



# **Drummond/North Elmsley Tay Valley Fire Rescue**

## **Fire Master Plan 2020**

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## Executive Summary

The intention of the Fire Master Plan (Plan) is to provide the Drummond/North Elmsley Tay Valley Fire Board (Fire Board) and the Drummond/North Elmsley Tay Valley Fire Rescue (Department) with the information needed to make better-informed decisions regarding life safety services for the Township of Drummond/North Elmsley and Tay Valley Township (Townships), now and for the future.

While the Department provides high-quality services to residents, businesses, and visitors to the Townships, its goals should be to build upon existing strengths, improve efficiencies, and be proactive in responding to anticipated needs to serve the communities effectively.

There are many factors to consider when developing a Fire Master Plan. Each municipality and fire department in the province has unique differences in the community makeup, economic conditions, population, demographics, building stock, fire service delivery and capabilities. The Department is unique in that it responds to two individual townships, each with its variations.

Emergency services are considered an essential service for the Townships, and due to the nature of the work, workers' safety is at a higher risk for impact than other service-type occupations. Therefore, it is vital to protect the volunteer firefighters in smaller communities by ensuring that appropriate and safe equipment is available for service when needed for the Townships' residents, businesses, and visitors, on a 365/24/7 basis. It is also essential to ensure that the volunteer firefighters are respected, reasonably compensated, and provided with appropriate benefits for their service. The Townships, their respective Councils and the Fire Board should continue to see volunteer firefighters as an investment in the future and the services they provide as cost-effective and cost avoidance.

The Plan development process reviewed all aspects of the Department. It considered how the services and resources available would align with the service demands and risks present in the Townships. Unfortunately, there is no easy solution to reduce costs meaningfully while maintaining sufficient protection from fires and other emergencies for the residents, businesses, and visitors; however, there are opportunities to adjust and revise components of the Department to improve effectiveness and implement cost efficiencies.

The Plan provides recommendations to the Fire Board to consider, including policies and procedures to meet legislative requirements, management and administrative support, and infrastructure changes to prepare the Department for current and future needs and associated hazards expected for the Townships.

The Fire Board commissioned The Loomex Group to examine the Department and provide recommendations for the current and future operations to help manage future legislative pressures and the increased community demands for service. The Loomex Group's methodology and approach included:

- A review of the Department organization structure,
- An analysis of the community's current needs, and,
- An assessment to determine if the Department can continue to provide an appropriate level of service.

The Plan has a total of 28 recommendations that resulted from this comprehensive review. These recommendations are based on an analysis of several factors, including current legislation and suggestions for updates to bylaws, agreements, suggested proactive changes to the organizational structure, and Fire Prevention and Training programs.

The review includes a section on how the Department is operating today and recommendations for operating in the future. Included as a recommendation is an organizational structure change that would add a Deputy Fire Chief and additional financial and administrative support for the Administrative Assistant/Treasurer. The advantages of this approach are discussed in the Plan, but one of the contributing factors for the change is the lack of available time from the current Fire Chief and Administrative Assistant/Treasurer to manage the requirements for meeting the legislative needs of the Department.

The Fire Board, Fire Chief, Administrative Assistant/Treasurer, Station Chiefs, officers, firefighters, and Emergency First Responders (EFRs) can all be proud of the service they provide to the Townships. With some investment and a few necessary changes in the next number of years, they will continue the strong traditions they have upheld and will be better able to manage the growing demands of the fire service in the Townships.

The Plan was successful due to the support of several key individuals, including:

- Fire Chief Greg Saunders
- Administrative Assistant/Treasurer Megan Moore

The Plan is a living document that should be reviewed and adjusted annually as the Townships' needs and circumstances change and should be completely updated every five years. Every effort has been made to ensure the information provided is accurate and comprehensive.

**Summary of Recommendations**

IM: Immediate (0-1yr), ST: Short Term (1-4 yrs.), LT: Long Term (5-10 yrs.),  
 OG: Ongoing

<b>Legislation and Bylaws Recommendations Section 4.5 Page 15</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
1. The Establishing and Regulating Bylaws be reviewed and updated as required to reflect the current level of service and submitted to the Fire Board for consideration and approval. Final adoption by both Townships Council is needed.	✓	IM	✓	
2. The Fire Chief review and update as required all fire service bylaws and agreements to ensure they reflect the current level of service provided or received.		ST	✓	✓
3. The Fire Chief establishes a regular schedule to review a few fire service bylaws and agreements annually		ST		
4. In consultation with the Fire Board and Township CAOs, the Fire Chief review applicable legislation and update the Joint Fire Board Agreement, including clarifying each stakeholder's roles and responsibilities.	✓	IM	✓	✓

<b>SWOT Recommendation Section 5.1 Page 17</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
1. The Fire Chief, Station Chiefs and Officers review the SWOT Analysis results and determine how to incorporate comments and suggestions into future Department strategic planning.		IM		



<b>Occupational Health &amp; Safety Recommendations Section 6.4 Page 20</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
1. The Fire Board continues to support the Departments' Firefighter Wellness, Critical Incident Stress Management and Post Traumatic Stress Disorder Programs	✓	OG		
2. The Fire Chief and Station Chiefs review the current procedure of responding to an emergency scene on a fire apparatus as it relates to wearing PPE.	✓	IM		✓
3. The Fire Chief and Station Chiefs should review the procedures of firefighters that respond directly to an emergency scene without PPE and, at a minimum, develop SOGs to set the expectations of the firefighters.	✓	IM		✓

<b>Fire Prevention &amp; Public Education Recommendations Section 7.10 Page 28</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
1. The Department develop and implement a standardized Public Education Program for the Townships to ensure compliance with the FPPA.	✓	IM	✓	✓
2. A Smoke/CO Alarm and Home Escape program is developed, formalized, and adopted through bylaw to ensure compliance with the FPPA.	✓	IM	✓	✓
3. A Fire Prevention Bylaw be developed for both Councils to consider setting regular inspection frequencies based on occupancy type and best practices.		ST	✓	
4. The Fire Chief annually review and update the requirements of the FPPA to ensure compliance.		ST		

Training Recommendations Section 8.5 Page 32	Mandatory	Term	Approval	Budget Impact
1. The Department should continue to participate and support the Countywide recruit training program to ensure a viable recruit base and reduce individual department recruit costs.		OG		
2. The Department establishes a Training Committee to ensure compliance with NFPA certifications and provincially mandated training. The Committee should also be responsible for ensuring there are qualified instructors, developing lesson plans, and that Job Performance Reviews for skills sign-off is used		ST		
3. The Department improve the Records Management System to monitor and track completed and mandatory training for compliance, including a yearly review of volunteer performance.		ST		
5. An Officer Development program be established to ensure a bank of Officers and Instructors are meeting the requirements of NFPA and the definition of “Supervisor” under OHSA.	✓	ST		✓
6. A review of the South Sherbrooke Training Site is completed, and options explored to expand the footprint to provide shared resources for the BBDE Station and Countywide departments in the area. There is an opportunity for cost recovery through site sharing with neighbouring departments.		ST		

<b>Future Department Organization Recommendations Section 11.1 Page 47</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
1. The Fire Board approves hiring a Deputy Fire Chief to manage the Training and Fire Prevention Programs and support the Fire Chief's role.		IM	✓	✓
2. The Department implements a new burn permit system that is efficient and requires fewer hours for the Administrative Assistant/Treasurer to manage and includes using the “Who’s Responding” Program.		IM	✓	✓
3. The Fire Board reviews the proposed considerations to reduce the Administrative Assistant/Treasurer's workload either by supporting the position with additional staff or reallocating duties to one or both Township Offices.		IM	✓	✓

<b>Response Time &amp; Resource Deployment Recommendations Section 12.8 Page 59</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
1. The Fire Chief conducts a Station Location Study that includes a response time analysis for relocating the BBD&E Fire Station.		LT		✓
2. The Fire Chief approaches the Perth Fire Department Chief to develop an Automatic Aid Agreement for structure fires in areas where the Perth Fire Department can respond faster.		ST	✓	✓
3. The Fire Board adopts the Rural Home and Estate Subdivision Standard for new construction.		ST	✓	

<b>Water Supply Recommendation Section 13.1 Page 60</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
No recommendations for the Water Supply Section.				

<b>Fire Apparatus &amp; Equipment Recommendation Section 14.4 Page 64</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
1. The Fire Chief explores the possibility of entering an agreement with the Town of Perth to use an aerial device when required.		ST	✓	✓
2. The Fire Chief should develop a lifecycle replacement plan for all fire equipment, based on the Asset Management Plan.		ST		

<b>Fire Stations Recommendations Section 15.1 Page 66</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
1. The Fire Chief conduct a feasibility study on the BBD&E fire station to determine the most cost-effective solution to meet the Department's future needs.		LT		✓

<b>Policies &amp; Standard Operating Guidelines Recommendation 16.1 Page 67</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
1. The Department creates a SOG Committee responsible for reviewing SOGs annually to ensure they are current and reflect the Department's operations.		ST		

<b>Emergency Management Recommendations Section 17.1 Page 69</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
1. Each Township updates its Emergency Response Plan to the Provincial Incident Management System Model.		ST	✓	✓
2. Each Township reviews its Emergency Management Program and explores ways to streamline the process to ensure compliance and reduce the Fire Chief's time commitment.		ST		

<b>Statistics and Records Management Recommendations Section 18.1 Page 71</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
1. The Administrative Assistant/Treasurer receives training on the current Records Management System program and its functions, including reports.		ST		✓
2. Align Stations' technology via the Records Management System to improve data sharing, and assist with completing training records, allow for a transparent approach to information while improving training records and remuneration reports.		ST		✓
3. The Administrative Assistant/Treasurer review the OFMEM's Standard Incident Reporting manual to ensure that data is being coded correctly for statistical purposes.	✓	IM		
4. As of January 1, 2021, the Department correctly codes responses for the OFMEM's Standard Incident Reporting system.	✓	IM		
5. The Department review applicable provincial legislation to ensure they are	✓	IM		

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<b>Statistics and Records Management Recommendations Section 18.1 Page 71</b>	<b>Mandatory</b>	<b>Term</b>	<b>Approval</b>	<b>Budget Impact</b>
meeting the requirements for Records Management.				

## 1.0 Introduction

The Plan provides a framework for Councils, the Fire Board, and the Department administration to make policy, organizational, capital, and operational decisions affecting the Department for the immediate (0-1 year), short-term (1-4 years) and long-term (5-10 years).

The Plan reflects the requirements of the [Fire Protection and Prevention Act, 1997 \(FPPA\)](#) and other regulations and standards, including the Occupational Health and Safety Act, Ministry of Labour Fire Service Section 21 Guidance Notes, National Fire Protection Standards and the Fire Underwriters Survey and Ontario Fire Marshal's Public Fire Safety Guidelines.

Section 2 of the FPPA identifies the responsibility for fire protection services as follows:

"Every municipality shall, (a) establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention; and (b) provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances."

Further, in Section 2.6.3, the FPPA defines the Fire Chief's responsibility to Council as follows: "A fire chief is a person who is ultimately responsible to the council of a municipality that appointed him or her for the delivery of fire protection services."

The Fire Board is the body that determines the type and level of fire protection services. The Fire Chief's responsibility is to ensure the delivery of the services and provide recommendations to Council for services required to comply with regulations and standards and meet the community's needs.

As a third-party consultant, The Loomex Group has made recommendations in the Plan based on consultations with the CAO's, the Department's administration, officers, firefighters and EFRs, and by reviewing applicable legislation, standards, best practices, and the Ontario Fire Marshal's Public Safety Guidelines. The Loomex Groups' role was to provide comments and recommendations on current and potential issues. The recommendations may or may not be supported by the Departments' administration, some of which may require additional study and consideration.

Councils and community residents expect the fire service to run effectively and efficiently and need to know the fire service's capabilities and limitations given the resources provided. This Plan considers the current and future resources needed to provide the Fire Board approved services and to identify benchmarks to measure service efficiencies. The review also examines the primary functions of the fire service and specific fire department operations, changes that have taken place, and provides recommendations for modifications or improvements, if applicable. An accumulative summary of recommendations is located after the Executive Summary in the Plan.

## 2.0 Approach and Methodology

The Loomex Group brought together a Project Team expressly suited to complete the Plan for the Department. The Project Team included experts with direct experience managing emergency and fire services departments, conducting organizational reviews, and developing strategic plans. Their expertise, knowledge, dedication, and commitment to community life safety is apparent throughout this document.

The Loomex Group's approach and methodology to the work scope included a background review of documents and maps, direct observation of the environment, and Department and Townships staff engagement. This approach is essential for developing the Plan, and The Loomex Group believes that stakeholder engagement is an instrumental component of the Fire Master Plan process. The following list outlines the steps that led to the development of the final plan.

1. Establish Terms of Reference
2. Stakeholder Engagement
3. Strengths, Weaknesses, Opportunities and Threat (SWOT) Analysis
4. Data Collection, Review and Analysis
5. Completion of Community Risk Assessment
6. Fire Master Plan

### **Establish Terms of Reference**

The Loomex Group met with the Fire Chief and the Administrative Assistant/Treasurer for the Department to review the scope of work and establish the terms of reference for the project. It is critical to ensure that everyone understands the scope of work, timelines, and deliverables at the project start. The Project Team developed a framework to meet the Plan's requirements reviewed and approved by the Fire Chief.

### **Stakeholder Engagement**

The initial engagement session was conducted by meeting with the Fire Board, the Fire Chief, the Administrative Assistant/Treasurer, the Station Chiefs and the department's officers, firefighters and EFRs.

The goal of the meeting was to:

1. Introduce the project team,
2. Present the framework for the project and,
3. Outline the role of each member of the project team and their contributions to the plan.



Following the initial meeting, the Project Team conducted further stakeholder engagement sessions with the Chief Administrative Officer's (CAOs) from the Townships, the Fire Chief, Station Chiefs, Training Officers, and the officers, firefighters, and EFRs from the stations.

### **Strengths, Weaknesses, Opportunities and Threat (SWOT) Analysis**

An essential part of the work and analysis scope was the SWOT sessions. Members of the Project Team met with the two Station Chiefs and conducted a series of sessions with each station's officers, firefighters, and EFRs. During the sessions, the Project Lead asked a series of questions related to the Department's strengths, weaknesses, opportunities, and threats. Those unable to attend a session could provide input and feedback through an online survey or a face-to-face meeting.

