergency planning practices. It is a gateway to supporting detailed plans related to extreme weather, chemical-biological-radiological-nuclear events (CBRN) and northern evacuations, etc.

We found the OPH EM Policy to be clear, concise and comprehensive in terms of setting the broad goals, parameters and elements of the OPH EM Program, as well as the responsibilities of the Executive Team, the Ottawa Board of Health, the OPH EM Committee, the Health Emergency Preparedness and Response Team, OPH branches, on-call staff and all OPH staff.

The Emergency Management Program Response escalation level guidelines provide a clear and well-defined escalation mechanism and make it clear that the City's Emergency Operations Centre Control Group (EOCCG), of which the Medical Officer of Health is a member, has final decision-making authority in the event of an emergency.

4. Identification of emergency situations

OPH participates in the City EMP annual Hazard Identification and Risk Assessment (HIRA) to identify those natural, technological and human-caused hazards that pose greatest risk to the city based upon frequency and consequence.

In the view of our SME, the City of Ottawa and OPH are at the leading edge in terms of their work in the surveillance and assessment of relevant hazards and risks. The OPH Emergency Plan sets out a detailed list of 11 surveillance methods, the surveillance data to be provided in each case, and the units responsible for maintaining surveillance. On its part, the City employs a sophisticated, best-in-class process that identifies and ranks potential hazards using a qualitative risk analysis methodology that considers probability, consequence and the organization's capability to respond. OPH is an active participant in this annual process.

5. Formal plans supporting the delivery of emergency services

As a standard of formal plans developed by OPH, the SME described the 2014 Ottawa Interagency Influenza Pandemic Plan as "professional, clear, thorough and user-friendly" which demonstrates that plans are in place to support delivery of emergency services. Additionally, the City of Ottawa EM Plan requires the OPH Service Duty Officer to be available to respond on a 24/7 basis and a roster is in place for other on-call staff. OPH has operationalized this requirement in its 21-page On-Call Guide dated June 2016.

6. Coordination between OPH and EMS and external partners

Numerous committees, as noted earlier, are in place within the City as well as OPH with clearly documented mandates, roles and responsibilities related to emergency management. These committees allow for City-wide emergency planning and coordination and include other levels of government as well as non-governmental entities such as utility and communication service providers.

OPH's 2016 Accreditation Canada accreditation report found that "the organization's emergency preparedness plans are aligned with the City of Ottawa and with those of other community partners such as hospitals". The City is a member of the Hospital Emergency Preparedness Committee of Ottawa.

It was evident to auditors that key OPH and SEM staff maintain excellent paths of communication and collegial relationships and that all players recognize respective roles and responsibilities and share a common understanding of emergency

preparedness within the city. This was corroborated in meetings with members of SEM and OPH.

7. Preparedness of participants for emergency response, including monitoring and evaluation of performance and provision of training

A simulation training event is performed every year by the City's Office of Emergency Management. The City is planning a full-scale emergency preparedness training exercise for May 2017, and OPH is a participating organization. Additionally, in 2016, OPH held four table-top exercises on emergency preparedness.

Following every incident requiring initiation of enhanced operations at OPH, an After Action Report is composed that describes the incident, the actions taken, the outcome and any recommendations to improve responses to future incidents and ensure that lessons learned are incorporated into plans. A Quality Improvement Register actively tracks progress on all recommendations emanating from After Action Reports.

8. Preparedness of OPH to provide public health services to residents while recovering from emergencies that disrupt normal operations

The OPH Continuity of Operations Plan supports the decision making required to maintain "core critical services" when normal operations are disrupted; for example, during an epidemic, power outage or earthquake. It identifies staff available for re-deployment to core critical services or emergency response. The OPH Emergency Plan provides guidance not only on immediate recovery, but also on the associated activities of demobilization, debriefing, reporting and quality improvement processes.

In the view of the SME, OPH continuity of operations and recovery plans are comprehensive, well organized, aligned with City and partner plans/responsibilities and cover the full range of activities that need to be taken to maintain critical services during disruptions of normal operations and/or following the activation of an emergency response.

Summary/conclusion

Based on our document review, research and interviews, the OPH EM program meets or exceeds relevant requirements and standards in all key areas. We have found that the program is up-to-date, comprehensive, managed professionally and appears to be aligned with the City of Ottawa's umbrella EM program and those of key external

Report on the Audit of the Emergency Preparedness and Response for Health Services – Operational Review

partners. The September 2016 Accreditation Canada report reached similar conclusions.

