



Office of the Auditor General

Audit of Ottawa Fire Services – Fire Suppression

**Tabled at Audit Committee
November 26, 2019**

Table of Contents

Executive summary	1
Purpose.....	1
Background and rationale	1
Findings	2
Conclusion	5
Recommendations and responses.....	6
Detailed audit report.....	8
Introduction	8
Background and context	8
Audit objectives and criteria	9
Audit scope	10
Audit approach and methodology.....	10
Audit observations and recommendations	11

Acknowledgements

The team responsible for this audit comprised of staff from Samson and Associates, under the supervision of Ed Miner, Deputy Auditor General and the direction of Ken Hughes, Auditor General, would like to thank those individuals who contributed to this project, and particularly, those who provided insights and comments as part of this audit.

Original signed by:

Auditor General

Executive summary

Purpose

The audit examined key management systems, practices and processes within Ottawa Fire Service (OFS) to ensure they support the delivery of effective and efficient fire suppression operations.

Background and rationale

The OFS provides service to approximately 970,000 citizens across a coverage area of roughly 2,800 square kilometers. Operational oversight of OFS is provided by the fire management team which consists of the Fire Chief, four Deputy Fire Chiefs and a Program Manager of Operational Support Services.

The fire suppression program of the OFS is focused on controlling and/or extinguishing fires. The OFS provides emergency response coverage through 45 fire stations located across Ottawa using the services of approximately 900 unionized “career” firefighters and approximately 480 “volunteer” (paid on-call) firefighters who are not unionized. In addition, there is a dispatch centre and an emergency backup dispatch centre.

As required under its collective agreement with the Ottawa Professional Firefighters Association (OPFFA), OFS maintains a minimum of 161 career firefighters on duty at all times. These career firefighters work a 42-hour work week in staggered 24-hour shifts. This schedule results in them working seven 24-hour shifts every 28 days.

OFS suppression teams rely on information systems including Flexible Data Management (FDM). FDM supports the capture of data used to manage day-to-day OFS activities (e.g. response times) and to support suppression response teams (e.g. via data on the structure and design of specific City buildings). This and other systems are maintained by OFS staff.

It is within this context that the audit of OFS fire suppression operations was undertaken.

Findings

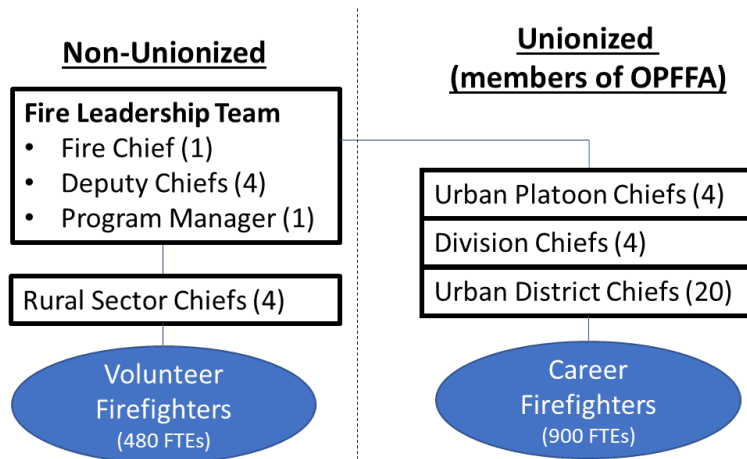
The audit focused on management systems, practices and processes in three key areas which were selected based on risk:

- Governance and oversight;
- Recruitment processes; and
- Management of key information systems.

Key findings associated with these areas are as follows:

1. Supervisory oversight of career firefighters can be improved

The audit found that a lack of separation in union affiliation between unionized OFS supervisory staff and unionized career firefighters impacts OFS senior leadership’s capacity in managing effective and efficient fire suppression operations.



Beyond the Fire Leadership Team, consisting of the Fire Chief, four Deputy Chiefs and a Program Manager, and the Rural Sector Chiefs, all fire suppression supervisory personnel (i.e. Platoon Chiefs, Division Chiefs and District Chiefs) and fire suppression staff (career firefighters) are members of the same union.

This structure creates management challenges. For example, the current collective agreement stipulates that management and disciplinary matters are the sole responsibility of the employer/management. This has been interpreted by the OFS Leadership as meaning that supervisory personnel (e.g. District Chiefs and Platoon Chiefs) are not considered management and therefore they cannot be involved in planning, directing or controlling operations or in addressing disciplinary matters.

As a result, all operational management matters (i.e. planning, directing, controlling operations) become the direct responsibility of the four Deputy Chiefs given that their direct reports (e.g. Platoon Chiefs, District Chiefs and Division Chiefs) are not considered management.

The absence of an OFS middle management layer, together with other collectively bargained provisions, has limited the ability of the OFS Leadership Team to build the management competency in supervisors (e.g. Platoon Chiefs, District Chiefs and Division Chiefs). The current collective agreement includes restrictions for OPFFA members (e.g. Platoon Chiefs, District Chiefs and Division Chiefs) to take on temporary assignments (e.g. to build management competencies, broader experience, or undertake special projects such as Light Rail Transit safety system oversight).

To address these issues, we found that OFS senior management have advanced a collective bargaining proposal to exclude Division and Platoon Chiefs from representation under the OPFFA and have these positions be management professional exempt (MPE). While this change in structure, which has yet to be collectively bargained, would provide a starting point for enhanced governance and oversight, OFS senior management also recognize the potential concerns/barriers of such a change including:

- OPFFA opposition to any change that would reduce the size of their membership;
- Supervisor (e.g. Platoon Chief, District Chief) reluctance to give up their current 24-hour shift staffing model; and
- The need to build the managerial competencies of OFS supervisors (e.g. literacy for report writing, financial/budget management, labour relations management etc.) given these supervisors have not been required to have or develop these skills in their current positions.

We found that OFS senior management have identified succession planning as an organizational need, however they acknowledge that the plan to address it is at a very early stage.

2. OFS recruitment processes is not efficient

OFS runs a bi-annual firefighter recruitment campaign which attracts many applicants (typically 1,500 to 2,000) for a limited number of fire suppression hires (30 – 40 per year). This process is of high importance for OFS in order to maintain its fire suppression capacity. Further, this process represents the single-entry pathway to the OFS “career” cadre of employees which includes specialty groups (e.g. hazardous

materials team) Fire Prevention, Training, Safety, Maintenance etc. Movement into these groups is only available to fire suppression staff per the current collective agreement.

The audit found that the current recruitment process is lengthy (typically eight to nine months in duration) and highly resource intensive due to several factors including there being no requirement for applicants to be pre-qualified to any recognized standard (i.e. National Fire Protection Association (NFPA) standards). In the absence of pre-qualification requirements, unlike many other municipalities, the OFS assumes the burden of training new hires to NFPA standards.