### **Data Collection, Review and Analysis**

The Loomex Group worked with the CAOs, the Fire Chief, and the Administrative Assistant/Treasurer to review and analyze numerous documents that provided relevant and historical information. It is essential to understand the framework and development of current operations to provide recommendations for the Plan. Documents reviewed included:

- Applicable Bylaws
- Asset Management Plans
- Response Protocols
- Operating and Capital Budgets
- Firefighter Compensation
- Applicable Agreements
- Organizational Structure
- Mapping of municipal boundaries, station locations and response data
- Population, development data and studies

When reviewing the data, the Project Team maintained an open-minded approach when examining how the Department conducts business, identifying synergies, and determining opportunities for shared services and cost-savings or cost avoidance recommendations. The areas of analysis include:

- Governance and Applicable Legislation and Bylaws
- Operation and Capital Budgets and Purchasing
- Community Risk Profile
- Community Growth
- Fire Protection Agreements
- Best Practices Per NFPA 1710 & 1720 and Ontario Fire Marshal's Public Fire Service Guidelines
- Administration

- Human Resources, Job Descriptions and Succession Plans
- Recruitment, Retention, and Compensation
- Firefighter Training and Education Program
- Fire Stations, Apparatus and Equipment
- Fleet and Equipment Maintenance
- Fire Prevention Programs (Public Education and Code Enforcement)
- Fire Suppression
- Dispatch and Radio Systems
- Technology and Future Needs

In addition to data collection and stakeholder engagement, the Project Team spent time in the community, observing and reviewing, first-hand, all areas and aspects of the Townships.

### **Community Risk Assessment**

The Loomex Group also completed a Community Risk Assessment as part of the process for both Townships. This document identified risks based on the review of the following profiles:

1. Geographic Profile
2. Building Stock Profile
3. Critical Infrastructure Profile
4. Demographic Profile
5. Hazard Profile
6. Public Safety Response Profile
7. Community Services Profile
8. Economic Profile
9. Past Loss and Event History Profile

### **Fire Services Master Plan**

Meeting with the Fire Chief and Administrative Assistant/Treasurer regularly helped to review the Plan on an ongoing basis. When completed, the draft document was provided to them and Townships' CAOs for comment. After reviewing all comments and updating the Plan, The Loomex Group issued the finalized version to the Fire Chief and presented highlights and recommendations to the Fire Board and the respective Township Councils.

### 3.0 Overview of the Townships

#### 3.1 Township of Drummond/North Elmsley

Located in the heart of Lanark County, Drummond and North Elmsley Townships amalgamated in 1998. The Township includes the communities of Armstrong Corners, Balderson, Beveridge Locks, Cook's Shore, Craig Shore, Drummond Centre, Ebbs Shore, Elmgrove, Ferguson Falls, Glenview, Innisville, McCreary's Shore, McCulloughs Landing, McNaughton Shore, Port Elmsley, Prestonvale, Richardson, Rideau Ferry, Robertson's Shore and Wayside. Ottawa, the closest city, is 55 km to the west and the Town of Perth abuts the western boundary. Neighbouring towns of proximity include Smiths Falls and Carleton Place. The historic Rideau River is to the south and the Mississippi River in the northwest.

The Township's area measures 25,921 hectares, and the Statistics Canada 2016 Census notes a population of 7,773, representing a 3.8% growth since 2011. In the summer months, the seasonal population adds a count of 4,000.

The natural landscape includes many lakes and rivers within the rolling hills and farmlands. The outlying towns of Smiths Falls and Perth provide access to shopping and businesses. As noted on the Economic Development webpage, "the Township is considered the southern gateway to Lanark County's Maple Syrup Trail."

#### 3.2 Tay Valley Township

In 1998, the Tay Valley Township amalgamated Bathurst, South Sherbrooke, and North Burgess. The Township is the southwest corner of Lanark County in eastern Ontario and includes the communities Balderson, Armstrongs Corners, Brooke Valley, and Rokeby. The Tay River, the namesake of the Township, is a tributary of the Rideau River that runs through the Township. There are also many other lakes and rivers throughout. Ottawa is slightly 80 km to the northeast, and the Kingston border is 70 km to the south.

The 2016 Census notes Tay Valley Township has a population of 5,665, which is a slight increase of 1.7% from 2011. Seasonal residents comprised mainly of cottage owners increase the Township's population to an estimated 10,000. The Township's total land area measures 550 square kilometres.

### **3.3 Drummond/North Elmsley Tay Valley Fire Rescue History**

#### **Bathurst, Burgess, Drummond, and North Elmsley Townships (BBD&E)**

In the early years, fire protection for the Townships was contracted to the Town of Perth for an hourly fee or for less severe fires; residents would form a bucket brigade to fight the fire. In 1953, the Reeve of Drummond Township, George Smith, approached Norm Hogan to create a new fire department to serve the Townships. Mr. Hogan agreed to form the department and became the first Fire Chief for the BBD&E Fire Department.

A new fire truck was ordered at the cost of \$12,717. Chief Hogan had difficulty recruiting volunteer firefighters in the early years until a grass and brush fire that happened on Otty Lake raised the Department's profile due to saving many cottages from being destroyed by fire.

Initially, the department was housed in the Perth Fire Hall but moved to a building on Herriott Street in 1960 and remained there until a new fire station opened in 1967 at its current location on Sherbrooke Street.

As the calls for service grew for the department over the years, so did the need for fire prevention; under Chief Darou's direction, the department began doing more fire prevention. Chief Darou's saying was, "The biggest part of firefighting is preventing a fire." This progressive thinking was not the norm in the late '60s and early '70s for many departments, and the concept continued throughout the years for the Department, including starting an inspection and pre-planning program under the direction of Chief Jordon.

As with many volunteer fire departments, firefighters for the department spent many hours raising funds to purchase equipment or work on the fire hall or fire apparatus to build a brush truck.

In 1985, the BBD&E department became part of the County of Lanark Rescue Units, where twenty firefighters were trained in advance rescue operations. Today, this program is still in place with a Rescue Vehicle housed at the BBD&E station to provide service throughout the County.

Since the formation of the BBD&E department, there were many significant events, including the Ice Storm of '98, followed by flooding the same year in the spring, but one of the momentous events was forming the Drummond/North Elmsley Tay Valley Fire Rescue in 2006. While the Townships of Bathurst, North Burgess and South Sherbrooke and Drummond North Elmsley had amalgamated in 2002, it took years of discussion and meetings to implement the new Department.

## **South Sherbrooke**

Before 1972, the Township of South Sherbrooke purchased fire protection from the Town of Perth for an hourly fee, like the Townships of BBD& E. In 1972, a group of individuals approached Council about forming a fire department, and the first Fire Brigade started under the guidance of Chief Hubert Warwick.

The department owned a Hale portable pump, some hard suction and a little bit of hose and stored it in the Township Hall basement. Chief Warwick's wife ran the switchboard to make long-distance calls, so it was only natural the firefighters were notified from there when there was a fire.

Once notified to respond to a fire, the pump and hose were loaded in one of the firefighter's trucks and transported to the fire location, where they looked for a water source to hook up the pump.

In 1975, Council officially adopted through bylaw the South Sherbrooke Fire Department. Harry Moore was named the first Fire Chief, and a dedicated group of people joined the new department. Council also approved a new Pumper truck that year, which arrived for service in 1976. A few years later, an additional tanker truck was purchased, and the vehicles were stored in the Roads Garage in Maberly. Five fire phones were also put into place in various locations to answer the resident's emergency calls.

Early in 1990, the department moved to its new locations on the corner of Hwy 7 and Bolingbroke Road. The existing building was a restaurant, garage and gas station and significant renovations converted it to a fire station. The station housed a pumper, tanker and equipment van and remained in service until 2011 when the department moved into its new location on Hwy 7.

Over the years, many members served the South Sherbrooke station; however, the department is fortunate to have Captain Bob Ritchie, one of the founding members, actively serve his community for over 49 years.

In 2006 the BBD&E and South Sherbrooke departments amalgamated together to form the new Drummond/North Elmsley Tay Valley Fire Rescue. Credit goes to the Fire Chiefs, who helped guide the original two departments and the amalgamated Department, for their vision and dedication to the community over the years.

**BBD&E Fire Department**

Norm Hogan  
Harry Smyth  
Arnold Darou  
Harold Jordon  
Eldwin Tysick  
Rick Hannah

**South Sherbrooke Fire Department**

Hubert Warwick  
Harry Moore  
Doug Tysick  
Gord Thompson  
Jay DeBernardi  
Reg Norris

**Drummond/North Elmsley Tay Valley Fire Rescue**

Jay Langley  
Greg Saunders

## 4.0 Legislation, Bylaws, and Agreements

### 4.1 Municipal Liability Policy vs. Operational Decisions for Fire Protection

In the 1989 case of *Laurentide Motel vs. Beauport (City) 1*, the Supreme Court of Canada (SCC) found that the Town of Beauport, Quebec, was liable for a significant portion of the fire loss at the Laurentide Motel which occurred in 1972. This case was precedent-setting in that until this time, municipalities and fire departments were largely considered free from civil liability for firefighting efforts. An important aspect was the issue of “Policy Decisions vs. Operational Decisions” in determining liability. The Supreme Court of Canada’s decision announcement in 1989 cost the City of Beauport over five hundred thousand dollars plus interest.

*“A client's negligence led to a fire that damaged appellants' hotel complex in the City of Beauport. As soon as they arrived, the firefighters sprayed water from the fire truck onto the fire, but the water soon ran out owing to the impossibility of connecting with the hydrants. The latter, which were difficult to reach and covered with snow, were unusable because they were frozen or broken. It was not until some forty minutes later that water was finally obtained from the hydrants. The appellants brought an action for damages against the person who had set the fire and the respondent, alleging fault by the latter in fighting the fire, namely that its equipment had not been maintained and did not function properly, as well as fault by its employees in the performance of their duties.”*

A summary of this case is included as necessary for the Council to consider when making fire protection services decisions. Both water supply and negligence in firefighting operations were issues. There is no question that a client in the motel was responsible for causing the fire. However, the City's failure to maintain and operate effective fire protection services (water supply and firefighting) resulted in them being partially responsible and were allocated most of the costs.

In the ruling, the court determined that a “policy decision” made by Council would be mostly free from liability, as an elected body made it in a manner that the citizens would be aware of (bylaws, council minutes, news reports, etc.). If the citizens were unhappy with the Council's decisions, they had the opportunity to elect different councillors at the next election.

With operational decisions made by departments/employees, the public may not know those decisions and may have limited or no opportunity to question or change the decisions that could adversely affect them.

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<sup>1</sup> Judgements of the Supreme Court of Canada - Laurentide Motel vs. Beauport (City) <http://scc-csc.lexum.com/scc-csc/scc-csc/en/item/436/index.do>

As a result of this Supreme Court decision, many municipalities have revised and updated bylaws relating to fire protection to ensure services and policies are included as a Council's decision rather than the fire department's operational decisions. These bylaws include the "Establishing and Regulating" Bylaw, specifying services provided, service level, fire prevention bylaws, including open burning, false alarms, fireworks, fire routes, and service agreements such as Mutual Aid and Automatic Aid.

## 4.2 Legislation

The Department is guided in its operations by provincial legislation, industry standards (best practices), municipal bylaws, agreements, and policies. The following is a list of the primary legislation and standards:

- Fire Prevention and Protection Act, 1997 (FPPA)
- Ontario Fire Marshal's Public Safety Guidelines
- Emergency Management and Civil Protection Act (R.S.O. 1990)
- Ontario Building & Fire Codes
- National Fire Protection Association (NFPA) Standards
- Occupational Health & Safety Act (OH&S) and Section 21 Committee Guidelines
- Municipal Bylaws
- Corporate Policies and Guidelines
- Department Policies and Standard Operating Guidelines
- Highway Traffic Act
- Municipal Act
- Municipal Freedom of Information and Protection of Privacy Act (MFIPPA)

One of the primary legislations the Townships must comply with is the [Province of Ontario's Fire Protection and Prevention Act, 1997 \(FPPA\)](#). This Act outlines and mandates minimum standards that must be adhered to for providing life safety systems to a municipality. The following are the minimum standards:

- A simplified risk assessment
- A smoke alarm program
- Distribution of fire safety education materials
- Participating in inspections upon complaint or when requested to assist with fire code compliance
- Vulnerable Occupancy Program meets Provincial Regulations

Due to the Department's operating structure under the governance of a Fire Board, it must manage and comply with provincial legislation like the Municipal Act and MFFIPA. A review should be conducted to ensure compliance with any legislation typically managed by municipal staff.



### 4.3 Bylaws

To meet the FPPA regulations and other legislation, each Council approves through an Establishing and Regulating (E&R) Bylaw, based on the Chief Fire Official's recommendations, the established level of service to be provided to residents, business, and visitors. The E&R Bylaw for the Township of Drummond/North Elmsley is Bylaw No. 2012-54, and Bylaw No. 2012-042 for Tay Valley Township. These bylaws form the Department's foundation and structure, how it operates, and which services it offers.

As per the bylaw, each Council approves the following core services for the Department to provide:

- Emergency Response
- Fire Prevention and Public Education
- Fire Administration
- Training and Education
- Maintenance
- Support Services

Upon reviewing these bylaws, they appear to be very comprehensive and applicable to the Department's services; however, to ensure they are current with today's services and reflect any legislation and liability changes, they should be reviewed and updated if required.

A listing of the other bylaws that affect the Department is outlined below, categorized by Township.

#### **Drummond/North Elmsley**

- Bylaw No. 2005-61 Execution of an Agreement with Tay Valley
- Bylaw No. 2006-29 Fire Permit Bylaw
- Bylaw No. 2006-30 Tay Valley and Rideau Lakes Fire Protection Services
- Bylaw No. 06-50 Fire Protection Services Agreement with South Frontenac
- Bylaw No. 2001-27 Fire Protection Services Agreement with Smith Falls
- Bylaw No. 2012-008 False Alarm
- Bylaw No. 2013-060 Fire Protection Service Agreement with Central Frontenac
- Bylaw No. 2013-059 Automatic Aid Agreement with Lanark Highlands
- Bylaw No. 2015-047 Fees and Charges

#### **Tay Valley Township**

- Bylaw No. 2001-27 Fire Protection Services Agreement with Smith Falls
- Bylaw No. 05-069 Execution of an Agreement with Rideau Lakes
- Bylaw No. 05-100 Execution of an Agreement with Drummond/North Elmsley
- Bylaw No. 06-050 Execution of an Agreement with South Frontenac

- Bylaw No. 06-53 Open Air Fires
- Bylaw No. 2011-059 False Alarm
- Bylaw No. 2013-079 Automatic Aid Agreement with Lanark Highlands
- Bylaw No. 2013-78 Fire Protective Services Agreement with Central Frontenac
- Bylaw No. 2015-053 Fees and Charges

The review demonstrated that these bylaws are current for the most part; however, the Department should undertake a comprehensive review to confirm. Developing a scheduled review and update of each bylaw will ensure they remain current.

The study also noted that since the Department provides services to both Townships, there is a duplication of bylaws, creating additional work for both the Fire Chief and Administrative Assistant/Treasurer.

#### **4.4 Agreements**

Under the authority of the FPPA and municipal bylaws, a municipality is permitted to enter into an agreement to either provide or receive a service from another municipality. There are several differences in the requirements, as detailed in the Ontario Fire Marshal's Public Fire Safety Guidelines (PFSG) that are outlined below.

##### **Mutual Aid Plan**

Ontario Fire Marshal's PFSG 04-05-12 states that Mutual Aid plans allow a participating fire department to request assistance from a neighbouring fire department authorized to participate in a plan approved by the Fire Marshal.