The City has also achieved accreditation of its disaster preparedness program through the Emergency Management Accreditation Program (EMAP). EMAP, an independent non-profit organization, fosters excellence and accountability in emergency management and homeland security programs by establishing credible standards applied in a peer review accreditation process. It has accredited the emergency management programs of numerous states, counties, municipalities and major universities in the USA; and Ottawa is the only municipality in Canada to have obtained this accreditation.

Based on the work performed by the OAG and the opinion of the SME, the residual risk levels of the above-noted areas were determined to be low. We conducted more work than is normally performed during a risk assessment to ensure that our findings were well supported.

In light of this finding, in our opinion, there would be little value in conducting additional audit work related to the OPH Emergency Management Program.

Review of the Management of Emergency Shelter Providers – Contract Management

Purpose

This review was conducted as a result of a report to the Fraud and Waste Hotline. It assessed the effectiveness of the City's controls for ensuring that third party emergency shelter providers comply with specific contracted requirements. The review covered the 2015/2016 annual review cycle.

Background and rationale

The City has a service agreement with the Ministry of Housing to administer funding to emergency shelter operators using monies from the Community Homelessness Prevention Initiative (CHPI). There are approximately 950 permanent shelter spaces in eight shelters operated by community providers and two City-operated shelters. The City pays shelter operators approximately \$15.3 million annually to provide emergency shelter services for individuals and families experiencing homelessness.

As the administrator for CHPI funds, the City is accountable for ensuring that emergency shelter services are equitable for all clients; are delivered in compliance with the purchase of service agreement that the City has with shelter providers; and that per diem funding is applied only for eligible clients and services. The City's role also includes inspecting shelter premises and sharing information/resources that support both client services and develop shelter operators' organizational capacity. Effective control processes are essential for the City to fulfill its oversight role and ensure that shelters deliver service to an acceptable minimum level and receive the correct amount of funding.

Findings

The key findings related to the two aspects of the City's controls for managing emergency shelter agreements are as follows:

1. Emergency shelter provider compliance with Emergency Shelter Standards

The review found that the City has established *Emergency Shelter Standards* which provide shelter operators with a framework for delivering services to an acceptable

basic level. The review also found that the City has up-to-date executed agreements with each shelter provider. The agreements require that they comply with *Emergency Shelter Standards*, report annually on financial and service results and allow the City access to shelter premises to fulfil its oversight responsibility.

The City's *Emergency Shelter Standards* have not been reviewed or updated since 2005. They also do not cover some areas that are covered in the standards of other Ontario municipalities that we reviewed. These areas include collection and disclosure of personal information, destruction of personal property and managing abstinence from substances. In addition, in a number of areas the City's standards do not have clearly identifiable measurements of what constitutes minimum acceptable service.

We found that required City inspections are occurring on a timely basis. However, we noted an absence of an overall inspection framework and gaps in some tools and processes used to conduct the inspections and reviews. All of the requirements set out in the agreements and corresponding inspection results are not tracked in a consolidated manner and records of the corrective actions taken as a result of inspections are not maintained.

2. Payment of accurate amounts to emergency shelter providers for services provided

In order to assess the accuracy of payments made to shelter providers, we reviewed the controls over determining clients' contributions towards their shelter cost and the controls over the processing of monthly shelter provider invoices.

Shelter clients are required to contribute to the cost of their shelter based on an assessment of their income. To test the extent to which income sources were identified in the shelters' intake processes, we reviewed the social assistance information for a sample of 10 shelter clients. We found in all four cases where the clients had Ontario Works income, it had been reflected in the national homelessness system that is used to track client contributions. However, we found that the City does not periodically conduct similar tests or review shelter providers' intake procedures during inspections.

We reviewed a sample of the City's payment files for shelter operators and found that monthly shelter invoices complied with the per diem fee amounts in the agreements and the number of shelter nights provided reconciled to the national homelessness system. However, the City does not have documented policies or procedures to guide staff in completing a number of key financial processes.

We also found that the City has an informal policy to pay shelters in cases where they provide lengthy/intensive services to clients even if the clients do not stay overnight. Monthly invoices from some of the shelters itemize separately the clients receiving these services, the length of their stay at the shelter and the amount invoiced for the service. Controls over these payments are limited, reflecting their informal nature.