OFS senior management acknowledge the inefficiencies in the current recruiting process and have taken initial steps to undertake a Recruitment and Hiring Strategy Review. The objectives of this initiative include a review of best practices and identifying the most cost-effective approach to provide quality of recruits. This initiative will also include identification of potential short, mid and long-term adjustments to improve the OFS recruitment approach.

3. Diversity and inclusion focus of OFS recruitment processes can be improved

The audit found that there are opportunities to improve the representation of diversity groups within the OFS. Based on 2017 data comparing the available workforce to the OFS workforce, women, members of visible minorities and persons with disabilities are underrepresented in the OFS workforce.

The audit found that the OFS is making progress in attracting a more diverse pool of applicants. For example, the percentage of applicants identifying as being a member of a visible minority grew from 6.6% in 2016 to 10.0% in 2018. This compares favourably to the 7.6% workforce availability of this group.

There remain opportunities, however, to improve the diversity of the OFS applicant pool, particularly for women who remain underrepresented in relation to workforce availability.

City Departments are required to provide annual diversity and inclusion plans. In 2017, the City's Diversity and Inclusion (DI) Branch within the Human Resources made several non-binding recommendations for the Emergency and Protective Services Department. OFS management has implemented recommendations to target recruitment to increase the diversity of applicants. However, no specific action has been taken to use diverse hiring panels and more inclusive selection and interview processes.

As an organization within the Emergency and Protective Services Department, the OFS does not have its own specific diversity goals and does not provide any reporting to Council related to the progress of its diversity and inclusion efforts.

4. Information system business continuity controls have been implemented, however, broader IT planning and data quality management can be improved

The OFS is reliant on information systems to support the timely capture of data used to support management of operations and suppression response teams in their day-to-day activities. The 2016 City reorganization introduced a portfolio approach to the delivery of emergency response services wherein OFS information systems technical support staff levels were reduced or transferred to the Emergency and Protective Services Department which now provides information systems support to the OFS.

In relation to the key information systems that support OFS operations, we found that the OFS is reliant on various organizations to support its systems. These groups include the City IT Business Group, the Ottawa Police Service, third party vendors, and OFS staff.

Within this support environment, we found that OFS has implemented effective back up and business continuity controls for its key information systems. However, opportunities for improvement exist in relation to its broader information technology planning and information system data quality management.

Conclusion

The OFS has a complex management environment illustrated by the scope of its mandate in providing service to the citizens across Ottawa and the complexity of its labour relations / collective bargaining environment.

The audit found that OFS management systems, practices and processes have generally been established to support delivery of effective and efficient fire suppression operations. The audit found, however, that opportunities exist to strengthen some of these management systems, practices, and processes.

Recommendations and responses

Recommendation #1

That the City move OFS supervisory staff out of the current collective bargaining unit.

Management response:

Management agrees with this recommendation.

Management cannot unilaterally implement this recommendation as labour relations matters for firefighters are governed by the *Fire Protection and Prevention Act, 1997* (“FPPA”). The FPPA stipulates that every firefighter employed in a fire department forms part of a bargaining unit for the purpose of collective bargaining unless, “in the opinion of the Board, he or she exercises managerial functions or is employed in a confidential capacity in matters relating to labour relations or her or she is a person designated under subsection 54(4)”. The Ontario Labour Relations Board (OLRB) has the exclusive jurisdiction to determine the question of whether a person exercises managerial functions or is employed in a confidential capacity in matters relating to labour relations. Letter of Understanding #6 of the collective agreement affirms that the City has two avenues for pursuing the exclusion of positions from the bargaining unit on the basis of the performance of managerial duties: via agreement with the Association, or via an application to the OLRB under s. 54(2) of the FPPA.

OFS senior management have previously advanced a proposal to exclude Division Chiefs and Platoon Chiefs from the OPFFA bargaining unit and to instead have these positions be management professional exempt (MPE), through collective bargaining. The OPFFA has not agreed to the proposal. OFS senior management is committed to pursuing this exemption in the next round of collective bargaining in Q1 2020 and, failing agreement with the OPFFA, will consider an application to the OLRB, in consultation with Legal Services.

Recommendation #2

That the City conduct a thorough evaluation of the OFS recruitment process and framework to ensure the most effective and efficient use of City resources while ensuring the highest quality of recruits, with consideration for diversity and inclusion.

Management response:

Management agrees with this recommendation.

OFS is committed to the principles of diversity and inclusion. OFS has initiated a review of its recruitment and hiring strategy, which includes benchmarking, identifying current challenges and possible solutions to identify the most efficient and cost-effective approaches to attract the highest quality of recruits with consideration for a diverse workforce. This review is underway and will be presented at the Community and Protective Services Committee no later than Q2 2020.

Recommendation #3

That the City initiate regular reporting to Council on the status and effectiveness of OFS workforce diversity approaches.

Management response:

Management agrees with this recommendation.

Additional information with respect to recruitment and diversity will be highlighted in the Ottawa Fire Services annual report to Council.

Recommendation #4:

That the City develop a comprehensive risk-based IT planning process for the OFS, including the identification and monitoring of system lifecycle requirements and support resource requirements.

Management response:

Management agrees with this recommendation.

OFS is currently working on a Technology Roadmap as part of a larger departmental initiative that will define the short, medium and long-term technology priorities for the Service. This includes the implementation of an OFS Business Intelligence Framework, which is intended to allow the Fire Leadership Team to analyze new dashboards of data to make operational and strategic decisions, including technology planning and resource implementation. The OFS Technology Roadmap is expected to launch in Q3 2020.

OFS will also continue to oversee device lifecycle requirements through this new Roadmap, with the strategic assistance of the City's IT Services.

Detailed audit report

Introduction

The Audit of Ottawa Fire Services was included in the 2018 Audit Plan of the Office of the Auditor General, approved by City Council on November 22, 2017. The Ottawa Fire Service (OFS) acts as a semi-autonomous branch of the City that provides fire suppression/prevention, rescue, and tiered emergency medical response services to the City of Ottawa.

When we conduct audits of city branches or departments, a risk assessment is done to determine areas of audit. The outcome of the risk assessment is an audit plan that can be comprised of multiple audits that will be conducted over a number of years.

Fire suppression operations were identified as an area of audit focus. This includes how the current OFS management organization structure promotes stewardship and enables effective and efficient operations, how OFS management identifies and actively manages labour relation risks and opportunities and how OFS management ensures adequate capacity to effectively support its key information systems.

Background and context

The OFS provides service to approximately 970,000 citizens across a coverage area of roughly 2,800 square kilometers.

Operational oversight of OFS is provided by the fire management team which, prior to the City's 2016 reorganization, consisted of six Assistant Deputy Fire Chiefs, who reported to two Deputy Chiefs, who in turn reported directly to the Fire Chief. As part of the reorganization, the Assistant Deputy Fire Chief positions and a Program Manager position were eliminated. The Fire Leadership Team now consists of the Fire Chief, four Deputy Fire Chiefs (Urban Operations and Special Operations; Community Standards & Communications; Training, Safety & Innovation; Rural) and a Program Manager of Operational Support Services.