Mutual Aid is not immediately available for areas that receive fire protection under an agreement. The municipality purchasing fire protection is responsible for arranging an acceptable response for back-up fire protection services. In cases where the emergency requirements exceed those available through the purchase agreement and the backup service provider, the Mutual Aid Plan can be activated for the agreement area.

Under FPPA and the Fire Marshal's direction, Fire Coordinators establish and maintain a Mutual Aid Plan under which municipalities that serve the designated area agree to assist each other in the event of an emergency. Section 7 of the FPPA states, (1) the Fire Marshal may appoint fire coordinators for such areas as designated in the appointment.

Section 2 outlines duties: A Fire Coordinator shall, subject to the instructions of the Fire Marshal,

- (a) establish and maintain a mutual aid plan under which the fire departments that serve the designated area agree to assist each other in the event of an emergency; and
- (b) perform such other duties as may be assigned by the Fire Marshal.

A Mutual Aid Plan should include the following components:

1. Activate mutual aid during a major emergency where the home fire department is committed and/or the situation cannot be contained or controlled with available resources.
2. Activate the provincial CBRN or HUSAR response system.
3. Activate a county, district, or region automatic aid program (optional).
4. Activate a county, district, or region hazardous materials support response (optional).
5. Activate a county, district, or region extrication support response (optional).
6. Activate a county, district, or region specialized rescue support response (optional).

### **Automatic Aid**

Ontario Fire Marshals PSFG 04-04-12 Automatic Aid states that Automatic Aid Agreements are generally considered in municipal areas to provide first response to a location that has another fire department closer, regardless of municipal boundaries.

The concept of automatic aid is to ensure the closest available assistance is dispatched to an incident to provide the residents with the quickest response to their needs. Automatic Aid reduces the critical element of time between a fire's commencement and an extinguishing agent's application to the fire and possibly minimizing property loss and maximizing residents' protection.

### **Fire Protection Agreements**

Ontario Fire Marshals PSFG 04-09-12 Fire Protection Agreements states that Fire Protection Agreements are contracts between participating municipalities approved by Council to provide or receive fire services at a cost. A municipality may enter into a Fire Protection Agreement for several reasons, including services provided without establishing a fire department, specialized equipment, services, staffing, public education or code enforcement, or the option for multiple departments operating and managing a fire department jointly.

The Department participates in the County of Lanark Mutual Aid Plan and has several Fire Protection Services and Automatic Aid Agreements with other municipalities and organizations to supply or receive services. The main agreements are:

- Fire Protection Services Agreement (Automatic Aid) with South Frontenac
- Fire Protection Services Agreement with Smith Falls
- Fire Protection Services Agreement with Lanark Highlands
- Fire Protection Services Agreement (Mutual Aid) with Central Frontenac
- Fire Protection Services Agreement with Rideau Lakes
- Automatic Aid Agreement with Lanark Highlands

### **Lanark County Medical Assist Response Program**

The Department participates in the Lanark County Medical Assist Response Program, commonly known as Tiered Medical Response, through an agreement between the County of Lanark Paramedic Service and the Lanark County Fire Departments. The contract's basis is to ensure the timely availability of staff and resources to safely and efficiently mitigate a life-threatening medical or public safety incident.

The criteria for tiering the Department for a medical incident is as follows:

1. When a patient has no vital signs, is unconscious, has a compromised airway or has chest pains.
2. When the Paramedic Services response to the incident is greater than 20 minutes.

For the Department, 11.30% of the total calls from 2015 -2019 were Tiered Medical responses.

### **Rescue Services Agreement**

The Department also participates in a Rescue Services Agreement with the County of Lanark to provide Rescue Services to a designated area within the County. The Department offers a location for a rescue vehicle, maintains the vehicle and equipment, and provides the workforce to respond to any rescue type calls that meet the criteria. There are additional rescue vehicles in the Townships of Mississippi Mills and Montague. This agreement is a long-established program that has been in place since 1985 with the County of Lanark.

### **Joint Municipal Service Board Agreement**

The Joint Municipal Service Board Agreement for the Establishment and Operation of the Fire Board is important and outlines the Fire Board's operations and governance. The agreement outlines the following:

- Establishment and Procedures of the Fire Board
- Purpose and Authority of the Fire Board
- Budget and Financial Management of the Fire Board
- Insurance and Indemnification

The review of these documents showed them to be comprehensive and applicable to the Department and the Fire Board's operations. However, there is some confusion about where responsibility lies between the three stakeholders (Townships, Fire Board, and the Department). It would be beneficial for Department operations to review this agreement, including both from a legal and liability perspective, and create a section that clearly identifies each of the stakeholders' roles and responsibilities.

#### 4.5 Recommendations

From the review and assessment of legislation, bylaws, and agreements, it is recommended that:

1. The Establishing and Regulating Bylaws be reviewed and updated as required to reflect the current level of service and submitted to the Fire Board for consideration and approval. Final adoption by both Townships Council is needed.
2. The Fire Chief review and update as required all fire service bylaws and agreements to ensure they reflect the current level of service provided or received.
3. The Fire Chief establishes a regular schedule to review a few fire service bylaws and agreements annually.
4. In consultation with the Fire Board and Township CAOs, the Fire Chief review applicable legislation and update the Joint Fire Board Agreement, including clarifying each stakeholder's roles and responsibilities.

## 5.0 Strengths, Weakness, Opportunity, and Threats (SWOT)

As part of the Fire Master Plan process, a Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis was completed. A SWOT Analysis is a structured planning method that evaluates an organization's strengths, weaknesses, opportunities, and threats. Furthermore, it provides both internal and external information concerning helpful and harmful analysis to achieving the Fire Services objectives.

The analysis included facilitated engagement sessions with the Station Chiefs, officers, firefighters and EFRs at the stations in small groups to ensure compliance with the COVID-19 restrictions. Members unable to attend a session could provide input through an online survey. Overall, the response was good for all sessions.

Nine questions were asked of each group to stimulate a discussion on the past, present, and future of their stations and the Department. The results demonstrated that all members are very dedicated and care about serving their community. The following is a list of common themes that were evident from the SWOT Analysis.

- Officers, firefighters and EFR's are very dedicated and forthcoming about providing professional emergency services for residents in need. They are passionate about providing a high level of emergency services to all residents, seasonal and year-round.
- A strong community bond is evident and reflected in overall participation in community events and prevention activities supporting local businesses and schools.
- There was a consensus that the Department could improve on fire inspections and identifying vulnerable areas. In addition, it was realized that the annual smoke/CO alarm program provides an excellent opportunity to interact with the community and if the program was enhanced, there is even a greater opportunity for this interaction.
- Overall, the analysis revealed there is an excellent satisfaction by the firefighters with both the apparatus and personal equipment that is provided by the Department.
- Generally, Station Chiefs, officers, firefighters and EFRs feel the Fire Board fairly compensates them. However, a more transparent attendance system, which includes a detailed breakdown of each individual annual compensation amount, would be appreciated by the firefighters.
- The NFPA standards provide excellent guidelines for the Department; however, it requires greater time commitment by Training Officers, which could be reduced if there were improvements to the current technology and staff support.
- A more consistent approach is needed to review/follow current or missing Standard Operating Guidelines (SOGs) to ensure consistent training objectives and administration.

## **5.1 Recommendations**

From the review and assessment of the SWOT Analysis, it is recommended that:

1. The Fire Chief, Station Chiefs and Officers review the SWOT Analysis results and determine how to incorporate comments and suggestions into future Department strategic planning.

## 6.0 Occupational Health and Safety

The Departments are governed under the [Ontario Occupational Health and Safety Act \(OHSA\)](#) (Ministry of Labour, 2020), known as the Green Book and the Ministry of Labour (MOL) [Ontario Fire Service Health and Safety Advisory Committee](#), formed under Section 21 of the OHSA.

The Department has an active Joint Health and Safety Committee (JHSC) with both management and worker representatives. The Department representative is responsible for attending Joint Health and Safety meetings, conducting monthly inspections on the fire stations, and represents either the employer or employee for health and safety issues that arise in the workplace.

In addition to meeting the applicable OHSA requirements, the Department's operations must align with the Section 21 Guidance Notes. Recognizing that the nature of firefighting work can put a worker at risk of injury, illness, or death, the MOL established an Ontario Fire Service Health and Safety Advisory Committee in 1989 to handle health and safety issues specific to the fire service. The objective of the committee is to make safety recommendations for firefighters across Ontario. To date, the committee has made over seventy (70) best practice recommendations to reduce the risk to firefighters. The intent is to integrate these recommendations into training programs and procedures for fire scenes or stations and include recommended equipment.

The review discovered that the Department and members take health and safety seriously. For the most part, members feel they are being looked after by the employer, including their need for personal protective equipment (PPE).

The Departments' JHSC between the two stations consists of three workers and two management representatives from each station. The JHSC meets a minimum of four times a year, and the Fire Chief attends at least two of those meetings. Some committee members fill similar roles in their full-time occupations and have received Health and Safety (H&S) training, including certification.

The workplace is inspected quarterly and documented, and the Fire Chief addresses most issues in a timely fashion. The Fire Chief and/or the H&S Committee also updates all H&S matters at the monthly association meetings. Minutes of the meeting and the workplace inspections are posted in the stations and emailed to the members.

Another program recognized over the last several years in the fire service is the firefighters' wellness. Many departments have initiated a Firefighter Wellness Program that promotes fitness, nutrition, and health awareness. The program should also include cancer awareness and prevention due to the high risk of cancers with firefighters, Critical Incident Stress Management (CISM), and Post Traumatic Stress Disorder (PTSD) awareness.



## 6.1 Firefighter Wellness

Firefighter wellness programs have significantly increased for members of fire departments. In the past years, wellness programs were not discussed, accepted, or adequately funded, especially in volunteer fire departments. The Fire Board is liable when a firefighter is injured or dies in the line of duty, but has an even larger obligation and benefit to look after its employees. Promoting wellness and good health among firefighters is also a new concept that can be used for recruitment and retention.

A beneficial wellness program would include:

- Medicals for firefighters
- Access to fitness facilities (internal or public)
- Education and awareness on healthy behaviours, and injury prevention and rehabilitation
- Collecting data

## 6.2 Post Traumatic Stress Disorder (PTSD)

Firefighters deal with the same life issues as all other Township employees; however, they are exposed to events involving trauma, death, and loss regularly throughout their careers. Occupational stress experienced by firefighters can lead to PTSD. It is a mental health issue that some firefighters develop after experiencing or witnessing a life-threatening event, natural disaster, or traumatic events like car accidents or fire. PTSD can also increase firefighters' risk of developing additional mental health conditions like depression, substance abuse, or eating disorders. Most fire departments have had one or more of their members affected by PTSD and sometimes with devastating results.

PTSD is prevalent among firefighters and the fire service since the start of fire departments; however, only recently has the service implemented programs to educate and support its members. Furthermore, the Workplace Safety and Insurance Board (WSIB) now recognizes PTSD as a workplace injury.

The Department recognizes the importance of firefighter wellness, CISM and PTSD programs. Several resources are available for the firefighters, including those offered through a 3rd party service. There is also an initiative with the County of Lanark departments to develop a Peer Support Group for CISM in the coming year.

The Fire Board and the Fire Chief need to support these programs to help firefighters manage mental health issues. The program will also assist with the recruitment and retention of firefighters for the Department.

### 6.3 Firefighter Response

The Loomex Group identified potential issues during the review relating to firefighter safety and the Fire Board's liability. The current practice for firefighters responding to an emergency scene is to travel either in their personnel vehicle or with the fire apparatus. In both situations, firefighters are not wearing the assigned Personnel Protective Equipment (PPE). The Departments' acceptable practice is that all the PPE arrives at the fire scene in a response vehicle, then the firefighters dress, assemble, and begin their tasks at the emergency scene. There is a potential risk of liability that firefighters will perform tasks without the proper PPE before the vehicle arrives and that response vehicles are operating at emergency scenes with firefighters improperly dressed.

This practice has been in place in the Department and with departments within the County of Lanark for an extended period of time. This practice should be reviewed to ensure firefighters' safety and reduce the Townships, Fire Board, and the Fire Chief's liability. The following considerations should be reviewed:

1. Call response from the station via fire apparatus – space is required for firefighters to hang PPE and dress before responding on a fire apparatus, allowing them to be fully dressed and ready when they arrive at a fire scene.
2. Call response direct to the scene – a review of this procedure should be conducted by the Fire Chief and the Station Chiefs that would include looking at best practices and at a minimum develop Standard Operating Guidelines (SOGs) for the firefighters on the expectation of how they will operate prior to having the PPE arrive at the scene.

Any potential changes could impact the culture of the Department and may raise some concerns; however, the risk of firefighters performing tasks on the fire ground without wearing appropriate gear needs to be considered.

### 6.4 Recommendations

From the review and assessment of Occupational Health and Safety, it is recommended that:

1. The Fire Board continues to support the Departments' Firefighter Wellness, Critical Incident Stress Management and Post Traumatic Stress Disorder Programs.
2. The Fire Chief and Station Chiefs review the current procedure of responding to an emergency scene on a fire apparatus as it relates to the wearing PPE.
3. The Fire Chief and Station Chiefs should review the procedures of firefighters that respond directly to an emergency scene without PPE and, at a minimum, develop SOGs to set the expectations of the firefighters.

## 7.0 Fire Prevention and Public Education

### 7.1 Legislation

Public Education and Code Enforcement are municipal responsibilities and as previously mentioned are mandated under the [Fire Protection and Prevention Act, 1997 \(FPPA\)](#). To comply with the Act, a municipality must provide specific fire prevention and protection services and additional services, as is determined by Council, to meet the municipality's needs and circumstances.

Public education and code enforcement for the communities are an essential part of the review and recommendations of the Plan. The fire service traditionally looks at the three lines of defence as fire suppression, code enforcement, and public education. The service is trending to reversing these traditional priorities to public education, code enforcement, and then suppression. This revised focus from traditional priorities does not mean that emergency response is not a critical function of the three defence lines; instead, it emphasizes public education and code enforcement.

Preventing fires is the most effective way to protect lives and property from loss due to fire. While fire trucks and firefighter emergency response attracts public and media attention, public education and code enforcement can significantly impact a community by providing greater fire safety.

Section 2 of the FPPA includes the mandatory requirement for provisions of fire prevention and public education as follows:

"Every municipality shall, (a) establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention; and (b) provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances."

The Office of the Fire Marshal has determined that this requirement also includes the following components:

- A recognized smoke/CO alarm and home evacuation program
- Fire inspections and evacuation for vulnerable occupancies
- Fire inspections on complaint or request
- Public education program
- Completion and maintenance of a Simplified Risk Assessment to determine the risks in the community and the level of fire prevention and emergency response required.