Conclusion

The overall objective of this review was to assess the City's management of its responsibility to ensure that the emergency shelter providers respect the terms and conditions of their agreements. We found that while some improvements are needed, particularly the need to refresh the City's Emergency Shelter Standards, on the whole, the City is carrying out its responsibilities.

Up-to-date shelter agreements are in place with each provider, the agreements contain reference to the standards and City staff conduct inspections to ensure compliance. These inspections could be improved however as staff do not document in sufficient detail, the scope and depth of inspection activity undertaken.

Invoice verification processes ensure that monthly shelter invoices are correctly calculated using the per diem fee amounts set out in the agreements. Improvements can be made however in documenting invoice verification processes, and clarifying through formal policy, certain invoice practices that have been accepted by the City.

Recommendations and responses

Recommendation #1

That the City review and update its Emergency Shelter Standards so that they are more comprehensive, detailed and measurable.

Management response:

Management agrees with this recommendation.

Housing Services will review the Emergency Shelter Standards used in other municipalities for best practices to ensure that a comprehensive detailed set of standards to guide the operations of emergency shelter providers is in place. A working group of shelter stakeholders and other ancillary partners will be formed to review, revise and update the 2005 Emergency Shelter Standards.

Proposed revised standards will be reported to Community and Protective Services Committee/City Council in Q1 2019.

Recommendation #2

That the City continue with its efforts to consolidate the tracking of shelter agreement requirements and the related oversight activities.

Management Response:

Management agrees with this recommendation.

New tracking processes were put in place in Q3 2017 to consolidate the tracking of shelter agreement requirements and related oversight activities. The Master Shelter Tracking Sheet includes the following information:

- Document Checklist – tracks the receipt of all annual documentation that is required as part of each agency's Service Agreement with the City of Ottawa;
- Inspection Tracking – records the dates, inspection types, details, corrective actions, and follow-ups of all shelter inspections (annual inspections and compliance reviews);
- Billing – records the details of each agency's monthly per diem invoices, HIFIS data confirmations, and dates/notes regarding the verification process;
- Contributions and Purchase Orders – records annual client contributions and the approved Purchase Order amounts for each agency;
- The Family Shelter Bed Nights – records the HIFIS bed nights for the two City Family Shelters as well as each of the offsite locations that are used each month.

Recommendation #3

That the City improve its emergency shelter inspection process:

- a. Maintain a list of completed corrective actions with the date that the corrective action was confirmed.
- b. Develop documentation that describes the overall inspections process framework which includes guidance when a status report on inspection findings is to be provided and when a re-inspection is to occur.
- c. Develop inspection tools directly linked to the Emergency Shelter Standards, which can capture the exact nature and extent of what was inspected and support the conclusion of whether specific standards were met or not met.

- d. Have City staff manage from start to finish the survey process undertaken as part of inspections.
- e. Develop and document the survey methodology that ensures objectivity in the survey process by having the City manage the entire survey process from start to finish. The survey methodology should be developed and implemented to ensure reasonable conclusions can be drawn from survey results. Such methodology should provide guidance on developing survey questions, sample selection and sizes and the mode of posing questions and collecting responses.
- f. Obtain signatures of Emergency Shelter operators acknowledging that they have understood the results of the inspections.

Management response:

Management agrees with this recommendation.

- a. An Inspection Tracking tool was created in Q3 2017 and is in use to record corrective actions and follow-ups for all shelter inspections (annual inspection and compliance reviews).
- b. Housing Services will develop guidelines and procedures to guide the inspections/re-inspection process by Q4 2018.
- c. Current inspection tools are linked to the 2005 Emergency Shelter Standards. They will be revised to more clearly define the nature and extent of what is being inspected and detail more explicitly expected minimum requirements and supporting documents required. Once the 2005 Emergency Shelter Standards are reviewed, updated and approved by City Council in Q1 2019, the Inspection Tool will be revised to align with any updates to the standards. This will be completed by the end of Q2 2019.
- d. Housing Services will review the survey purpose and process prior to the next annual review inspection cycle in Q2 2018, in addition to other mechanisms that are already in place or could be implemented, to measure client services in relation to the standards. If the survey is still considered a valuable tool to measure client satisfaction and gather feedback on services, Housing Services will oversee the process from start to finish.
- e. If the survey is adopted, Housing Services will review methodologies and best practices used in other municipalities to survey clients and staff. Challenges such as recruiting participants, access to online technology and access to

participants during the day will be considered when developing the survey process. The methodology will be documented and will focus on ensuring sample sizes are large enough to draw meaningful conclusions. This will be completed by Q2 2018.