The fire suppression program of the OFS is focused on controlling and/or extinguishing fires for the purposes of protecting people from injury or death and reducing property loss. The OFS provides emergency response coverage through 45 fire stations and one Dispatch Centre (as well as an emergency backup dispatch centre) located across the

city of Ottawa using the services of approximately 900 unionized “career” firefighters and approximately 480 “volunteer” (paid on-call) firefighters who are not unionized.

As required under its collective agreement, OFS always maintains a minimum of 161 career firefighters on duty. At each of the 29 career stations there are four platoons (A, B, C, D) each overseen by a unionized Platoon Chief. Each platoon works a 42-hour work week in staggered 24-hour shifts. This schedule results in each “career” firefighter in suppression working seven 24-hour shifts every 28 days.

Volunteer firefighters are assigned to specific stations based on their primary residence or place of work and respond to incidents on an as required basis. Training for volunteer firefighters is scheduled for weekends and weekday evenings. Responses into urban and suburban areas by volunteer firefighters are governed by the collective bargaining agreement with the Ottawa Professional Firefighters Association (OPFFA).

OFS suppression teams rely on information systems including Flexible Data Management (FDM). FDM is a critical application used to support the capture of data used to manage day-to-day OFS activities (e.g. response times) and to support suppression response teams (e.g. via data on the structure and design of specific City buildings). This and other systems are maintained by OFS staff.

It is within this context that the audit of OFS fire suppression operations was undertaken.

Audit objectives and criteria

The overall objective of this audit was to determine that key management systems, practices and processes within OFS support the delivery of effective and efficient fire suppression operations.

This overall objective included the following three audit objectives:

Audit objective #1

Assess the processes and practices in place to ensure appropriate governance and oversight.

Criteria:

- The current OFS management organization structure promotes stewardship and enables effective and efficient fire suppression operations

- OFS management appropriately identifies and actively manages labour relations and workforce concession risks and opportunities

Audit objective #2

Assess the efficiency and effectiveness of OFS recruitment processes.

Criteria:

- OFS recruitment processes are efficient and effectively respond to the needs of the service

Audit objective #3

Assess the processes and practices in place to ensure appropriate management of key information systems.

Criteria:

- OFS has adequate capacity to effectively support its key information systems, ensure business continuity and ensure data quality control

Audit scope

The scope of the audit included an examination of OFS management and governance structures and processes, including those related to succession management, labour relations risk and opportunity management, recruitment process management and information systems management. The audit focused primarily on management activities within the Urban Operations and Rural Operations organizations of the OFS.

The scope of the audit was focused on the period from January 2017 to December 2018.

Audit approach and methodology

The audit methodology included the following activities:

- Interviews with OFS leadership, operational representatives and other organization staff directly supporting the management processes in scope;
- Review of documentation relevant to the audit scope areas. e.g.: available management reports, process documentation, collective agreement, etc.;

- Comparative analysis of OFS considerations (e.g. management structure) vs. comparable City and other jurisdiction organizations;
- Analysis and testing of the linkages, alignment and consistency of audit evidence gathered for each of the selected areas of examination; and
- The audit fieldwork was substantially completed by December 31, 2018.

Audit observations and recommendations

Audit objective #1

In 2016, the City undertook a significant reorganization which impacted the OFS senior management structure. Prior to this reorganization, OFS leadership consisted of six Assistant Deputy Fire Chiefs (operations focus), who reported to two Deputy Chiefs (strategic and oversight focus), who in turn reported directly to the Fire Chief. As part of the reorganization, the Assistant Deputy Fire Chief positions and a Program Manager position were eliminated, and two Deputy Chief positions were added.

This reorganization was intended, in part, to flatten management positions to broaden portfolios and increase accountability, to enhance succession planning and empower future leaders.

As such, the audit expected to see that the OFS current management organization structure promotes stewardship and enables effective and efficient fire suppression operations. Further, given the significant impact of the collective agreement on fire suppression operations, we expected to see that OFS management actively identifies and manages collective agreement concession risks and opportunities.

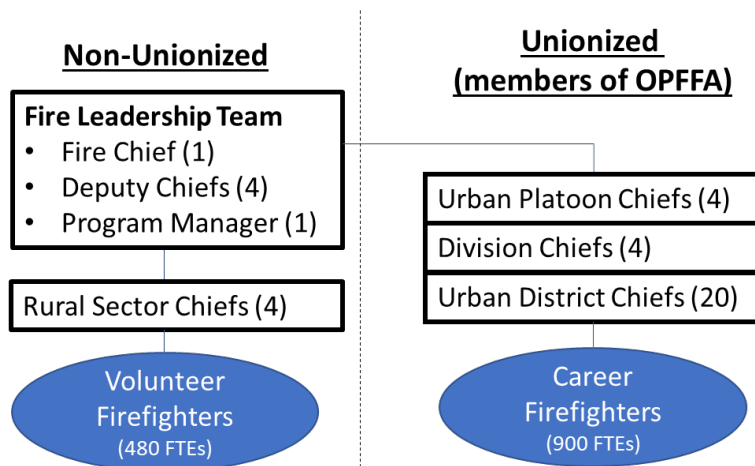
Current OFS management structure and summary of Union affiliations

OFS career firefighters are distributed across the city in five districts, each of which has three to seven fire stations and are led by a District Chief (unionized – members of the OPFFA). Each urban fire station is staffed by 25-30 fire personnel (unionized – members of the OPFFA) working in shifts to provide 24/7 fire suppression response and other specialized services (e.g. specialized rescue, hazardous materials). Each shift is managed by one of the four Platoon Chiefs, each of which has five District Chiefs reporting to them. OFS volunteer firefighters cover four rural districts, which are each managed by a Sector Chief (non-unionized management exempt positions).

Twenty-five “urban” fire stations are staffed solely by full time career firefighters (unionized – members of the OPFFA). Sixteen “rural” fire stations are staffed solely by volunteer firefighters (non-unionized). The remaining four stations, which straddle urban and rural areas of the city, are composite in that they have both career (unionized - members of the OPFFA) and volunteer firefighters (non-unionized).

The District Chiefs responsible for “career” firefighters are unionized (members of OPFFA) while the Sector Chiefs responsible for volunteer firefighters are not unionized. Beyond the Fire Leadership Team (Chief and Deputies), these four rural Sector Chiefs are the only supervisory staff within the OFS that are not unionized members of the OPFFA.

Summarized below is a simplified view of the current management/supervisory layers of the OFS. Beyond the Fire Leadership Team and Rural Sector Chiefs, all fire suppression supervisory personnel (e.g. Platoon Chiefs, Division Chiefs and District Chiefs) and fire suppression staff (career firefighters) are members of the same union.