In 2013, two (2) new regulations were introduced under the FPPA that mandate specific fire prevention activities:

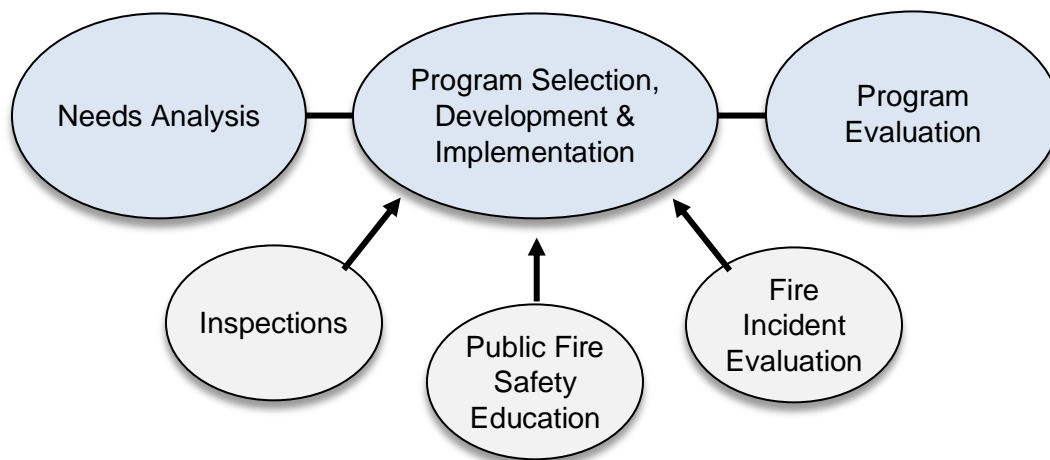
- [O.Reg.365/13: Mandatory Assessment of Complaints and Requests for Approval](#)
- [O.Reg.364/13: Mandatory Inspection – Fire Drill in Vulnerable Occupancy](#)

**7.2 Fire Prevention**

The Ontario Fire Marshal Public Fire Service Guideline PFSC 04-09-12, Fire Prevention Effectiveness Model, sets recommended standards for Fire Prevention and Public Fire Safety Guidelines. The guideline states that the Fire Prevention and Effectiveness Model is a:

- Planning aid that focuses on one of the eight components of the Comprehensive Fire Safety Effectiveness Model
- A tool to ensure all issues are identified and addressed when considering any fire prevention programs or activities or when reviewing existing programs

**Figure 1: Fire Prevention Effectiveness Model per OFMA Public Service Guideline**



The shift of the three lines of defence moved to a more proactive approach to fire and life safety in a community, making it more important than ever to run an aggressive fire prevention program that meets the Townships current and future needs.

In most cases where the suppression staff is required to attend a structure fire, the first two components in the three lines of defence have failed. Responding fire crews should be the last line of defence. When this occurs, it creates the most risk for the community and the responding firefighters and is the costliest of the three defence lines to a municipality.

Statistics show that most fires, injuries, and deaths due to fires are preventable. Yet, municipalities do not fund or provide enough resources for a proactive Fire Prevention Effectiveness Model in many cases. Often, it is due to the allocation of funds to fight the fire or the suppression division. While the Townships cannot reduce their suppression division, cost-savings can be found by reducing the number of fires in the community and reducing the risk for residents, businesses, and firefighters.

### **7.3 Public Education Activities**

The intent of public education activities is to raise awareness of fire safety's importance to the community using various platforms, including presentations, participation at events, and public service announcements.

Participation in community events such as fairs, station tours or fire station open houses provide the opportunity to distribute safety information such as brochures, books, and other fire safety teaching materials. It also provides the opportunity for firefighters to engage first-hand with the public and offers a close-up look at fire apparatus and stations.

The review concluded there is no formalized public education program for the Department and minimal public education activities. However, it does participate with the Perth Fire Department and McDonald's, focusing on the National Fire Prevention theme each year. Because of not having a formalized Public Education program, the Fire Board and the Department could be challenged regarding their compliance under the Act.

### **7.4 Smoke/Carbon Monoxide (CO) Alarm Program**

As was previously stated, having a formalized Smoke/CO Alarm program is mandatory within the FPPA. Most municipalities adopt a smoke/CO alarm program bylaw for their residents. This program needs to include a procedure that ensures that all residents have working alarms whenever the fire department interacts with them, such as during emergency responses, the tracking of working smoke alarms in residences, and a method of keeping statistics of working or not working smoke alarms. Additionally, the program needs to include proactively checking smoke/CO alarms in residences by doing home inspections and home fire escape material for residents, including seasonal or trailer parks.

The Department has a minimal smoke/CO alarm program, with each station doing a blitz once a year, and the firefighters are required to fill out release forms at calls. However, this is not happening regularly, and the compliance of the Department's program would be challenged under the Act.

The importance of having working smoke/CO alarms and fire escape planning cannot be understated and is vital for both Townships, given the geography and travel time required by the Department to respond.

## 7.5 Inspections and Compliance

Code enforcement or inspections for the Townships Department fall into three categories: complaint, request, and routine. Complaint inspections are conducted because of a complaint regarding a possible fire code violation and are mandatory under the FPPA. Follow-up on all complaint inspections includes correspondence in the form of a letter or a note to file. Request inspections are usually conducted for new occupancy, licensing, property sale, and assistance with fire code compliance. Routine inspections are conducted when concerns are brought to the Department's attention by other means (e.g., home inspection program, retrofit, general inquiry, etc.) or undertaken to inspect specific occupancies or areas of the Townships.

The Fire Chief completes inspections based on complaints or requests, which puts the Department in compliance with the FPPA. There is a willingness for Code Enforcement; however, the Fire Chief lacks the required time to be proactive with this program.

Code Enforcement is one of the three lines of defence for providing life safety to the residents. A review of the building stock in the Townships demonstrates that risks are evident, and future considerations are required to invest in a more proactive code enforcement program across the Townships through the development of a Fire Prevention Bylaw that sets regular intervals for inspections on the type of occupancies and best practices.

## 7.6 Vulnerable Occupancies

The Townships has five vulnerable occupancies, including two large homes with approximately 268 residents and one small home of approximately 20 residents and two group homes with six residents.

The review has determined that all the occupancies are meeting the requirements under both the O.Reg.365/13: Mandatory Assessment of Complaints and Requests for Approval and the O.Reg.364/13: Mandatory Inspection – Fire Drill in Vulnerable Occupancy. The Department ensures compliance by annually inspecting the occupancies and conducting the mandatory drills.

## 7.7 Fire Investigations

Fire investigations are a requirement of the FPPA to identify the cause of the fire. If the reason is accidental, information from the inquiry reinforces fire prevention and public education. The preliminary investigation of the cause, origin, and circumstances of a fire is a responsibility of local fire services and is an essential fire protection component. Advanced training in arson detection is critical for fire personnel to determine the origin and cause of fires adequately.

If a fire is determined to be suspicious, the Office of the Fire Marshal and the local police are notified. Arson is a criminal offence and is sometimes used to cover other illegal activities or defraud insurance companies.

The FPPA states that all assistants to the Fire Marshal shall notify forthwith the Office of the Fire Marshal and Emergency Management (OFMEM) of all incidents that meet or that appear to meet the following criteria:

- Fires or explosions resulting in either a fatality or serious injury requiring person(s) to be admitted as in-patient(s) to a hospital (it is the responsibility of the fire department to make every reasonable effort to confirm the status of injured persons transported to hospital prior to the release of the fire scene).
- Explosions (where the explosion is the primary event).
- Fires or explosions suspected of being incendiary (criminal). Discretion may be used when there is no impact on a building(s) or in circumstances where there is no apparent threat to life. These types of fires include dumpster fires, car fires, and wildland fires. All incendiary fires and explosions must also be reported to the Police authority having jurisdiction.
- Fires or explosions where the loss is significant to the community.
- Fires resulting in unusual fire/smoke spread.
- Fires or explosions involving circumstances that may result in widespread public concern (e.g., environmental hazard).
- Fires or explosions in multi-unit residential occupancies where fire spread or explosion impact is beyond unit of origin, or where suspected Fire Code violations have impacted on the circumstances of the event.
- Fire or explosions involving clandestine drug operations or marijuana grow operations.

For the Department, the Fire Chief fulfills the requirements under the Act with determining causes of fires and notifying and working with the Ontario Fire Marshals investigators when required.

## **7.8 Simplified Risk Assessment**

Municipalities have a legislated responsibility under the FPPA to provide public education concerning fire safety and specific fire prevention components. Conducting a Simplified Risk Assessment is the first step towards compliance with these requirements and is intended to identify the information required by a municipality to make informed decisions about the programs and activities necessary to effectively manage the Community's fire risk based on local needs and circumstances.

This risk assessment aims to identify potential fire risks in the Townships and implement educational programs to address those concerns.

Risk is the measure of the probability and consequence of an adverse effect on health, property, organization, environment, or community because of an event, activity, or operation.

Identifying fire and life safety risks in the community and prioritizing based on the probability of occurrence and the impact if occurred, fire departments can determine which risks to address and how best to manage them. Risk assessments allow fire departments to ensure their service level, including their programs, inspections, safety education, and emergency response, addresses the risks identified. It is also essential that their levels of service prevent and mitigates the identified risks.

The Simplified Risk Assessment includes the following components:

- Demographic profile
- Building stock profile
- Information analysis and evaluation
- Local and provincial fire loss profiles

At the time of the review, neither Township has a Simplified Risk Assessment, which puts them in non-compliance with the FPPA.

## **7.9 Community Risk Assessment (CRA)**

While the Simplified Risk Assessment is currently the requirement in FPPA to determine and manage potential risk in a community, Ontario passed a Regulation on July 1, 2019, requiring every municipality to complete a community risk assessment no later than July 1, 2024, under the authority of the FPPA.

### **Under Section 1-4 of the new regulation, Mandatory Use states:**

Every municipality, and every fire department in a territory without municipal organization, must (a) complete and review a community risk assessment as provided by this Regulation; and (b) use its community risk assessment to inform decisions about the provision of fire protection services.

### **Defined in the Regulation in Section 2:**

(1) A community risk assessment is a process of identifying, analyzing, evaluating, and prioritizing risks to public safety to inform decisions about the provision of fire protection services.

(2) A community risk assessment must include consideration of the mandatory profiles listed in Schedule 1.



(3) A community risk assessment must be in the form if any, that the Fire Marshal provides or approves.

**Section 3 outlines when the CRA must be complete (at least every five years)**

(1) The municipality or fire department in a territory without municipal organization, must complete a community risk assessment no later than five years after the day its previous community risk assessment was completed.

(2) If a municipality, or a fire department in a territory without municipal organization, comes into existence, the municipality or fire department must complete a community risk assessment no later than two years after the day it comes into existence.

(3) A municipality that exists on July 1, 2019, or a fire department in a territory without municipal organization that exists on July 1, 2019, must complete a community risk assessment no later than July 1, 2024.

(4) Subsection (3) and this subsection are revoked on July 1, 2025.

**Section 4 outlines when to review (at least every year)**

(1) The municipality or fire department in a territory without municipal organization must complete a review of its community risk assessment no later than 12 months after,

- a) the day its community risk assessment was completed; and
- b) the day its previous review was completed.

(2) The municipality or fire department in a territory without municipal organization must also review its community risk assessment whenever necessary.

(3) The municipality or fire department in a territory without municipal organization must revise its community risk assessment if it is necessary to reflect,

- a) any significant changes in the mandatory profiles,
- b) any other significant matters arising from the review.

(4) The municipality or fire department in a territory without municipal organization does not have to review its community risk assessment if it expects to complete a new community risk assessment on or before the day it would complete the review.

CRAs provide Councils and the fire departments with information to make informed decisions regarding the type and levels of protection services required based on identified risks. Completing a comprehensive assessment requires identifying, analyzing, evaluating, and prioritizing risk, based on nine mandatory profiles.

The Fire Board completed the mandatory CRA in conjunction with the writing of the Plan to ensure their compliance with the new regulations. As the Townships make-up changes from year to year, it is essential to review and update the CRA annually.

Overall, the Public Education and Code Enforcement programs are minimal with the Department, mainly due to time restraints and the Suppression Division's culture. Also, the mandatory FPPA requirements review confirmed that the Townships are not compliant with the Act. The outstanding issues are there are no Simplified Risk Assessment, no formalized smoke/CO alarm program, and no formalized home escape program. These issues need to be addressed, and programs developed or updated to ensure compliance with the Act.

### **7.10 Recommendations**

From the review and assessment of the Fire Prevention and Public Education, it is recommended that:

1. The Department develop and implement a standardized Public Education Program for the Townships to ensure compliance with the FPPA.
2. A Smoke/CO Alarm and Home Escape program is developed, formalized, and adopted through bylaw to ensure compliance with the FPPA.
3. A Fire Prevention Bylaw be developed for both Councils to consider setting regular inspection frequencies based on occupancy type and best practices.
4. The Fire Chief annually reviews and updates the requirements of the FPPA to ensure compliance.

## 8.0 Training

Training is mandatory for safe and effective fire department operations and is an on-going requirement to maintain skill levels. Under the [Occupational Health and Safety Act](#), employers are obligated to provide training to employees.

### **The Act states the duty of the employer is to ensure that**

- Equipment, materials, and protective devices as prescribed are provided.
- Equipment, materials, and protective devices provided by the employer are maintained in good condition.
- Measures and procedures prescribed are carried out in the workplace.
- Without limiting the strict duty imposed in the above bullets, an employer shall provide information, instruction, and supervision to a worker to protect the worker's health or safety.

The review showed that the Department's training program is based on the [National Fire Protection Association \(NFPA\)](#) standards as the necessary training for all members. Specialty or advanced training uses other standards such as NFPA 472: "Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents."

Some additional training required includes training mandated by the Province of Ontario Regulations such as:

- Incident Management System for Emergency Management
- Accessibility for Ontarians with Disabilities Act (AODA)
- Workplace Harassment
- WHIMIS
- Ontario Health and Safety Act (OH&S)
- Other Ontario legislated training as required

The review of these provincially mandated training showed most of the mandatory training is not being completed by the Department.

## 8.1 Training Committee Structure

The responsibility falls within the Fire Chief's duties to oversee and manage the training program in the current training structure and is achieved with assistance from the Training Officers at each of the Stations. In conjunction with Station Chiefs and Captains, the Training Officers outline the weekly training schedule for 3 to 6 months. They remain flexible in delivery in consideration of available resources, instructors, and seasonal impacts. They are also responsible for the delivery of most of the activity on designated training nights. Noted during the SWOT Analysis, firefighters would like to see more joint training. Further identified was the Chief and Training Officers' need to ensure that instructors develop and provide a formal lesson plan or outline to follow during training.

## 8.2 Recruit Training

Currently, the recruit program is conducted as a two-part system. Initially, individuals apply to the Department and are selected through an intake process that allows the Department to screen and select candidates. The process involves a structured 5-part process, as indicated below:



Successful applicants are selected to attend the Countywide shared recruit program. This program is generally scheduled in either the first of a year or the fall to meet required demands. Typically, between 10-15 individuals attend the program based on the individual requirements within the County. As part of Lanark County, the Department participates in a shared program with other Fire Services. The Recruit program is organized and managed by the County departments, with various municipalities participating based on individual recruitment requirements.

A group of lead instructors from various County departments is utilized to ensure that no one department is burdened by conducting the entire program. The other advantage of this program is that it provides diversity in training for the students, standardized and shared certified instructors and reduced costs for all departments. Furthermore, many departments may have difficulty ensuring a bank of qualified instructors and the required time commitments, leaving this a viable option within the County.