- f. Shelter providers will now be asked to sign the Inspection report and findings to acknowledge receipt and understanding of the inspection findings and any required remedial actions. This will be implemented in Q3 2018.

Recommendation #4

That the City implement controls for determining whether shelter providers properly assess the financial needs of emergency shelter clients to determine whether clients should co-pay. Changes might include:

- a. Add intake activities to the Housing Services inspection processes.
- b. On a sample basis compare client's income reported in HIFIS with their income reported/assistance received in the Ontario Works system.

Management response:

To further encourage contributions and follow-up:

- a. Housing Services will review other municipalities' best practices and shelter standards pertaining to intake processes, including client contributions. Adopted changes will be included in any revisions to the 2005 Emergency Shelter Standards and, aligned with the Inspection Checklist for Annual Inspections and Compliance Reviews. A standardized line of inquiry will be developed for the intake process to support consistency and reinforce the contributions expectation. This will be completed by Q2 2018.
- b. On an annual basis, Housing Services will select a client sample to compare client income reported in HIFIS with their income reported/assistance received in the Social Assistance Management System (SAMS). This will begin in Q4 2018.

Recommendation #5

That the City improve the emergency shelter invoice verification process:

- a. Develop documentation guiding and explaining the monthly invoice verification process.
- b. Maintain original copies of reports supporting invoice verification on file.

- c. Reconcile the HIFIS system at pre-defined intervals and ensure that changes made to the HIFIS system subsequent to invoice approval are properly accounted for.
- d. Develop and communicate to the shelters a formal policy regarding cases where lengthy/intensive services are provided without a corresponding overnight stay.
- e. Develop procedures to verify the accuracy of amounts invoiced by shelters lengthy/intensive services provided to clients without a corresponding overnight stay.

Management response:

Management agrees with this recommendation.

- a. Housing Services will develop procedures to guide and explain the monthly invoicing process by Q2 2018.
- b. Original copies of all reports supporting income verification are now being retained as of Q3 2017.
- c. Housing Services will reconcile the HIFIS system semi-annually to ensure that changes made to the HIFIS system subsequent to invoice approval are properly accounted for. This will begin semi-annually in Q2 2018.
- d. The practice of emergency shelter billing for per diem expenses where an overnight stay has not occurred but lengthy/intensive services are provided, will be reviewed. Should this practice continue, a formal policy will be developed and communicated to all emergency shelters by Q2 2018.
- e. As per the response above, should the practice be continued, procedures will be developed to track and verify the accuracy of amounts invoiced by shelters for this service. This will be completed by Q3 2018.

Appendix A – By-law No. 2013-375 and No. 2015-11

A by-law of the City of Ottawa to establish the position and duties of Auditor General of the City of Ottawa, including statutory powers, and to repeal By-law No. 2009-323.

The Council of the City of Ottawa enacts as follows:

DEFINITIONS

1. In this by-law, “Auditor General” means the Auditor General of the City of Ottawa.

ESTABLISHMENT OF THE POSITION OF AUDITOR GENERAL

2. The position of Auditor General for the City of Ottawa is hereby established for the purposes of Part V.1 of the Municipal Act, 2001, S.O. 2001, c.25, as amended, with the statutory duties and functions as set out in Part V.1 of the Municipal Act, 2001, S.O. 2001, c.25, as amended, and in this by-law.

APPOINTMENT OF AUDITOR GENERAL

3. (1) City Council shall by-by-law appoint a person to the position of Auditor General for a non-renewable term to be determined by Council, and shall specify the terms and conditions of such appointment.

(2) The current Auditor General of the City of Ottawa is appointed as the Auditor General of the City of Ottawa for a fixed term of seven (7) years, which shall commence on December 15, 2013, and shall continue until December 31, 2020, unless terminated earlier by Council.

(3) The appointment of a person to the position of Auditor General may be made, suspended or revoked only by a two-thirds majority vote of all members of City Council.

(4) The Auditor General must be designated in Ontario as a chartered accountant, a certified general accountant, or a certified management accountant.

ACCOUNTABILITY

4. The Auditor General is independent of the City administration.
5. The Auditor General shall report to City Council, or to a Committee of Council as may be directed by City Council.

RESPONSIBILITIES

AUDITS

6. (1) Subject to and in accordance with the provisions of this By-law, the Auditor General shall be responsible for assisting City Council in holding itself and its administrators accountable for the quality of stewardship over public funds and for the achievement of value for money in municipal operations.