We conducted a comparative analysis of the management organization structures of three other composite¹ fire services (Sudbury, Hamilton and Halifax) and two other City of Ottawa services (police and paramedic services). We found that in all cases except one (Sudbury), middle-managers with supervisory responsibility are not part of the same union that represents most staff. For example, Ottawa Police staff with supervisory responsibility (e.g. Superintendents, Inspectors) are members of a union

¹ A composite fire service includes both career and volunteer firefighters.

(Senior Officers Association) that is separate from the union representing police staff (i.e. Ottawa Police Association) whereas Ottawa Paramedic staff with supervisory responsibility (e.g. Commanders, Superintendents) are members of a union (CIPP) that is separate from the union representing paramedic staff (i.e. Canadian Union of Public Employees (CUPE)).

Impact of current OFS structure on management and disciplinary matters

The current collective agreement stipulates that management and disciplinary matters are the sole responsibility of the employer/management. This has been interpreted by the OFS Leadership as meaning that supervisory personnel (e.g. District Chiefs and Platoon Chiefs) are not considered management (i.e. the employer) and therefore cannot be involved in planning, directing or controlling operations or in addressing disciplinary matters.

As a result of this interpretation, all operational management matters (i.e. planning, directing, controlling operations) become the direct responsibility of the four Deputy Chiefs given that their direct reports (e.g. Platoon Chiefs, District Chiefs and Division Chiefs) are not considered management as they are members of the OPFFA.

As a specific illustration of this responsibility, the OFS receives approximately 20 employee grievances per year. With the current management structure, these grievances, or any disciplinary matter require the direct involvement of Deputy Chiefs. OFS current operating practice is for two Deputy Chiefs to be present to hear any grievance.

Impact of current OFS structure on succession planning and management development

Because of the lack of a middle management layer together with collectively bargained provisions, the OFS Leadership Team is limited in its ability to build up the management competency in the supervisors (e.g. Platoon Chiefs, District Chiefs and Division Chiefs) who are members of the OPFFA. The current collective agreement includes restrictions for OPFFA members (e.g. Platoon Chiefs, District Chiefs and Division Chiefs) to take on temporary assignments (e.g. to build management competencies, broader experience, or undertake special projects such as Light Rail Transit safety system oversight).

To address the issues identified, we found that OFS senior management have advanced a collective bargaining proposal to exclude Division and Platoon Chiefs from representation under the OPFFA but instead having these positions be management

professional exempt (MPE). While this change in structure, which has yet to be collectively bargained, would provide a starting point for enhanced governance and oversight, OFS senior management also recognize the potential concerns/barriers of such a change including:

- OPFFA opposition to any change that would reduce the size of their membership;
- Supervisor (e.g. Platoon Chief, District Chief) reluctance to give up their current 24-hour shift staffing model; and
- The need to build the managerial competencies of OFS supervisors (e.g. literacy for report writing, financial/budget management, labour relations management etc.) given these supervisors have not been required to have or develop these skills in their current positions.

In this context, we found that OFS senior management have identified succession planning as an organization need but acknowledge that OFS is at a very early stage in undertaking a meaningful approach to developing a management succession plan.

Impact of current OFS structure on broader management of OFS

The current OFS management structure and associated provisions of the collective agreement has created a significant management challenge for the organization. While recognizing the challenge, the senior management team was not able to provide us with objective evidence of the impacts of the current situation. Objective evidence could, for example, include measurement of the percentage of senior management time spent on activities such as addressing employee grievances. As such, our evidence was limited to the benchmarking analysis and senior management interviews. Senior management indicated that the lack of “non-unionized” operational management or a supervisory layer, coupled with collective agreement limitations:

- Impedes the OFS ability to undertake management succession planning;
- Impedes OFS Deputy Chiefs ability to delegate and requires them to be overly involved in day to day operational activities, including:
 - All employee grievances /duty to accommodate cases/WSIB cases
 - All employee disciplinary matters
 - All union relations/collective bargaining
 - All financial/budgetary matters

Senior management also indicated that this in turn reduces the capacity of Deputy Chiefs to focus on strategic and analytical issues. Examples where senior management acknowledged that additional attention was required included:

- Capacity to evaluate the full impacts of the 24-hour shift pilot – i.e. implications on sick leave, mental health, training, and the implications for attracting people into fire prevention positions which do not have a 24-hour shift schedule;
- Capacity to evaluate and update Standard Operating Procedures and the OFS Safety Program; and
- Capacity to actively manage the Return-to-work program.

Collective Agreement status

The OFS has a complex labour relations / collective bargaining environment and is currently in the process of negotiating the update of its collective agreement.

The current agreement with the OPFFA expired December 31, 2015. This 2015 agreement was finalized in May 2017. Negotiations to update the collective agreement reconvened in November 2017 with the exchange of union/management proposals. Negotiations on a new agreement continued until April 2018 at which time negotiations were cut off. In September 2018 an Interest Arbitrator was named with arbitration expected to commence in mid-2019. In the absence of an updated collective agreement, the agreement which expired in 2015 remains in force.

OFS approach to the Collective Agreement process and management of workforce concession risks and opportunities

We found that the OFS Leadership Team and the City Labour Relations (LR) unit have implemented approaches to actively identify and manage labour relations / workforce concession risks and opportunities. However, their ultimate success in achieving balanced outcomes for the City and OFS is a function of the collective bargaining process.

Where an employee group covered by a collective agreement (CA) resides entirely within a single department - such as is the case with the OPFFA collective agreement, LR works directly with the management team for that department in developing its approach and mandate for collective bargaining. In the case of the OFS, it is the OFS Leadership Team (Chief and Deputy Chiefs) that determine the final proposal package and Labour Relations will meet with the City management team periodically to review

suggestions for proposals. The number of meetings and sequences of meetings can vary from round to round, depending on the range and scope of operational issues affecting the workplace and likely to arise in bargaining.

A key input to the process is the bargaining mandate which is established at an in-camera session of Council. This mandate addresses broad expectations in terms of economic increases, benefits changes and other factors such as the goal of balancing police and fire salary increases, for example.

At these meetings, LR reviews with the OFS Leadership Team suggestions received from various sources during the life of the collective agreement, proposals from previous rounds, suggestions from stakeholders (including Human Resources, notably the Benefits Branch and Payroll), and new suggestions from OFS management. LR will have solicited suggestions from stakeholders prior to meeting with the OFS.

A component of this process includes LR and the OFS Leadership Team reviewing the purpose, pros and cons, and the long-term and strategic goals of any proposals. Bargaining history, arbitration awards and grievances are also considered when assessing the range of potential bargaining proposals. LR will also identify any language inconsistencies or legislative compliance changes that may be required in the collective agreement. The OFS Management Team also assesses the impact to management rights of any potential proposal.

Proposals requiring stakeholder feedback (e.g. from City Finance or HR) and/or comparator information (internal/external) are identified at the preparatory meetings. We reviewed several examples of this process. For example, HR provided feedback on revising certain proposals related to employee benefits (e.g. a proposed introduction of a short-term disability plan for new hires) which was provided to the OFS Leadership Team for consideration in the development of final proposals. LR may also fine-tune the draft proposals prior to meeting with Fire Management to finalize the proposal package. The OFS Leadership Team determines the final proposal package.