Recruits are advised that the training is off-site and involves a 12-15-week commitment. On completion, each recruit is certified to NFPA Firefighter 1 (FF1) and Hazardous Materials Awareness and Operations.

Upon return to their various Department's, recruits are encouraged to obtain NFPA Firefighter (FF2) and First Aid training. This is seen as a shortfall, as the process to obtain the next levels are not always attained in a timely manner and places a burden on the Department to ensure compliance with the NFPA standard.

### **8.3 In-Service Training**

Regularly scheduled Department training, known as in-service training, reflects standardized, needs-based, and specialized training. In-service training takes place two nights per month, and a predetermined schedule is reviewed with Training Officers.

All Firefighters and Officers are expected to train to current NFPA standards. Specifically, FF1, FF2, and Hazardous Materials training. This requires dedicated lesson plans and adherence to NFPA's Job Performance Reviews. Furthermore, regular training for First Aid, Health and Safety and specific recertification places a heavy burden on in-house training.

During the SWOT Analysis, it was identified that Training Officers have an increased role and responsibility to ensure adequate training and compliance with NFPA standards. Also noted was the requirement to ensure that the Training Instructors meet the required level of expertise for both theory and practical training.

Given the level of training required, a suggestion was posed for access to resource materials, and online learning would allow improved training and increased participation opportunities.

It is evident that without the dedicated volunteers (Training Officers) help to coordinate, lead instructors, and to ensure proper lesson plans for necessary training, compliance is not sustainable.

### **8.4 Officer Development**

Officer development is a challenge that needs addressing to ensure that Officers meet the requirements of a competent Supervisor in the H&S Act. The Department must ensure that Officers fall within the legislative requirements to reduce liability and exposure.

Promotion to an Officer position should be based on merit and qualifications. While it is a challenge for many departments due to the massive time commitment placed on volunteers, Officer development is essential and mandatory to ensure that individuals are qualified to assume such positions.

The review with the Training Officers showed that the group is very dedicated and doing the best they can with the knowledge and time available to fulfill the tasks required. They are expected to strategically plan the training program with the Fire Chief and develop/deliver the program; this is a very daunting task, given that it is done on a volunteer part-time basis.

Specific opportunities for Officers training do exist with support through Countywide training programs. Furthermore, Officer courses have also been identified at locations like; Leeds Thousand Islands Emergency Services Training Centre and Ontario Fire Marshal & Emergency Management (OFMEM); however, they still require a significant time commitment. The major issue for volunteers is attending off-site courses for Officer development and the time commitment involved away from their primary jobs.

## 8.5 Recommendations

From the review and assessment of Training, it is recommended that:

1. The Department should continue to participate and support the Countywide recruit training program to ensure a viable recruit base and reduce individual department recruit costs.
2. The Department establishes a Training Committee to ensure compliance with NFPA certifications and provincially mandated training. The Committee should also be responsible for ensuring there are qualified instructors, developing lesson plans, and that Job Performance Reviews for skills sign-off is used.
3. The Department improve the Records Management System to monitor and track completed and mandatory training for compliance, including a yearly review of volunteer performance.
4. An Officer Development program be established to ensure a bank of Officers and Instructors are meeting the requirements of NFPA and the definition of "Supervisor" under OHSA.
5. A review of the South Sherbrooke Training Site is completed, and options explored to expand the footprint to provide shared resources for the BBDE Station and Countywide departments in the area. There is an opportunity for cost recovery through site sharing with neighbouring departments.

## 9.0 Current Department Organization

### 9.1 Department Overview

The Department is governed by a Fire Board and managed by a full-time Fire Chief with a full-time Administrative Assistant /Treasurer and two volunteer Station Chiefs. The Department provides fire and life safety services to the Townships and is comprised entirely of volunteers. The funding to operate the Department comes from both the Townships based on a cost-sharing model based on various percentages.

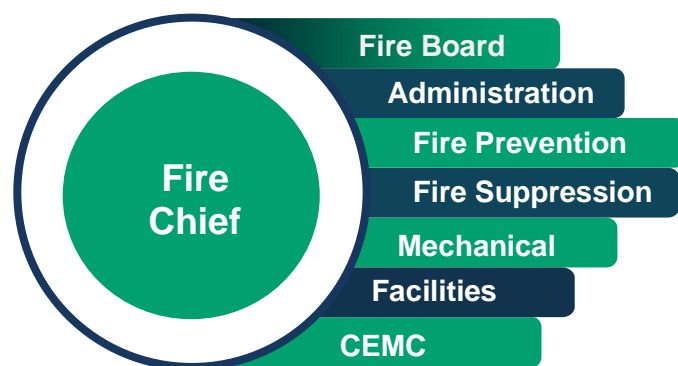
As per an updated agreement signed on September 22, 2015, the Fire Board operates through a Joint Municipal Service Board Agreement comprised of three representatives from each Township Council. The agreement establishes the Fire Board’s procedures and operations, how the Board Chair is selected, and the number of meetings required per year. The Administrative Assistant /Treasurer reports to both the Fire Board for the Secretary/Treasurer’s duties and the Fire Chief for the Department administration duties. Further details are provided in the sections below.

### 9.2 Fire Chief

The Fire Chief is responsible for all Department operations, including fire prevention programs, code enforcement, suppression activities, fleet and equipment, and facilities, like other fire chief positions at other Ontario departments. The Fire Chief is the primary source for community interaction, except for emergency response, and plays a vital role in the Emergency Management Program for both Townships as the Community Emergency Management Coordinator (CEMC).

The Fire Chief is also responsible for managing approximately 50 volunteer officers and firefighters, which is very demanding. Due to the title of a volunteer firefighter, there is a misconception that it is different if a supervisor manages the same number of part-time or full-time employees. Motivating and managing volunteer firefighters takes added time and a skill set that not all supervisors have due to the job's complexity and adherence to legislation.

**Figure 2: Fire Chief Responsibilities**



### 9.3 Administrative Assistant/Treasurer

The Administrative Assistant/Treasurer position is unique compared to most fire departments in the Province. This position is responsible for the Department's administration, finances and governance. Additional responsibilities include the Secretary/Treasurer's role for the Fire Board, which entails managing the Board's finances and administration, including agenda and minute taking and correspondence. The following are the responsibilities outlined in the job description for the position:

#### Administration Responsibilities:

- Correspondence activities (reception, telephone, and mail)
- Administrative support (preparation of proposals, quotations, and tenders)
- Meeting/activities management
- Maintenance of files and the electronic Records Management System, including the issuance of fire permits, burn activations, inspections, invoices, etc. as directed
- Inventory and management of supplies and restock as necessary

#### Finance Responsibilities:

- Financial management for the Department
- Accounts payable/receivable, including payroll
- Preparation of quarterly statement of accounts and monthly budget updates
- Liaison with WSIB, OMERS, CRA and other relevant agencies
- Preparation of annual audit documentation
- Performs work as directed by the Fire Board

Furthermore, as with most volunteer departments, the administrative support position spends a considerable amount of time assisting with the volunteer officers' administrative responsibilities, including but not limited to managing fire reports, correspondence, payroll, document creation and proofreading. The position becomes an anchor in the office available for volunteers to reach out to daily.

### 9.4 Station Chiefs

The Department's organizational structure includes Station Chiefs that allow for a "station voice at the administration table." It is both advantageous and disadvantageous and sometimes leads to station-specific decisions versus department-wide decisions.

The Station Chiefs are responsible for managing the officers, firefighters, EFRs, operations, vehicles, facilities within their stations, and responding to emergency calls. Their role is also to be part of the Department's management team and attend additional meetings and training with the Fire Chief as required.



### **9.5 Public Education and Code Enforcement**

Further details regarding Public Education and Code Enforcement are outlined in Section 7.0, Fire Prevention and Public Education. Currently, the Fire Chief is responsible for Public Education and Code Enforcement, and organization and participating in all public education events in the Townships with the volunteer firefighters' support. Additionally, the Fire Chief is responsible for all code enforcement, issuing of orders, and investigations.

A review of the code enforcement program confirmed that the Department meets the minimum requirements under the FPPA by providing inspections upon complaint or request. However, due to time restraints, the Department is not conducting inspections on a proactive basis for the community's risk. Additionally, the Department is not meeting the FPPA concerning public education or the smoke/CO alarm programs. While there is an effort to meet the legislative requirements, it falls short because of not having any formalized programs.

### **9.6 Training**

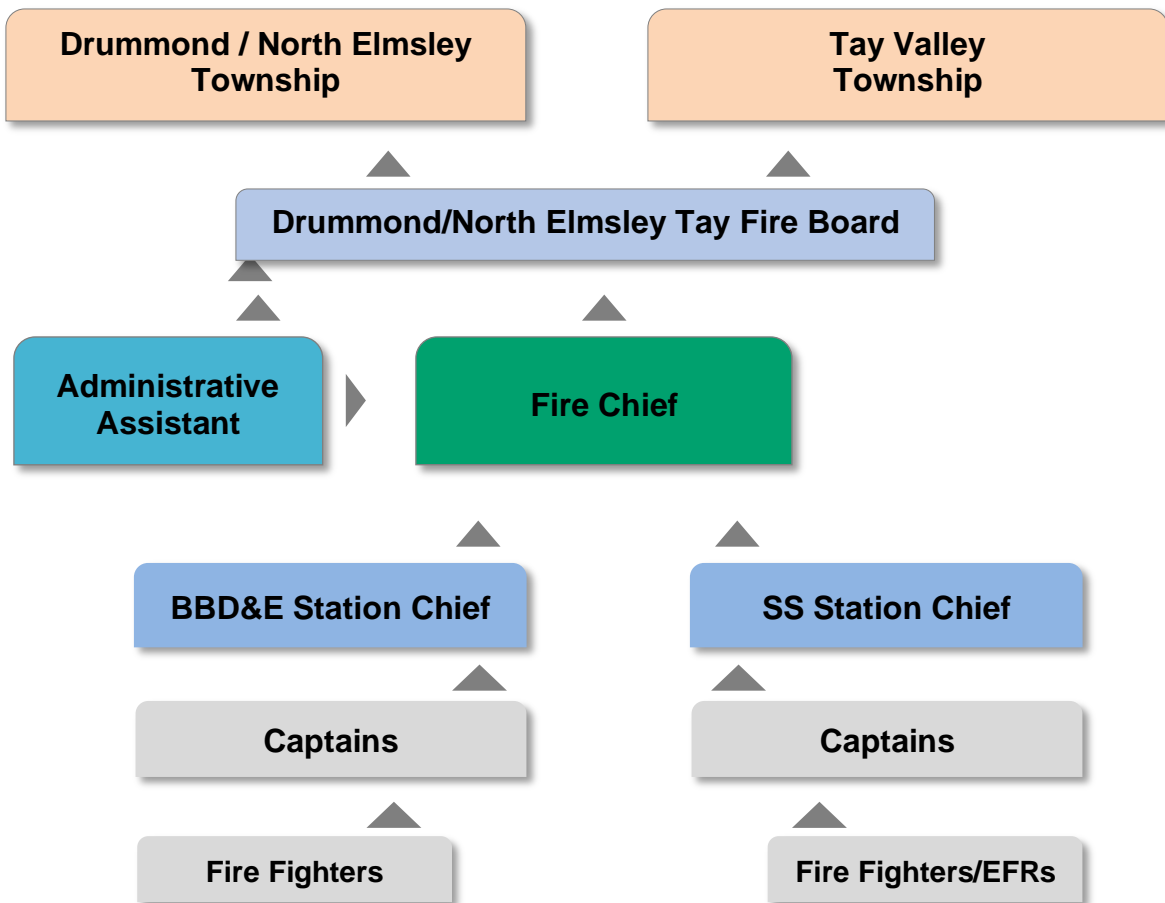
The Fire Chief manages and guides the Training Division. Each station has a designated Training Officer that sets a six-month training schedule based on the NFPA standards and reviews it with the Station Captains. For the most part, the stations are independent of each other except for some joint training done a few times per year. Section 8.0 includes an in-depth review of the training.

### **9.7 Suppression Division**

The Suppression Division is under the responsibility of Station Chiefs supported by five Captains at each station with approximately 50 firefighters. The division provides community service that includes but is not limited to fighting fires, supporting paramedics, attending motor vehicle accidents, performing rescues, and attending alarm ringing. The Suppression Division also supports the Training and Prevention Division by assisting with training instruction and attending many public education and community events as required. This Division can be the costliest to the budget if not supported and appropriately managed.

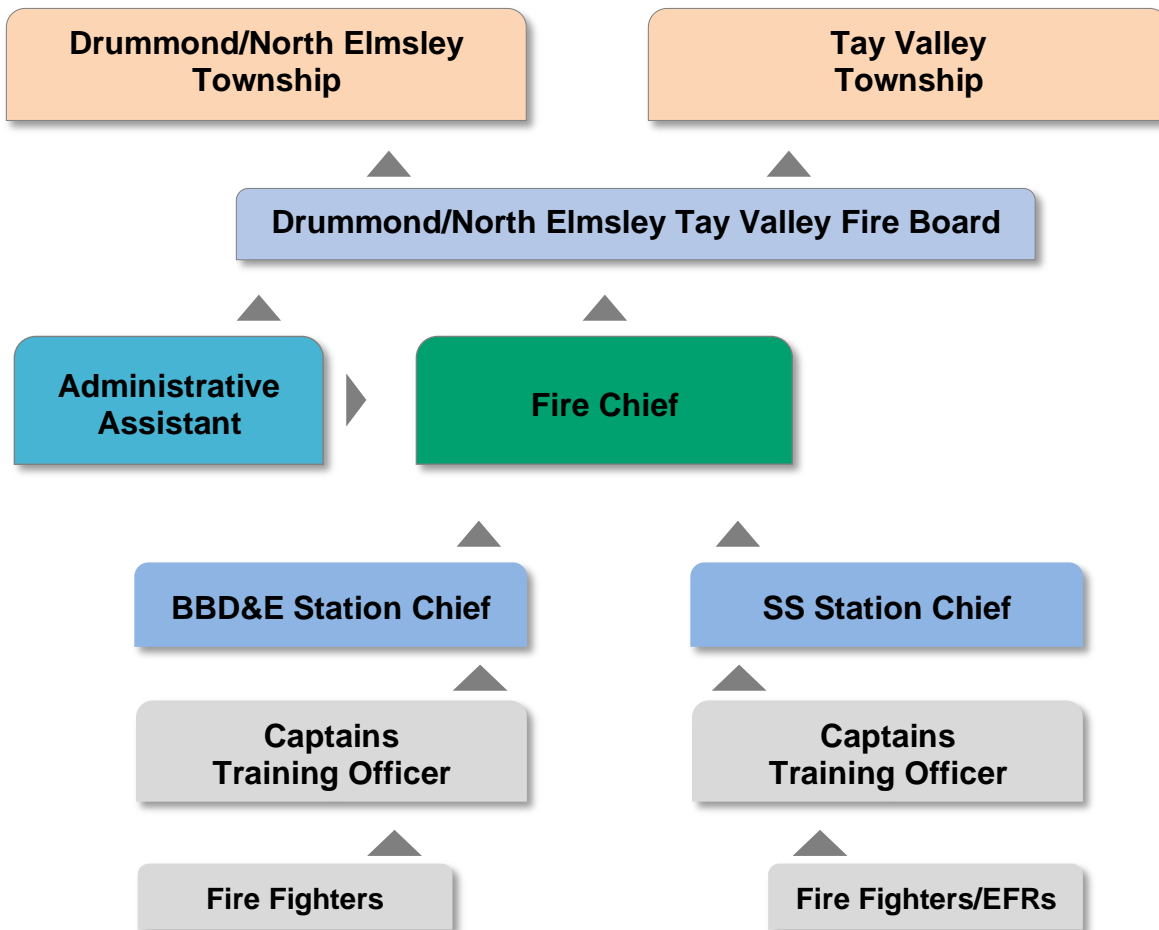
Figure 3 illustrates the organizational structure noted in Establishing and Regulating (E&R) Bylaw.