(2) Despite subsection (1), the responsibilities of the Auditor General shall not include the matters described in clauses 296(1)(a) and (b) of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended.

(3) The Auditor General shall be responsible for carrying out financial (excluding attest), compliance, and performance audits of:
 - (a) all programs, activities and functions of all City departments and agencies, and of the offices of the Mayor and Members of Council;
 - (b) local boards of the City as defined in Part V.1 of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, and as may be further prescribed in Schedule “A” to this by-law;
 - (c) municipally-controlled corporations as defined in the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, and as may be further prescribed in Schedule “B” to this by-law;
 - (d) grant recipients as defined in Part V.1 of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended; and,
 - (e) any other agencies, boards, commissions and corporations as Council may from time to time create or identify.

(4) At the request of Council or a board of directors, the Auditor General may conduct financial (excluding attest), compliance and performance audits of autonomous organizations that have an agreement with the City that contains provisions for an audit by the City.

(5) The audit work plan shall be approved by Council. Approved audits shall be conducted at such time and to the extent that the Auditor General considers appropriate, and the Auditor General shall establish such protocols and procedures that are necessary for the conduct of such audits, consistent with the *City of Ottawa Audit Standards* (modified from the Standards for the Professional Practice of Auditing), as approved by Council on June 13, 2012.

(6) The Auditor General shall not call into question or review the merits of the policies and objectives of Council.

INVESTIGATIONS OF FRAUD, MISAPPROPRIATION AND OTHER SIMILAR IRREGULARITIES

7. The Auditor General shall be responsible for the administration of the Fraud and Waste Hotline relating to any suspected acts of fraud, theft, misappropriation or other similar irregularity in accordance with the Corporate Policy on Fraud and Other Similar Irregularities as approved by City Council, and the Auditor General shall establish such protocols and procedures that are necessary for the conduct of such investigations.

DUTY TO FURNISH INFORMATION

8. In accordance with subsection 223.20(1) of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, the City, the local boards referred to in Schedule “A”, the municipally-controlled corporations referred to in Schedule “B”, and the grant recipients shall give the Auditor General such information regarding their powers, duties, activities, organization financial transaction and methods of business as the Auditor General believes to be necessary to conduct his or her duties under this by-law.

ACCESS TO INFORMATION

9. In accordance with subsection 223.20(2) of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, the Auditor General is entitled to have free access to all

books, accounts, financial records, electronic data processing records, reports, files and all other papers, things, or property belonging to, or used by the City, a local board referred to in Schedule “A”, a municipally-controlled corporation referred to in Schedule “B”, or a grant-recipient, as the case may be, that the Auditor General believes to be necessary to perform his or her duties under this by-law.

NO WAIVER OF PRIVILEGE

10. A disclosure to the Auditor General under Sections 8 or 9 does not constitute a waiver of solicitor-client privilege, litigation privilege, or settlement privilege.

ANNUAL AUDIT PLAN

11. (1) In each year subsequent to the year of appointment, the Auditor General shall submit an annual audit plan for the next following year to City Council for information by December 31st of each year.
- (2) The Auditor General may, at his or her discretion, prepare a longer term audit plan for submission to City Council.
- (3) No deletions or amendments to the annual audit plan shall be made except by the Auditor General.
- (4) Despite subsection (3), the Auditor General may, if requested by City Council or a board of directors, audit and report on additional matters.

REPORTING

12. (1) No later than December 31st of the next year following the tabling of the audit plan prescribed in subsection 11(1), the Auditor General shall provide to City Council a Notice of Tabling of the Annual Report.
- (2) The Auditor General may, as directed by Council or at his or her discretion, report on a more frequent basis to City Council or any Committee thereof.

OFFICE OF THE AUDITOR GENERAL

13. (1) The Auditor General is authorized to establish an Office of the Auditor General including a managerial hierarchy and administrative policies and procedures.
- (2) The Auditor General is authorized to appoint, promote, demote, suspend and dismiss, subject to any applicable personnel policies adopted by Council, all employees of the Office of the Auditor General.
- (3) The Auditor General is authorized to review the performance of personnel within the Office of the Auditor General subject to any personnel policies applicable to the employees of the City.
- (4) The Auditor General is authorized to retain the services of any individual or corporation for the purposes related to the operation of the Office of the Auditor General and to execute all agreements and contracts required for the provision of such services subject to the provisions of the City's Purchasing By-law.