Lastly, the final proposal package, which is typically in the range of 50 proposals/sub-proposals, is reviewed to ensure it adheres to the approved mandate. The list of management proposals submitted to the current round of collective bargaining included high profile/impact changes such as: excluding supervisory management (e.g. platoon and division chiefs) from the agreement and revisiting the firefighter work schedule (i.e. 24-hour shift).

At a designated time, union and management proposals are exchanged and negotiations commence. OFS management stated that there are usually a much higher number of union proposals, in the range of 160, than management proposals. Union proposals are also typically more general in nature with multiple layers of complexity. In addition, the union typically expects that all proposals will be considered/discussed in a face-to-face setting with the OFS Leadership Team. The Fire Chief and Deputies estimate that this involved 25 – 30 days each at the bargaining table in the last negotiating round (November 2017 – April 2018).

Illustrative examples of the results of this process include the following workforce concessions that have been made over the past five years:

24-Hour Shift Pilot - The OFS has implemented a “24-hour shift” pilot program in 2011. The initial three-year pilot has been extended multiple times. It is perceived by OFS senior management to have had significant negative operational implications for the OFS including training inflexibility, escalated sick leave, potential mental health challenges, challenges in encouraging suppression resources (seven 24-hour shifts every 28 days) to join fire Prevention and Training (regular day shifts). This pilot, seen as a significant benefit by firefighters, has been underway for more than seven years and has not yet been collectively bargained. There has not been a systematic assessment of this pilot undertaken yet to assess the relative merits and challenges of this workforce concession.

Amending the Vacation Selection System – This change was introduced in the current 2015 agreement to address operational issues that arose with the previous seniority-based vacation selection process. Under the old system, employees with more seniority had first choice of vacation schedules. This created significant operational issues for OFS and resulted in depth of command gaps (e.g. too many senior/supervisory staff off at one time which created a significant overtime burden for remaining senior/supervisory staff). These issues have been addressed under the new system which restricts the number of similar staff that can be on vacation at any one time. This concession is perceived by OFS management as a significant benefit to suppression operations and management.

Transfer of Lieu Days – This change was introduced in the current (2015) agreement to address issues with the treatment of lieu days. Each firefighter receives 13 days in lieu of statutory and declared holidays. Under the old approach, there were restrictions on trading of lieu days which created situations where firefighters had limited flexibility to address short notice time off requirements. In order to provide more flexibility, lieu day

transfers (between same ranks) were permitted under a pilot implementation. This pilot was viewed as positive as it reduced sick leave days and overtime requirements for replacement staff. As a result of the positive impact for both OFS management and union, this change was built into the 2015 contract.

Recommendation #1

That the City move OFS supervisory staff out of the current collective bargaining unit.

Management response:

Management agrees with this recommendation.

Management cannot unilaterally implement this recommendation as labour relations matters for firefighters are governed by the *Fire Protection and Prevention Act, 1997* (“FPPA”). The FPPA stipulates that every firefighter employed in a fire department forms part of a bargaining unit for the purpose of collective bargaining unless, “in the opinion of the Board, he or she exercises managerial functions or is employed in a confidential capacity in matters relating to labour relations or her or she is a person designated under subsection 54(4)”. The Ontario Labour Relations Board (OLRB) has the exclusive jurisdiction to determine the question of whether a person exercises managerial functions or is employed in a confidential capacity in matters relating to labour relations. Letter of Understanding #6 of the collective agreement affirms that the City has two avenues for pursuing the exclusion of positions from the bargaining unit on the basis of the performance of managerial duties: via agreement with the Association, or via an application to the OLRB under s. 54(2) of the FPPA.

OFS senior management have previously advanced a proposal to exclude Division Chiefs and Platoon Chiefs from the OPFFA bargaining unit and to instead have these positions be management professional exempt (MPE), through collective bargaining. The OPFFA has not agreed to the proposal. OFS senior management is committed to pursuing this exemption in the next round of collective bargaining in Q1 2020 and, failing agreement with the OPFFA, will consider an application to the OLRB, in consultation with Legal Services.

Audit objective #2

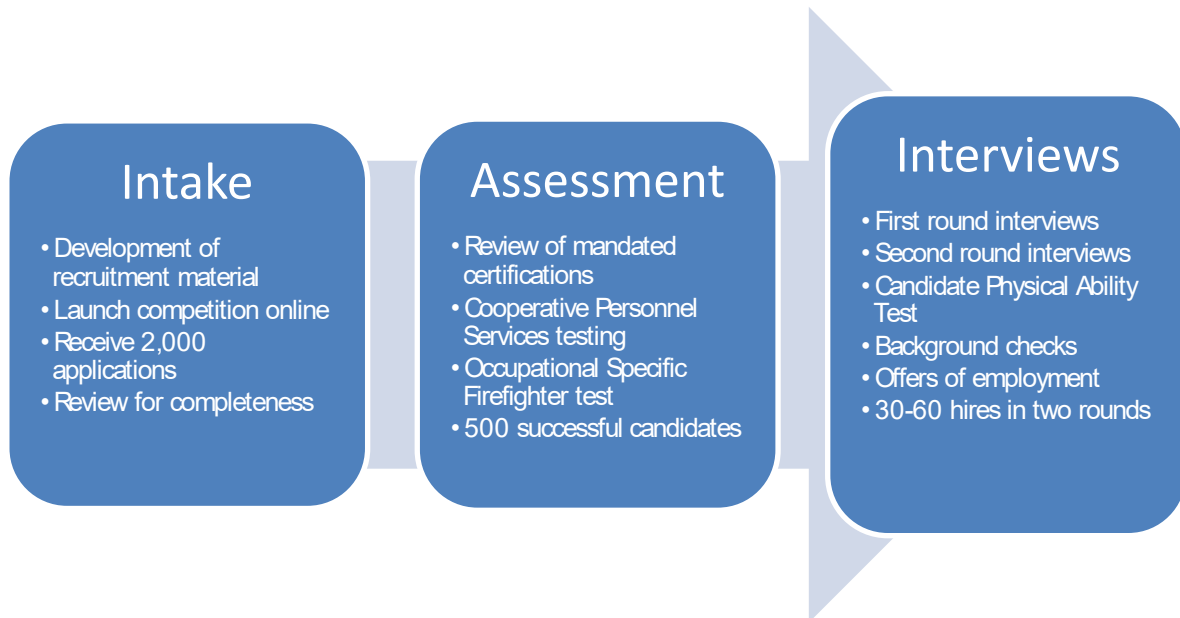
OFS runs a bi-annual firefighter recruitment campaign, attracting many applicants (typically 1,500 to 2,000) for a limited number of fire suppression hires (30 – 40 per year). This process is of high importance for OFS in order to maintain its fire suppression capacity. Further, this process represents the single-entry pathway to the

OFS “career” cadre of employees which includes specialty groups (e.g. hazardous materials team) Fire Prevention, Training, Safety, Maintenance etc. Movement into these groups is only available to fire suppression staff per the current collective agreement.