**Figure 3: Department Organizational Chart Per E&R Bylaws**



Over time, due to changes in the service, the community's expectations, and the Department's responsibility, the Organization Structure has changed for the Department. Figure 4 is the current structure of the Department.

**Figure 4: Current Organizational Structure**



**9.8 Volunteer Recruitment and Retention**

Recruitment and retention are significant problems for many volunteer departments, with an annual turnover of 10% to 20% of volunteers from a department. As a result, within 5 to 10 years, there may have been a complete turn-over of volunteer members, which causes fire departments to spend a significant amount of time and money on recruiting and training new volunteers. Many new volunteer firefighters have limited experience and skills, and due to the high turn-over, there are fewer experienced members to take on the role of Captain to lead the teams. The specialized or advanced training also suffers as time and effort shifts to focus on basic recruit training.

The “volunteer” firefighter term in this report is based on the FPPA, which states:

“volunteer firefighter” means a firefighter who provides fire protection services either voluntarily or for a nominal consideration, honorarium, training, or activity allowance. 1997, c. 4, s. 1 (1); 2001, c. 25, s. 475 (1).

Many fire departments using volunteer firefighters have difficulties in recruiting and retaining those members. The increased requirements for training and certification, the number of calls, and the risks posed by this work have discouraged many individuals from becoming volunteer firefighters.

The Department currently does not fall within the norm of many departments in the Province. The review showed that retention does not appear to be an issue. In 2019 the Department had to recruit only four probationary firefighters, representing less than 1% turnover. This retention is attributed to several factors, including:

- A manageable level of emergency calls
- Good training
- Recognition programs
- Good equipment and fleet
- Appropriate compensation

While retention is not an issue for the Department currently, it is important to monitor on an ongoing basis due to the changes in the Townships' Demographics.

Some of the retention issues the Department should monitor can be found in the article “Where are They Going,” authored by Deputy Chief Ian Shetler for the Association of Municipal Managers, Clerks, and Treasurers of Ontario (AMCTO). The article clearly outlines the challenges associated with this type of department. Table 1 is an informative chart section from the article highlighting why volunteers leave a fire department.

**Table 1: Volunteer Retention and Recruitment Root Causes**

Source of Problem	Contributing Factors
Time Demands	<ul style="list-style-type: none"> <li>• The two-income family and working multiple jobs</li> <li>• Increased training time demands</li> <li>• Higher emergency call volume</li> <li>• Additional demands within the Department</li> </ul>
Training Requirements	<ul style="list-style-type: none"> <li>• Higher training standards and new government requirements</li> <li>• More time demands</li> <li>• Greater public expectation of capabilities (a broader range of services)</li> <li>• Additional training to meet a more comprehensive range of services</li> <li>• Recertification demands</li> </ul>
Increasing Call Volume	<ul style="list-style-type: none"> <li>• Fire department assuming broader response roles (EMS, hazmat, technical rescue)</li> <li>• Increasing emergency medical call volume</li> <li>• An increasing number of automatic alarms</li> </ul>
Change in the “Nature of the Business”	<ul style="list-style-type: none"> <li>• Abuse of emergency services by the public</li> <li>• Less of an emphasis on social aspects of volunteering</li> </ul>
Changes in Sociological Conditions (In Urban and Suburban Areas)	<ul style="list-style-type: none"> <li>• Transience</li> <li>• Loss of community feeling</li> <li>• Loss of community pride</li> <li>• Less interest or time for volunteering</li> <li>• Two-income families</li> <li>• “Me” generation</li> </ul>
Changes in Sociological Conditions (In Rural Areas)	<ul style="list-style-type: none"> <li>• Employers less willing to allow response to calls</li> <li>• Time demands</li> <li>• “Me” generation</li> </ul>
Leadership Problems	<ul style="list-style-type: none"> <li>• Poor leadership and lack of coordination</li> <li>• Authoritative management style</li> <li>• Failure to manage change</li> </ul>

## 10.0 Department Challenges

### 10.1 Fire Chief

The Fire Chief's position in any fire department is the anchor or foundation of the organization. Often, the findings of reviews demonstrate that when a department is not meeting legislative requirements or responsibilities, it is due to overtaxing the Fire Chief's time versus them not knowing what needs to be done; this is the case with the administration of the Department.

The Fire Chief's position is very demanding with responsibilities to the residents, the Fire Board, and the firefighters. Often, the Fire Chief who works with volunteer or part-time firefighters and smaller communities must work after hours and weekends. It is the nature of the position but puts additional stress on the person filling this role and makes this person a "single point of failure" when absent due to vacation, illness or away for training.

Legislation like the Fire Protection and Prevention Act (FPPA) and the Ontario Health and Safety Act (OHSA) does not treat smaller municipalities any different than larger ones. Additionally, eighty-six (86) Ontario Fire Marshal's Public Fire Service Guidelines and sixty-nine (69) of those guidelines are the direct responsibility of the fire chief position. Larger fire departments generally have a budget that allows additional management staff to assist and share the Fire Chief's duties. In most cases, in smaller communities, the workload cannot be eliminated; however, many municipalities have provided the Fire Chief with additional managerial and administrative support to help reduce it.

Under the legislation, municipalities must provide a competent supervisor for crews during an emergency, which is difficult to achieve when the Fire Chief is out of town or sick and places liability on the Fire Board. Furthermore, during a significant event when the Municipal Control Group is activated, there becomes a challenge of what duties the Fire Chief should perform, Emergency Site Manager or a member of the Control Group. Having a second manager would allow splitting the responsibilities and reducing the Townships' liability while providing expertise in different locations as required.

Recruiting and retaining the right Fire Chief is expensive for any municipality, and sometimes this happens too frequently. Fire Chiefs leave and move to other municipalities for various reasons, but one of the primary reasons is the perception of the lack of support from the municipality regarding a "work-life balance." It is proven that it provides the proper service for the residents; employees need to have time off to be free from responsibilities and the constant stress of managing a department while on holidays or off sick.

In the case of the residents, the Townships, the Fire Board, other staff, officers, firefighters, and EFRs have only one person to contact to make decisions, and that is the Fire Chief. Because of the Chief's dedication to the Townships, the current Fire Chief feels obligated to look after whatever the requirement is and be responsible to the residents and firefighters. While this has been the standard practice, it is quickly getting unsustainable.

Providing additional managerial support would reduce the Fire Chief's need to be available 24/7/365, providing a "work-life balance," and ensuring business continuity and risk management for the Townships.

With the current reporting structure, there is a disconnect between the Fire Chief and the Townships' departments that results in a lack of coordination. For example, new buildings or change of use within a building would not necessarily be communicated to the Fire Chief. Similarly, the Fire Chief is responsible to the Fire Board, who manages the position, including performance evaluations; however, the Fire Chief has no day-to-day supervisor. Many departments, including the ones with Fire Boards, have the Fire Chief directly report to a CAO, which helps communication between the Department and the Townships.

## **10.2 Administrative Assistant/Treasurer**

As the only other full-time position for the Department, the Administrative Assistant/Treasurer's challenges are like those of the Fire Chief in that there is not enough time to manage the expectations. A traditional fire department Administrative Assistant position would not be responsible for managing finances, human resources, or performing clerk duties and would be managed at the municipal office.

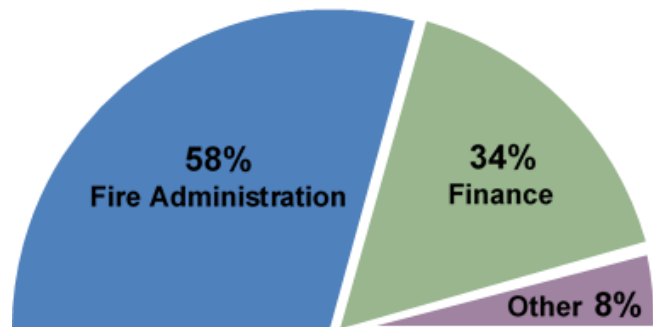
One of the issues with the Townships not having the responsibility of managing some of these tasks is that the Administrative Assistant/Treasurer is not necessarily completing things like the Fire Board's minute taking, according to Provincial guidelines and legislations. It is not the current Administrative Assistant/Treasurer's fault for not being provided with the support or training to ensure the completion of tasks is consistent with the Townships. It also places an unnecessary burden on the Administration Assistant/Treasurer, as it is the expectation for the position to manage all these tasks when the Townships have multiple people with different skillsets managing them.

Due to the Department's lack of additional managerial support, the Administrative Assistant/Treasurer assumes this role in many cases. A Deputy Fire Chief traditionally performs these tasks, thus adding to the issue of not enough time for the Administrative Assistant/Treasurer to do the work required in many cases.

For the review, the Administrative Assistant/Treasurer was asked to complete a time management study for one month. As a result of the study, the following shows the amount of time the Administrative Assistant/Treasurer spends on average weekly.

The study showed that, on average, the Administrative Assistant/Treasurer spends approximately 34% or fourteen hours per week completing tasks that are usually managed by the Townships. The result is not enough hours to complete the Department's regular administrative duties, resulting in many tasks not getting completed on time or only the minimum accomplished.

**Figure 5: Breakdown of Administrative Assistant / Treasurer Time**



The study also showed that the Administrative Assistant/Treasurer spends a considerable amount of time managing the burn permit system daily. During peak open-air burning seasons, it is not uncommon for over one hundred burn permits that must be recorded from the voice mail system.

**10.3 Station Chiefs**

The review and interviews of the Station Chief positions show several challenges. One of the biggest challenges for the role is the added pressures and legislation imposed from the Province, Townships, and residents' expectations. Station Chiefs are also expected to manage and supervise firefighters from a Human Resources perspective.

In the interview with the Station Chiefs, it was evident that although they would like to do more for the Department, family, work, or life is a higher priority. They are expected to be in the on-call rotation with the Fire Chief, but often find it hard to do; thus, it falls back on the Fire Chief.

The administrative demands have increased over the last several years for this position, including documentation and reports.

**10.4 Public Education and Code Enforcement**

Providing Public Education and Code Enforcement for any department is a large task, but it is even harder to manage when the responsibility rests solely on the Fire Chief. This is the case with the Department. It is a struggle to meet the minimum requirements under the FPPA, and the Department cannot develop any proactive programs. Not being compliant with the Act is a liability for the Fire Chief, the Fire Board, and the Townships.



## 10.5 Training

With the new National Fire Protection Association training standards, health, and safety legislation, including the Ministry of Labor Section 21 Guidance notes, the demand and expectation of firefighters across the province, both volunteer and career, has grown. In many cases, this has become a burden on volunteer firefighters. These pressures are transferred to the Training Officers to ensure that the quality of training meets the standards, with proper record keeping, and signoffs tracked to protect the Departments and the Fire Board against the legislation.

Another challenge for both the Fire Chief and the Training Officers is establishing a consistent training program for both stations. Currently, both stations are working independently to set training subjects and sessions. Although the distance between the two stations creates a logistical issue, it would be beneficial and more productive if the training programs were organized with the Training Officers working together more.

## 11.0 Future Department Organization

The Plan review looked at the community's current needs and circumstances, applicable legislation, the existing organizational structure, and each division as to how they are managing the demands. The review determined that, in most cases, due to the dedicated individuals that serve the Department, it is operating at minimum legislative standards. However, continuing with this trend can lead to cost increases if not successful in retaining volunteers, or the service moves from volunteer to career-based firefighters. There is too much pressure placed on the Fire Chief, Administrative Assistant/Treasurer, Station Chiefs, volunteer officers, firefighters and EFRs.

One of the proven methods to improve a department, protect a municipality, and retain volunteers is to expand administration support. The Fire Board needs to look at opportunities to share administrative responsibilities. This approach has a financial impact on the budget initially; however, the investment will result in cost savings and cost avoidance in the future. A shift in the administration structure will also help bring the Department closer together with clear leadership lines to manage both stations as one.

As previously mentioned, the review also highlighted the need to increase the Public Education and Code Enforcement programs and the associated record-keeping. Reducing the number of times a fire apparatus leaves the station means the community is better protected and educated by public education and code enforcement. These program profiles need to increase to achieve this, as do the support staff hours, especially as the Townships grows and the demands for service increase.

The recommended organizational model starts with the proposed hiring of a full-time Deputy Chief to oversee the Fire Prevention and Training Divisions and become the alternate CEMC. By creating this position, the Station Chief's responsibilities decrease, making those positions more manageable, increasing the service level of both the prevention and training programs, and removing some of the fire chief and the Townships staff's emergency management workload.

It is essential that this new position holds a rank, is given the responsibilities that allow them to assist the Fire Chief in managing the Department on a day-to-day basis and assumes the Fire Chief responsibilities during their absence. Providing rank also gives creditability to the Department and provides structure to ensure the position can make decisions that will be followed.

Adding this position would also take some of the Administrative Assistant/Treasurer duties off their work plan, allowing them to have a more manageable workload. The role will also allow the Fire Chief to have a better work-life balance, become more strategic, and move the Department in a more proactive approach instead of reactive.

As was stated in the Department Challenges section, both Training and Fire Prevention are issues with the current structure. Training is not coordinated from a Department perspective, and Fire Prevention programs are, in some cases, not meeting the legislative requirements.

While standardizing the training program is vital for firefighter safety and meeting legislative requirements, a proactive Public Education and Code Enforcement program is paramount to providing life safety for the residents. This position would be responsible for these programs' organization and would work with separate Training and Fire Prevention committees that would be made up of members of each station.

The other recommendation in the new proposed organizational structure is with the Administration Assistant/Treasurers position. The review showed that due to the unique approach to managing the Department, changes must be made to augment this position. Several considerations could assist with supporting the current position.

1. One or both Townships assume the duties typically performed in the traditional municipal structure, including items like finance, payroll, HR, Fire Board minute taking and Corporate programs like insurance, proposals, and tenders; or,  
An additional part-time person be hired with a finance background to assume the duties of finance and payroll; or,  
An additional full-time person is hired with a finance background to assume finance and payroll duties and explore the possibility of sharing the person with one or both Townships to be more cost-effective.
2. The Administrative Assistant/Treasurer be trained on the proper procedures for taking municipal minutes and ensuring provincial legislation and standards are followed.
3. The Records Management System be expanded to the station level so the Officers can input both training and emergency response records.
4. A new electronic burn permit system be explored to reduce the workload of the Administrative Assistant/Treasurer.