ANNUAL BUDGET

14. (1) The annual budget of the Office of the Auditor General shall be in accordance with the budget strategy for the Term of Council.
- (2) Requests by City Council or a board of directors pursuant to subsection 11(4) shall be subject to the provision of appropriate funding.

DUTY OF CONFIDENTIALITY

15. The Auditor General and any person acting under his or her instructions shall be subject to the duty of confidentiality provided in Section 223.22 of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended.

IMMUNITY FROM TESTIMONY

16. Neither the Auditor General nor any person acting under the instructions of the Auditor General is a competent or compellable witness in a civil proceeding in connection with anything done under Part V.1 of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, or of this by-law.

REPEAL

17. By-law Number 2009-323 of the City of Ottawa entitled “A by-law of the City of Ottawa to establish the position and duties of the Auditor General of the City of Ottawa and to repeal By-law No. 2005-84”, as amended, is repealed.

ENACTED and PASSED this 11th day of December, 2013.

CITY CLERK

MAYOR

SCHEDULE “A”

Local Boards

1. City of Ottawa Superannuation Fund
2. Cumberland Village Heritage Museum Board
3. Nepean Museum Board
4. Ottawa Municipal Campsite Authority
5. Pineview Municipal Golf Club Board of Management
6. CARP Airport Authority (formerly the West Carleton Airport Authority)
7. Crime Prevention Ottawa
8. Property Standards Committee
9. Bank Street B.I.A.
10. Barrhaven BIA
11. Byward Market
12. B.I.A. Carp Village B.I.A.
13. Glebe B.I.A.
14. Heart of Orleans B.I.A.
15. Manotick B.I.A.
16. Preston Street B.I.A.
17. Downtown Rideau Improvement Area B.I.A.
18. Somerset Chinatown B.I.A.
19. Somerset Village B.I.A.
20. Sparks Street Mall Authority / Sparks Street Mall B.I.A.
21. Vanier B.I.A.
22. Wellington West B.I.A.
23. Westboro B.I.A.

SCHEDULE “B”

Municipally-Controlled Corporations

1. Hydro Ottawa Holding Inc./Société de Portefeuille d’Hydro Ottawa Inc.
2. Ottawa Community Housing Corporate/La Société de Logement Communautaire d’Ottawa

BY-LAW NO. 2013 - 375

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A by-law of the City of Ottawa to establish the position and duties of Auditor General of the City of Ottawa, including statutory powers, and to repeal By-law No. 2009-323.

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Enacted by City Council at its meeting of December 11, 2013.

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LEGAL SERVICES

VB: G04-01-STAT AG

COUNCIL AUTHORITY:

City Council – October 23, 2013 Motion 63/3

BY-LAW NO. 2015-11

A by-law of the City of Ottawa to amend by-law No. 2013-375 of the City of Ottawa to establish the position and duties of the Auditor General of the City of Ottawa, including statutory powers.

The Council of the City of Ottawa enacts as follows:

1. Subsection 3(4) of By-law No. 2013-375 entitled “A by-law of the City of Ottawa to establish the position and duties of Auditor General of the City of Ottawa, including statutory powers, and to repeal By-law No. 2009-323” is repealed and the following subsection (4) is substituted in its place:

The Auditor General must be designated in Ontario as a chartered professional accountant (formerly known as chartered accountant, a certified general accountant, or a certified management accountant).

2. Subsection 12(1) of said By-law No. 2013-375 is repealed and the following subsection (1) is substituted in its place:

No later than December 31st of the next year following the tabling of the audit plan prescribed in subsection 11(1), the Auditor General shall provide to City Council a Notice of Tabling of the Annual Report, except in an election year when timelines for the Auditor General’s Annual Report will be determined by the Auditor General, in consultation with the Mayor and the Chair of the Audit Committee, and may be tabled after December 31st of the next year following the tabling of the audit plan.

ENACTED AND PASSED this 28th day of January 2015.

CITY CLERK

MAYOR

BY-LAW NO. 2015- 11

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A by-law of the City of Ottawa to amend By-law No. 2013-375 of the City of Ottawa to establish the position and duties of the Auditor General of the City of Ottawa, including statutory powers.

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Enacted by City Council at its meeting of January 28, 2015

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LEGAL SERVICES

G04-01 STAT AG

Council Authority:

City Council December 3, 2014

Agenda Item 1&

Delegation of Authority By-law

(2014-435), Schedule “A”, s.63