As such, the audit expected to see an ***efficient OFS fire suppression recruitment process that effectively responds to the needs of the service.***

Recruitment process overview

Traditionally, every two years, the OFS initiates a recruitment process by contacting the City’s Human Resources Service Centre (HRSC). The HRSC aids in campaign development and launch of the applicant intake process. The overall recruitment process is summarized as follows:



Electronically submitted applications are received by HRSC who review them for completeness and forward the completed applications to OFS Training and Safety Division. Subsequent steps of the recruitment lifecycle are managed by OFS with limited involvement by the HRSC.

OFS Training and Safety Division staff review the e-applications for mandated certifications and successful applicants are contacted to schedule two tests:

- The Cooperative Personnel Services Aptitude test is a multiple choice, general aptitude test. It addresses mathematical, reading comprehension, mechanical, and interpersonal skills.
- The Occupational Specific Firefighter test assesses the candidate's capacity to work under stress in a team environment and respond effectively to commands.

These tests require candidates to pay a \$225 fee and are conducted by a third-party organization under contract to the OFS. Successful candidates that have achieved a score of 70% or higher on each test are called for first interviews. Usually, there are 500 twenty-minute interviews and they are conducted by a panel of two OFS training officers. Each candidate is assigned a score by the panel. Candidates that passed the tests and the interview are the put on a list. The list of roughly 400 candidates is ranked based on the scores and is drawn upon for the next two years.

Two times a year, in the spring and fall, the top 30 or so candidates on the list are contacted for second interviews. The number interviewed is based on the number of firefighters required. Second interviews are typically conducted by the OFS Training and Recruitment Division Chief and the Deputy Chief of Safety and Training, or other senior OFS leaders. The process of second interviews lasts approximately one week. Each interview takes one hour plus subsequent documentation time.

Roughly 80% of candidates pass their second interview. Up to 24 candidates can be accepted and hired into the OFS training process each session. If more than 24 candidates pass, the lowest ranked successful candidates are asked to wait for the next training session.

After the interviews and prior to hire, successful candidates must complete the Candidate Physical Ability Test (CPAT) at a cost to candidates of \$469. This test is preceded by an orientation and practice sessions. The CPAT is an internationally recognized exam with eight pass or fail components. OFS also conducts background checks, and medical evaluations. Upon hire, the new employees commence the 14-week paid OFS training process.

In addition to it being lengthy, typically eight to nine months duration, the recruiting process is also highly resource intensive. The process also does not require candidates to be pre-qualified to any recognized standard (i.e. National Fire Protection Association (NFPA) standards) despite there being options for pre-qualification of new hires. These

pre-qualification options could include college programs which provide training to NFPA standards such as programs offered through La Cité and Algonquin College.

Additionally, the Ontario Fire Administration Incorporated, based in Ajax, Ontario provides standardized testing and has created a pool of NFPA certified individuals who are recruited by other fire services in Ontario, such as the cities of Toronto, Kitchener and Mississauga. In the absence of pre-qualification requirements, the OFS assumes the burden of training new hires to NFPA standards.

OFS senior management acknowledge the inefficiencies in the current recruiting process and have taken initial steps to undertake a Recruitment and Hiring Strategy Review. The objectives of this initiative include a review of best practices and identifying the most cost-effective approach to ensure quality of recruits, diversity and rural firefighter recruitment. This initiative will also include identification of potential short, mid and long-term adjustments to improve the OFS recruitment approach.

Diversity and Inclusion background

The City's Diversity and Inclusion (DI) Branch within the Human Resources department provides strategic advice, tools, and resources to implement the City's corporate diversity and inclusion plan. This plan maps out initiatives that are to be undertaken to enhance the representation of diversity groups and build an inclusive workplace that is reflective of the community being served.

The DI Branch provides support to departments in the development of departmental specific plans which include specific activities within their lines of business to address issues of inclusion and workforce representation. Each City General Manager is accountable for their diversity plans as well as increases or decreases in representation within their departments.

Beyond its advisory role, the DI Branch monitors and measures current diversity levels across four groups: women, visible minorities, indigenous peoples, and disabled populations.

Departments are mandated to provide an annual diversity and inclusion plan. In 2017, DI Branch made four non-binding recommendations for the Emergency and Protective Services Department. These recommendations focused on recruitment and hiring, retention, and self-identification. In response to the recommendations for the Emergency and Protective Services Department, we found that the OFS has undertaken the following actions.

Table 1: OFS actions in response to DI Branch recommendations

DI Branch recommendation	OFS actions
Targeted recruitment for competitions in under-represented occupations (objective increase diversity of applications)	<ul style="list-style-type: none"> • OFS Recruitment Campaign - Courage Has Many Faces was designed to encourage non-traditional demographics to apply to the Fire Service. • CAMP FFIT - (Female Firefighters in Training) - one-week camp, run annually since 2010, designed to educate young women about the career of firefighting.
Use a diverse hiring panel	<ul style="list-style-type: none"> • No action taken
Apply inclusive selection and interview processes	<ul style="list-style-type: none"> • No action taken
Review applicant self-identification diversity questionnaire data	<ul style="list-style-type: none"> • OFS reviews self-identification information after candidate interviews have been completed