Figure 6 outlines the recommended organizational chart that the Department should adopt.

Figure 6: Recommended Organizational Chart

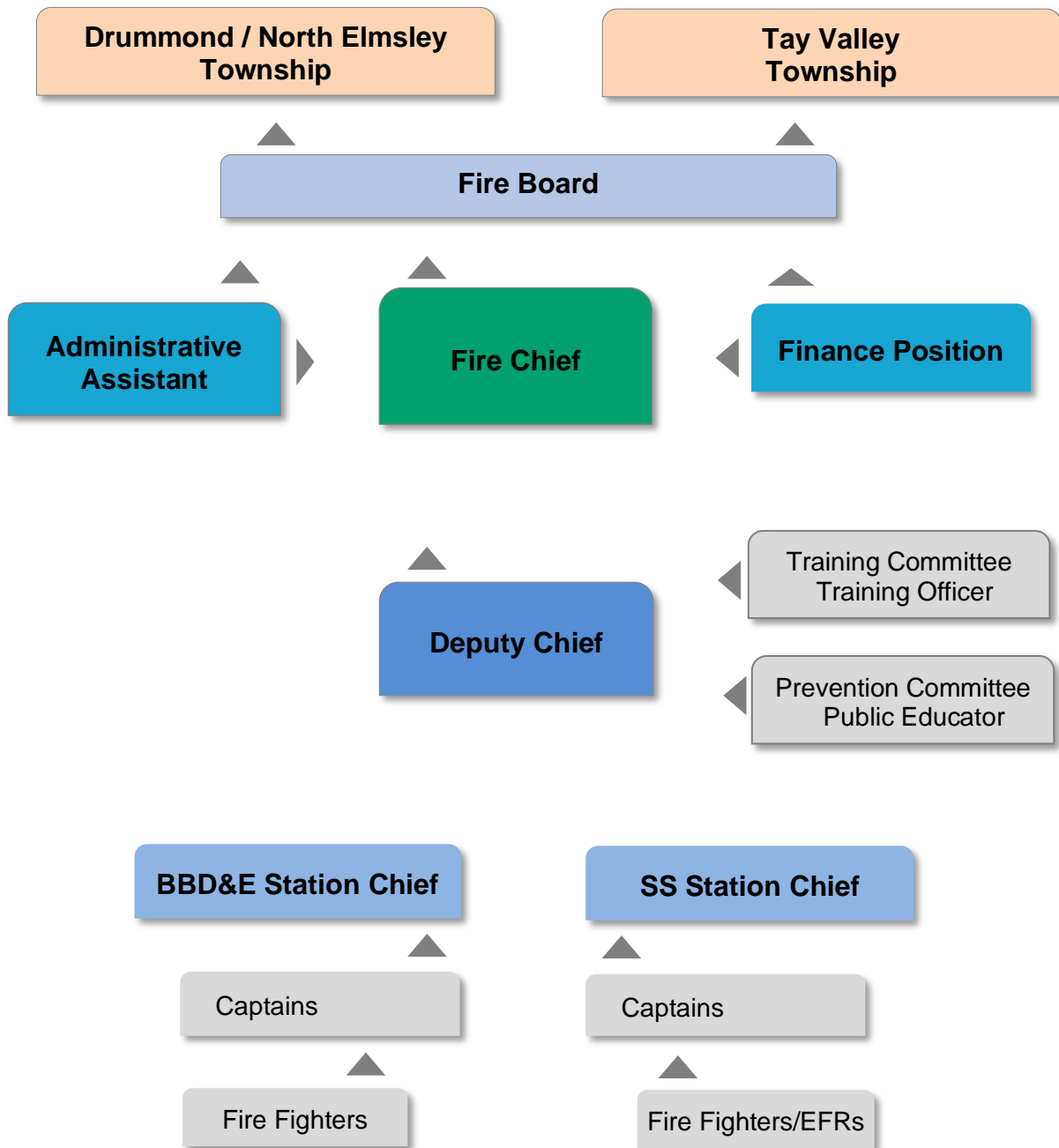
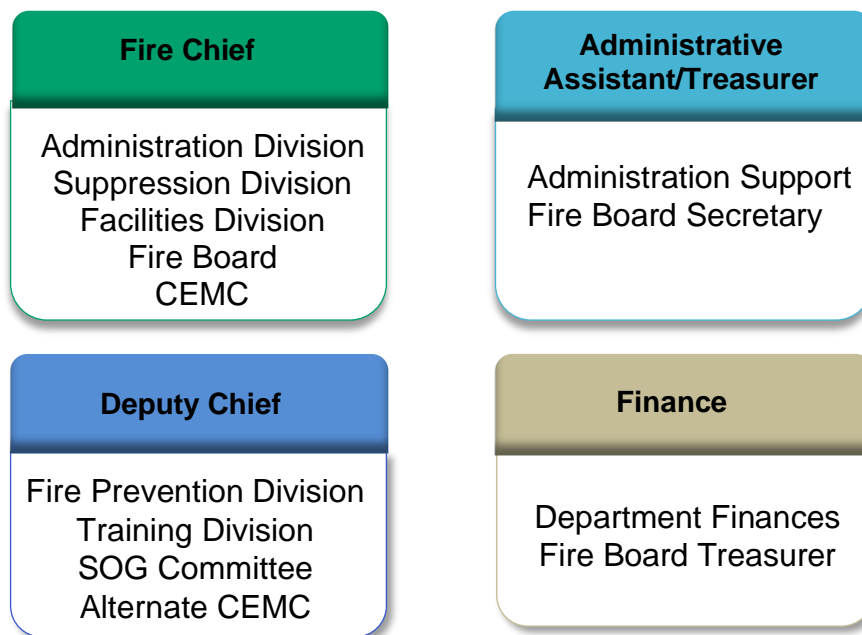


Figure 7 illustrates how the responsibilities are balanced with the additional administrative support, based on the proposed organizational chart. The result is a reduced and manageable workload for the Fire Chief and Administrative Assistant/Treasurer.

**Figure 7: New Responsibility Chart**



### 11.1 Recommendations

From a review and assessment of the Department Organization Structure, it is recommended that:

5. The Fire Board approves hiring a Deputy Fire Chief to manage the Training and Fire Prevention Programs and support the Fire Chief's role.
6. The Department implements a new burn permit system that is efficient and requires fewer hours for the Administrative Assistant/Treasurer to manage and includes using the "Who's Responding" Program.
7. The Fire Board reviews the proposed considerations to reduce the Administrative Assistant/Treasurer's workload either by supporting the position with additional staff or reallocating duties to one or both Township Offices.

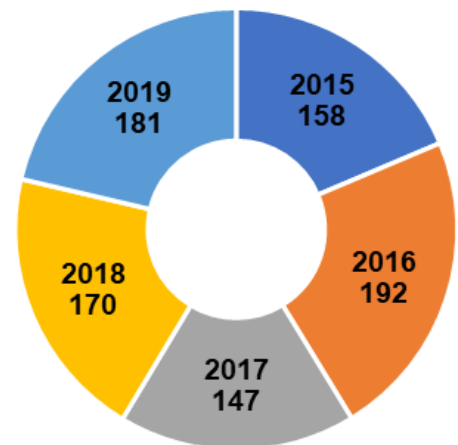
## 12.0 Response Times and Resource Deployment

### 12.1 Department Statistics

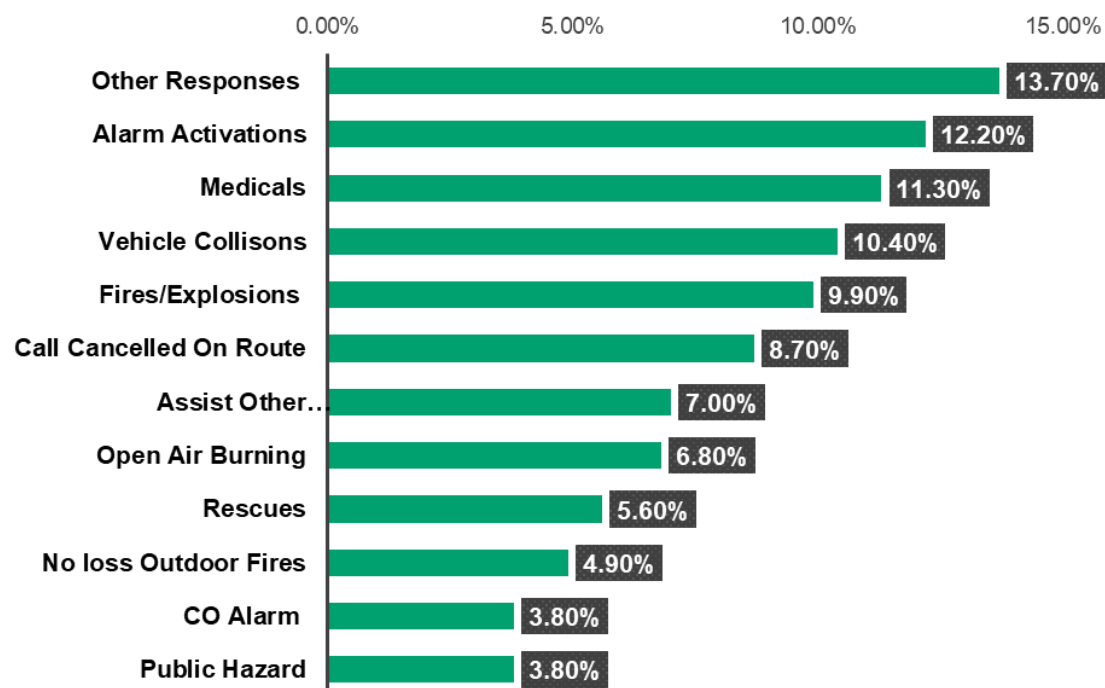
The number of responses for the Department has been stable over the last several years. Below represents the total number of emergency responses that the Department responded to from 2016-2019. The data was extracted from statistics collected by the Department’s Records Management System.

Many departments in the province have noted a significant shift over the last twenty years of responding to fires versus medical emergencies, vehicle collisions, or other service calls. This shift has changed the way departments conduct business, the subjects they train on, and the equipment required for different responses. As evident in Figure 9, fires represent 9.9% of the total calls, but often they have the most significant impact on property loss and come with a higher risk for the firefighters and residents. Other responses represent calls that do not fall within one of the different categories, as set out by the OFMEM Standard Incident Reporting.

**Figure 8: Total Emergency Responses 2015 - 2019**



**Figure 9: Service Call, Types and Percentages 2015-2019**



**Table 2: Types of Fire Responses**

Year	Loss Fires Structures	Loss Fires Other	Loss Fires Vehicles	No loss Fires
2016	6	0	1	3
2017	2	0	3	3
2018	1	0	8	10
2019	4	0	0	3

**12.2 Response Times**

There are various components to measuring response times for a department, as outlined below in table 3. It is important to note that some areas are not within the Department's Control. For example, with improved technology and a professional dispatch service, the Initial Call to Dispatch Time can be handled, and time can be decreased with further technology. Assembly time can be controlled more efficiently in how firefighters respond to the fire station, also reducing on-scene time. The only component of the on-scene time that cannot be controlled is travel time, which depends solely on where the call for service is and the type of road network for the response route.

**Table 3: Outline of Controllable and Non-Controllable items**

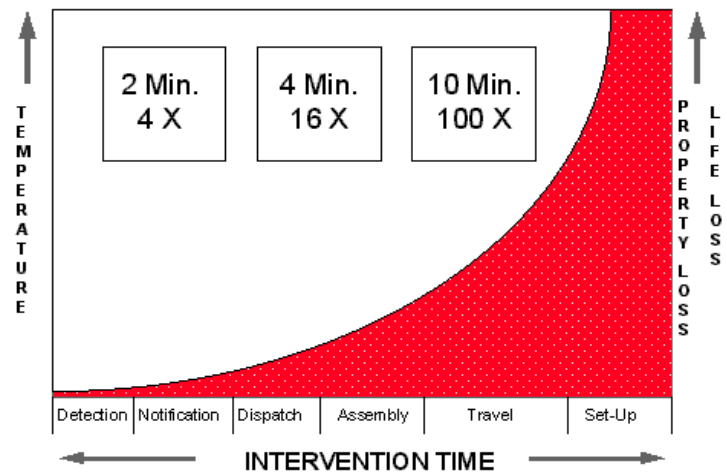
Initial Call to Dispatch Time	Time the call was received by the dispatch center to the time the fire station was notified.	Controllable
Assembly Time	Time from when the fire station is notified to the time the responding vehicle leaves the station.	Controllable
Travel Time	Time from when the responding vehicle leaves the station to the time it arrives on-scene.	Non-Controllable
On-Scene Time	Total of all the components put together.	

In large urban centers with full-time firefighters and multiple stations, response times are frequently in the five to eight-minute range. Response times can often be ten to twenty minutes in rural areas, depending on the municipality's size, number, location of fire stations, road network, etc.

The sooner first responders arrive at the incident, the better the chance to save lives and limit property damage; therefore, response times are important to review in all emergencies relating to fire structures.

As noted in Figure 10, the time and temperature curve chart illustrate fire growth over time and the importance of prompt intervention to limit life and property loss.

Figure 10: Time/Temperature Relationship



The growth of the fire is dependent on fuel and air supply and is heat generated. Once a room on fire reaches approximately 1,000<sup>0</sup> F (590°C), a “flashover” will occur, where the entire room is involved in the fire; it can happen in six to ten minutes (or less) after a fire starts. The loss of life and property significantly increases following a flashover.

Therefore, the sooner the fire department can begin fire suppression, the greater the chance of a successful outcome in protecting the people and property. Appropriate response time and firefighter intervention increases the likelihood of rescue and improves fire control before flashover occurs.

The statistics presented in Table 4 are from the Department's Records Management System and illustrate the average time for dispatch, assembly, and travel time that make up the average on-scene time for the department.

Table 4: BBD&E Average Times of Assembly, Travel and Response

Year	Average Assembly Time in Minutes	Average Travel Time in Minutes	Average Response Time in Minutes
2015	4 min 36 sec	9 min 32 sec	14 min 08 sec
2016	4 min 36 sec	9 min 38 sec	14 min 14 sec
2017	5 min 11 sec	11 min 07 sec	16 min 18 sec
2018	4 min 35 sec	18 min 51 sec	23 min 26 sec
2019	7 min 04 sec	12 min 38 sec	17 min 17 sec



**Table 5: SS Average Times of Assembly, Travel and Response**

Year	Average Assembly Time in Minutes	Average Travel Time in Minutes	Average Response Time in Minutes
2015	4 min 45 sec	11 min 33 sec	16 min 18 sec
2016	8 min 27 sec	10 min 52 sec	19 min 19 sec
2017	8 min 10 sec	8 min 18 sec	16 min 28 sec
2018	7 min 01 sec	8 min 39 sec	15 min 40 sec
2019	7 min 06 sec	7 min 10 sec	14 min 16 sec

Note: Smiths Falls Fire Department provides dispatch. There is no data provided to show if dispatching meets the National Fire Protection Association Standards for dispatching. The Department provided all other times.