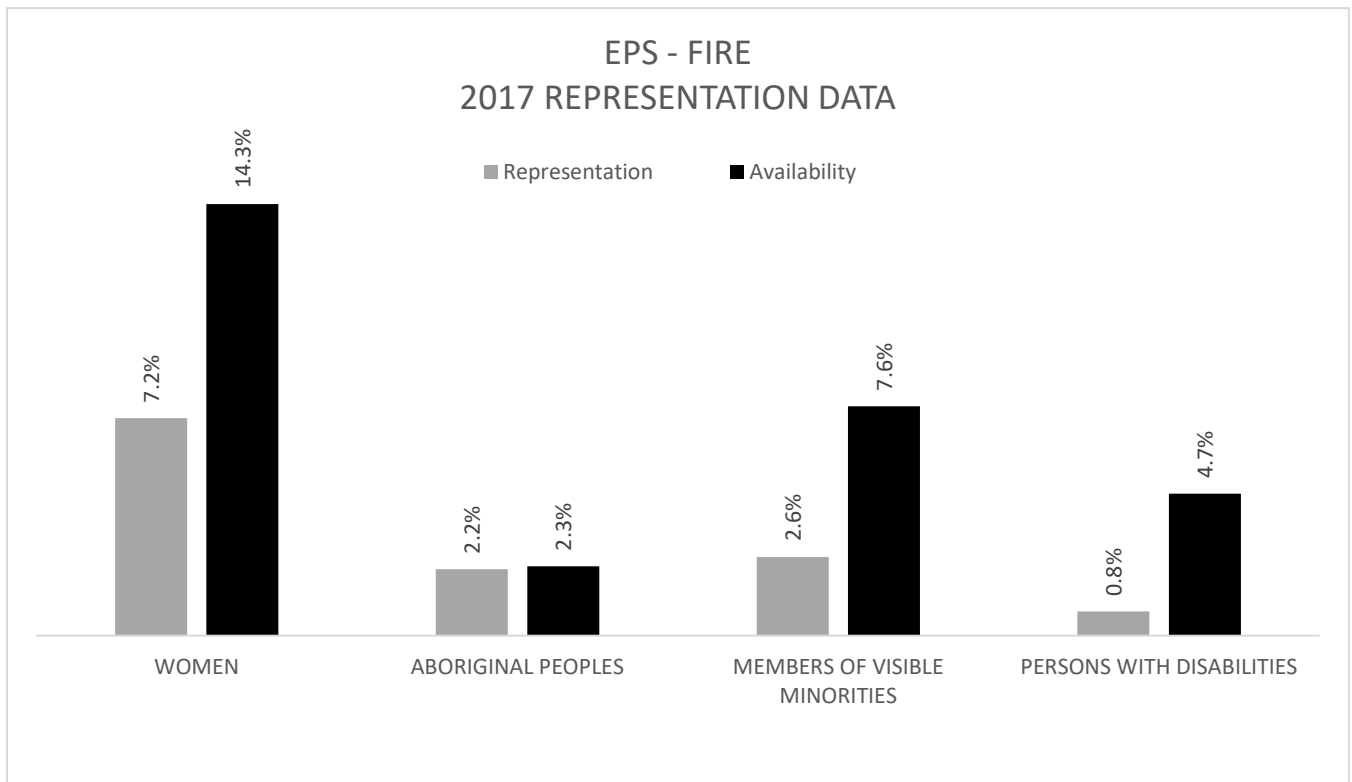
As an organization within the Emergency and Protective Services Department portfolio, the OFS does not have its own specific diversity goals. OFS also does not provide any reporting to Council related to the progress of its diversity and inclusion efforts.

The OFS application intake process provides applicants with the opportunity to self-identify through the online portal. We found that the OFS does not review self-identification diversity questionnaires as part of the intake process. This information is only reviewed once management interviews have been completed, a point in the recruiting process at which the pool of 1,500 – 2,000 applicants has been reduced to the approximate 60 – 100 candidates. Review of this information earlier in the process could provide senior management with additional insight into the diversity of its applicant pool in order to advance the representation of diversity groups within the OFS.

Current diversity of OFS workforce

Currently, there are opportunities to improve the representation of diversity groups within the OFS. Based on 2017 data comparing the available workforce to the OFS workforce (Chart 1), women, members of visible minorities and persons with disabilities are underrepresented on the OFS workforce.

Chart 1: 2017- Comparison of OFS workforce diversity to workforce availability²



Diversity of OFS recruiting process applicants

The bi-annual recruiting process represents the primary pathway for OFS hiring and for influencing the overall diversity of the OFS workforce.

In relation to the intake stage of this recruiting process, based on self-reported applicant data for 2016 and 2018 (Table 1), the OFS is making progress in attracting a more diverse pool of applicants.

² Emergency Preparedness Services Representational Data 2017 Presentation – City of Ottawa DI Branch representatives confirm that workforce availability data was sourced from the Government of Canada’s Workplace Equity Information Management System (WEIMS).

Table 2: Comparison of the diversity profile of applicants from the 2016 and 2018 OFS recruitment campaigns

Recruitment statistics 2016	# 2016 applications ³	% of 2016 applications	# 2018 applications	% of 2018 applications	% increase or decrease	City demographic profile ⁴	Under-represented work force availability OFS 2017 ⁵
Total Number	1,841	100.0%	2,054	100.0%	0.0%	100.0%	
Male	1,294	70.3%	1,555	75.7%	0.0%	49.0%	
Female	206	11.2%	223	10.9%	0.0%	51.0%	14.3%
Minority	122	6.6%	201	10.0%	3.0%	26.0%	7.6%
Indigenous	65	3.5%	73	3.6%	0.0%	2.6%	2.3%
LGBTQ+	62	3.4%	93	4.5%	1.0%	N.A.	N.A.
Disabilities	30	1.6%	34	1.7%	0.0%	4.6%	4.7%

For example, the percentage of applicants identifying as being a member of a visible minority has grown from 6.6% in 2016 to 10.0% in 2018. This compares favourably to the 7.6% amount reported as representing the workforce availability of this group.

Based on this data, however, there remain opportunities to improve the diversity of the OFS applicant pool, particularly for women who remain underrepresented in relation to workforce availability.

³ Aggregate statistics of self identified applications received by the OFS; percentage calculations based on self identification; 82% of applicants self-identified during each of the 2016 and 2018 intake processes.

⁴ Statistics Canada - 2016 Census Results for the City of Ottawa.

⁵ Workforce availability data referenced in Chart 1. Figures provided by City of Ottawa DI Branch representatives who confirmed that information was sourced from the Government of Canada Workplace Equity Information Management System (WEIMS). Figures represent the workforce availability for specific underrepresented target groups, accordingly males, as not an underrepresented group, are excluded. N.A. indicates that information was not available.

Diversity of OFS recruiting process hires

As the OFS had not yet completed its hiring related to its 2018 recruitment campaign, we compared the diversity profile of the actual hires from the 2016 campaign in relation to the diversity profile of applicants for that year (Table 2).

Table 3: Comparison of diversity profile of 2016 applicants to hires

Recruitment statistics 2016 - 2018	Initial applications	% initial applicants	Hired⁶	% hired applicants
Total Number	1841	100.0%	70	100.0%
Male	1294	70.3%	63	90.0%
Female	206	11.2%	7	10.0%
Minority	122	6.6%	1	1.4%
Indigenous	65	3.5%	0	0.0%
LGBTQ+	62	3.4%	1	1.4%
Disabilities	30	1.6%	0	0.0%

While this data represents the results of a single recruiting campaign and does not reflect any improvements that may be realized in relation to the 2018 recruiting campaign, the 2016 data suggests that the hiring process is screening out proportionately more members of diversity groups.

OFS senior management recognize this issue and are actively involved in final candidate interviews and hiring decisions with a goal to ensure that there is no bias in the process and that only the most qualified candidates are hired. Notwithstanding these management actions, OFS leadership have not yet acted upon DI Branch recommendations focused on reducing bias in the recruiting process including the recommended use of diverse hiring panels and application of inclusive selection and interview processes.

⁶ Aggregate statistics of hired candidates' profiles compared against initial application self identification information.

Recommendation #2

That the City conduct a thorough evaluation of the OFS recruitment process and framework to ensure the most effective and efficient use of City resources while ensuring the highest quality of recruits, with consideration for diversity and inclusion.

Management response:

Management agrees with this recommendation.

OFS is committed to the principles of diversity and inclusion. OFS has initiated a review of its recruitment and hiring strategy, which includes benchmarking, identifying current challenges and possible solutions to identify the most efficient and cost-effective approaches to attract the highest quality of recruits with consideration for a diverse workforce. This review is underway and will be presented at the Community and Protective Services Committee no later than Q2 2020.

Recommendation #3

That the City initiate regular reporting to Council on the status and effectiveness of OFS workforce diversity approaches.

Management response:

Management agrees with this recommendation.

Additional information with respect to recruitment and diversity will be highlighted in the Ottawa Fire Services annual report to Council.

Audit objective #3

The 2016 City reorganization introduced a portfolio approach to the delivery of emergency response services wherein OFS information systems technical support staff levels were reduced or transferred to the Emergency and Protective Services Department who now provide information systems support to the OFS. The OFS is reliant on information systems to support the timely capture of data used to support management of OFS operations and to support suppression response teams in their day-to-day activities.

As such, the audit expected to see that OFS information systems are adequately supported and maintained throughout their lifecycle including business continuity planning to ensure appropriate systems backup and redundancy. In addition, the audit expected to see that OFS information system users are adequately supported in day-to-

day use of systems and that systems data quality is maintained to support management information needs and decision making.

Overview of key OFS information systems

Key systems identified that support the management of OFS suppression activities include:

- Flexible Data Management System (FDM): supports coordination of a range of OFS activity including fire suppression, fire prevention, training and safety. For example, FDM is the primary source of records management information on incident response times.
- Communications and Dispatch System (CAD): the primary emergency response communication and dispatch system. 911 calls are dispatched to fire response teams via CAD and information from CAD feeds into FDM.
- Radio Communication System: The City recently implemented a new digital radio system (2018) which supports fire response crew communication during response incidents.
- Geographic Information System (GIS): provides routing information, as well as information related on fire hydrant locations. GIS data is fed into Mobile Data Terminals (see below) to support efficient fire response.
- Command Vehicle Mobile Data Terminals (MDT): Enables fire crews to access information from GIS, FDM and communication from CAD. MDTs also enable fire crews to log information about the positioning of assets and incidents directly into FDM.
- Hazmat Data Management System (D4H): An asset management system used by the Hazardous Materials (Hazmat) response team to coordinate the maintenance, calibration and logistical positioning of Hazmat specialized equipment.

Observations on key OFS information systems

Flexible Data Management System – this system acts as the primary source of records management information (e.g. incident response times) and is hosted on City servers. The system does not require 24/7 uptime as fire response is not significantly impacted if FDM is not available for short periods. The City maintains regular back-ups of FDM data and has a redundancy server as well as power back-up provisions in place in case of an outage.

The OFS has a system administrator who also provides training to fire suppression teams on use of the system.

Prior to the 2016 re-organization, FDM data entry by suppression teams was reviewed for quality purposes by an OFS administrative resource that assisted the OFS system administrator at OFS Headquarters. Upon reorganization, this position was transferred to the Emergency and Protective Services Department. As a result, FDM data quality review is now undertaken on an ad-hoc basis. Further, the OFS does not have contingency plans in place for the current OFS system administrator who is responsible for: user training, user support, data quality control, and overall system life cycle management including the implementation of system updates. This reliance on a single individual presents a risk for the OFS. If this person were to leave the OFS with no cross-training or backup in place, the reliability of the system could be endangered.

Communication and Dispatch System - CAD requires continuous application uptime. We found that adequate personnel have been assigned to its support and maintenance. Backup personnel are in place and the OFS has a business continuity plan which includes daily data backups, and a secondary server at its main facility to maintain service in the case of a failure of the primary system. In addition, the OFS has a third system at a secondary dispatch facility that can be activated in the event of a severe disruption that impacts the facility itself. OFS personnel have been trained on and received instructions on how to activate the backup facility in case of failure. Data from CAD is sent to FDM for reporting and tracking of incidents and their response.

Radio Communication System - Radio systems require continuous uptime. OFS radio systems are maintained by the City's Security and Emergency Management branch (SEM) under a service and supply agreement. As the system is managed by SEM, testing of its business continuity plan was outside of our scope. OFS personnel indicated that SEM has contingency personnel and backup systems in place with its vendor. Two OFS technicians have been trained to maintain, replace and provision radios as needed. A backup OFS technician has also been trained in these maintenance activities.

Geographic Information System - GIS does not require continuous uptime as the data from this system (e.g. mapping data) is updated in CAD on a periodic basis, not on a real-time basis. The OFS has a dedicated GIS specialist who is the primary support person for the GIS system. The City IT Business Group provides technical support to the GIS specialist as required. The GIS server is hosted at OFS and data is regularly backed up on to City servers.

Mobile Data Terminals - Mobile data terminals provide visual information to fire leadership and response crews during incident response. Prior to the re-organization the OFS maintained a dedicated IT specialist with expertise on these systems to provision, update and maintain MDTs. Currently these systems are maintained in an ad-hoc manner by available OFS communications staff and are life-cycled through the annual service level agreement with Ottawa Police Service. There is no formal planning that takes place with respect to the management of their life cycle or their daily provisioning and maintenance.

Hazmat Data Management System (D4H) - This system is hosted online and maintained by Hazardous Materials (hazmat) crews themselves. Multiple individuals within the two OFS hazmat teams have been trained on system operation. The system is mainly used to track hazmat assets and for the preventive maintenance and calibration of hazmat equipment. Downtime poses limited risk to hazmat response and overall system updates and maintenance are provided by the system provider, a third-party vendor.

Information technology planning observations

From a broader information technology planning perspective, we found that the OFS does not maintain a formal plan to identify and prioritize information system and technology challenges and opportunities, and guide management's response to addressing its needs. Instead, the OFS engages in a more informal approach to managing risks on an application-by-application basis. As a result, the OFS does not have a comprehensive view of its current and future information system and technology lifecycle needs. Given the varied information technology support arrangements currently in place for key OFS information systems, this presents an opportunity for OFS to ensure that its information technology risks, lifecycle needs and resource requirements are clearly articulated and addressed to support OFS ongoing operations

Overall, OFS has implemented effective back up and business continuity controls for its key information systems to ensure it can maintain an effective response during incidents, however opportunities for improvement exist in relation to its broader information technology planning and information system data quality management.

Recommendation #4:

That the City develop a comprehensive risk-based IT planning process for the OFS, including the identification and monitoring of system lifecycle requirements and support resource requirements.

Management response:

Management agrees with this recommendation.

OFS is currently working on a Technology Roadmap as part of a larger departmental initiative that will define the short, medium and long-term technology priorities for the Service. This includes the implementation of an OFS Business Intelligence Framework, which is intended to allow the Fire Leadership Team to analyze new dashboards of data to make operational and strategic decisions, including technology planning and resource implementation. The OFS Technology Roadmap is expected to launch in Q3 2020.

OFS will also continue to oversee device lifecycle requirements through this new Roadmap, with the strategic assistance of the City's IT Services.