At first glance, the response time for the Department appears to be high. However, looking closely at the Department and the stations' geographic locations, it becomes understandable that the response times are acceptable. Table 6 illustrates the station's percentage of response calls over 10kms. This travel time is an 'uncontrollable' part of the total response time.

**Table 6: Response Calls over 10 km**

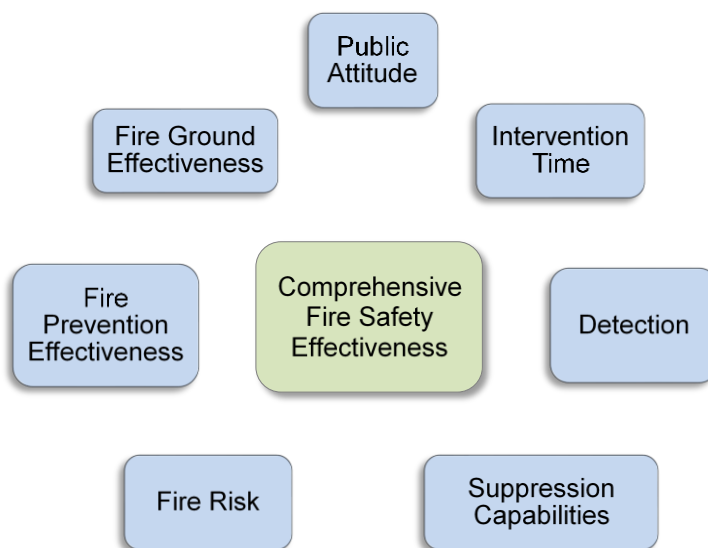
Year	2015	2016	2017	2018	2019
<b>10+ km</b>	89	115	82	97	105

### 12.3 Resource Deployment

The determination of how many firefighters is required to respond has been a concern for municipalities for years. In recent years, the provincial government has played an essential role in the decision-making process for fire department staffing through the Occupational Health and Safety Act and the Fire Protection and Prevention Act.

Under the Ontario Health & Safety Act, the employer has responsibilities to protect employees from workplace injuries or death. Employee training and competent supervision is a requirement of the Ontario Health & Safety Act and Regulations.

Ontario departments widely use the “10 in 10” staffing model developed by the Fire Marshal’s Office in the ‘90s. This model states that ten firefighters should arrive on the scene within ten minutes. The “10 in 10” was once part of a comprehensive fire safety model that identified seven sub-models impacting fire protection.



**Figure 11: Comprehensive Fire Safety Effectiveness Model**

Table 7 illustrates the Effective Fire Ground Staffing Chart that was developed under the Fire Ground Effectiveness sub-model to identify the functions needed to be completed during a fire. This baseline model is reflective of a fire in a single-family dwelling with a municipal water supply. In rural areas, additional firefighters and tankers are required for water supply.

**Table 7: Effective Fire Ground Staffing Chart**

Complex Rescue & Subsequent Fire Control	Firefighter Functions	Number of Staff
Establish Water Supply	Water supply hook-up to a hydrant Pump operator/drive	1 1
Size Up	Supervisor-Command & Control	1
Rescue	Search & Rescue Back-Up, 60m of pre-connect 38mm hose	2 2
Exposures	60m of pre-connect 38mm hose. Water supply person assists when the water supply is secured	1
Ventilation	Raise 7m ladder plus equipment	2
Confinement	Sequential, the rescue back up team begins confinement when the rescue operation is complete	0
Extinguishment/Salvage and Overhaul	Sequential, other staff assigned when earlier duties completed	0

Other recognized standards for resource deployment is the National Fire Protection Association (NFPA) 1710 and 1720.

NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.

Fire Department response performance objectives contained in the NFPA 1710 Standard include time for call taking and dispatch, turnout time for firefighters (80 seconds), and travel time for the first responding fire pumpers to arrive on the scene (objective = four minutes from the time they leave the station until they arrive on the scene). There is also a benchmark for a full assignment of firefighters to arrive on the scene (objective = eight minutes from when they leave the station until they come on the scene). The full assignment is the group of firefighters needed to handle the emergency adequately.

NFPA 1720: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments.

NFPA 1720, Section 4.3.1 recommends the Fire Department shall identify minimum staffing requirements to ensure that enough firefighters are available to operate safely and effectively. This standard is more general in nature and bases staffing response times on demand zones and demographics. There are no specifications on how firefighters arrive on the scene.

OFM “10 in 10” guidelines and NFPA 1710/1720 Standards are not legislated requirements in the Province of Ontario. Individual Councils can still determine the level of staff and how it is to achieve the number. However, the NFPA standards and guidelines represent “best practices” in considering the level of staffing and would be a reference in any litigation that may involve the Department’s service levels. Therefore, it is prudent that each Council, based on the Fire Chief’s recommendation, develop a standard that applies to their Township that is cost-effective and dependable.

Currently, the Department is based on volunteer firefighters to meet resource deployment. The use of volunteer, part-time, or call back firefighters is a common method of providing fire service for a municipality. The term “volunteer” firefighter in this document is based on the definition in the FPPA, which states: a volunteer firefighter means a firefighter who provides fire protection services either voluntarily or for a nominal consideration, honorarium, training, or activity allowance. 1997, c. 4, s. 1 (1); 2001, c. 25, s. 475(1).

In Ontario, most volunteers receive compensation for their time for training, emergency response, and other duties, like fire prevention.

The average number of total personnel on-scene per call from 2015-2019, based on statistics obtained from the Department’s Records Management System, was for SS 11 and BBD&E 14. The numbers illustrate that the Department is currently meeting the Effective Fire Ground staffing model.

**12.4 Fire Station Locations**

The SS station's placement in Tay Valley Township is appropriate given the geography, access to major response routes, and access to volunteer firefighters. While the station's location is a considerable travel distance from the BBD&E station, it is unavoidable due to the area's size required to respond.

The BBD&E station location is in an industrial area in another municipality, the Town of Perth. Response for this station requires the emergency vehicles to drive through the Town of Perth to reach either of the Townships, which during the day reduces response time due to traffic lights, stop signs and traffic volume. As is shown in Figure 14, the station is just south of a major rail line that on numerous occasions causes a delayed response with both the volunteer firefighters responding to the station and the emergency response vehicles responding to assist the residence, businesses, or visitors to the Townships. Unlike the SS station, there is limited access to major response routes because of responding either through the industrial or residential area.



**Figure 12: SS Station**



**Figure 14: BBD&E Station**



**Figure 13: BBD&E Station south of the railway (black line)**

**12.5 Fire Station Location Considerations**

The review explored options for the BBDE station that would help reduce the response times, provide better access for volunteers responding to the station, and responding from the station in emergency vehicles. Also, utilizing closer resources would provide a better level of service to the residents. There are two options the Fire Board and the Department can explore, outlined below.

### Consideration One

Relocate the current BBD&E station to the northside of the train tracks to an area owned by the Townships with better access to response routes like Hwy #7.

**Figure 15: Example of new station sites on Hwy #7**

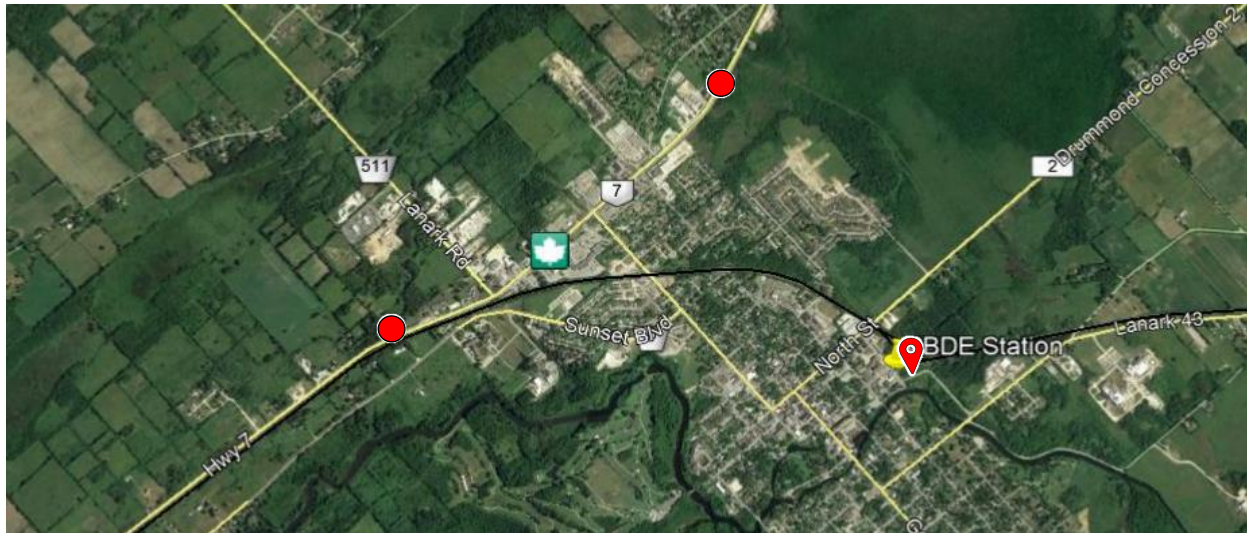
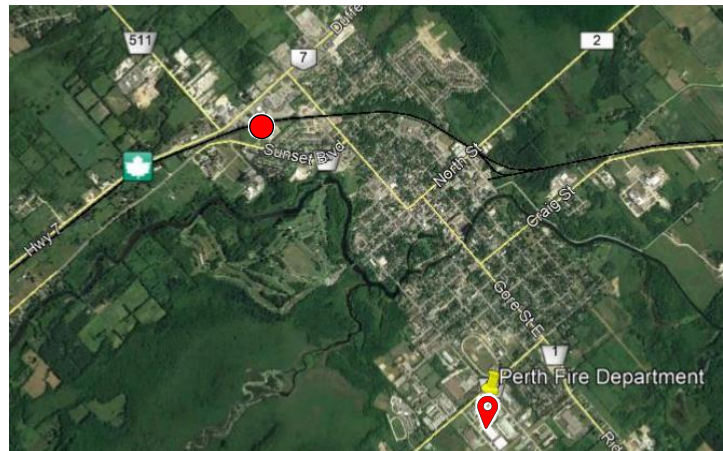


Figure 15 demonstrates a couple of proposed locations of placement for a new station. The image above provides general sites without considering if or where property could be purchased or is already owned by the Townships. There are many advantages to having a fire station located on Hwy #7, including better access to a major response route, as previously mentioned. Hwy #7 has four lanes through the Town of Perth and beyond to the west in Drummond/North Elmsley and the East into Tay Valley, a significant advantage for response vehicles. Having four lanes allows for better navigation through traffic and provides space for traffic to move out of the way for responding fire apparatus, and overall a safer environment both for the firefighters and the residents or visitors who are travelling in vehicles.

Relocating would also place the fire station on the north side of the train tracks that run through the Town of Perth. The Department could still face challenges with delays in responding to portions of the Townships to the south of Perth because of the track, but through Mutual Aid or Automatic Aid, the Perth Fire Department could assist. As it stands now, if the train tracks are blocked, both fire stations' location is south of the tracks.

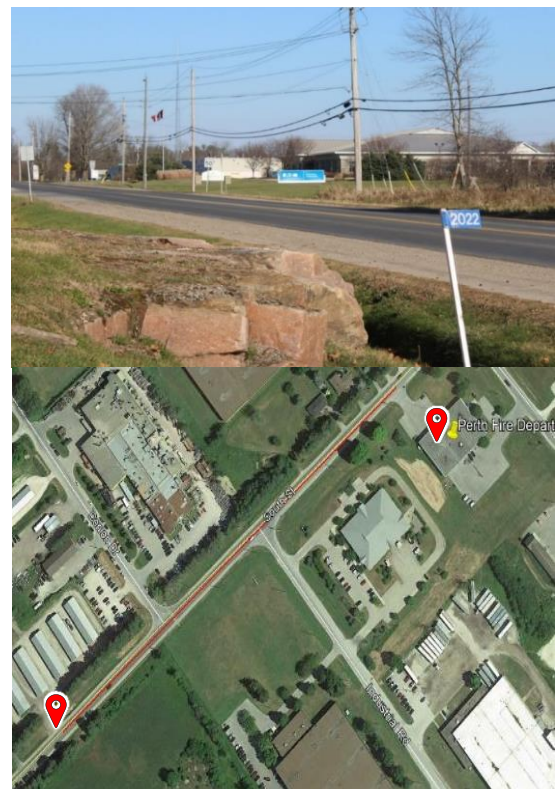
**Figure 16: Example of a station site north of the Town of Perth's Station**



**Consideration Two**

Entering into an Automatic Aid Agreement with the Town of Perth for high-risk responses for areas that they can provide a quicker response.

The second consideration to provide better resource deployment would be to enter into an Automatic Aid Agreement with the Perth Fire Department for all high-risk responses to areas where they can provide a quicker response. Figure 17 represents an address on the Scotch Line in Tay Valley, and the background shows the fire station located in the Town of Perth. For this address, the Perth Station is approximately 700 metres from the location with an unimpeded response, while the BBD&E station is 2.9 km away and must drive through downtown Perth to get to the site. This example is one of many where the Townships' residents could benefit from an Automatic Aid Agreement. The Department would still respond with Perth Fire Department; however, it would significantly reduce the initial response time, minimize property damage, and maximize residents' protection.



**Figure 17: Perth Fire Department proximity to Tay Valley property**

## 12.6 Private Laneways

The Townships' geographics bring some unique challenges to the Department for providing service to the community regarding private laneways. These laneways often have “cottage” type roads leading to them, which are narrow, hilly and have vegetation growth that makes it difficult for large apparatuses to travel down them.

The introduction of a Private Laneways Program that would include Public Education and a bylaw that defines how a roadway should be constructed and maintained would help the Department provide its services to many Townships' residents.

The public education component would see the Department develop a media campaign, develop and distribute flyers, and include face to face meetings with community groups or private lake and road associations.

The bylaw would set standards for new road widths, height clearances, and the material the road would be constructed from, like the Tay Valley policy for minimum standards for the assumption of a private road. Additionally, the bylaw would describe how the roadway would be maintained in the future as vegetation and trees grow. Keeping a private laneway to an applicable standard would reduce response time, improve residents' level of service, and reduce maintenance costs on vehicles.

Other municipalities have used this type of program and bylaw as a useful tool to ensure emergency responders can reach their residents when they require their services. Bylaws can present many challenges, including enforcement, but a good bylaw, in conjunction with an education program for the residents, has proven to work in many cases. The Department should develop this program on the same premise as any other Public Education and Code Enforcement program.

## 12.7 Rural Homes or Estate Subdivision

While reviewing the Plan's geographical area, it was evident that both Townships have a long response time to the travel distance from the Fire Station. While it is not feasible or practical to build more Fire Stations in less populated areas, the Fire Board and the Department is obligated to mitigate or lessen the impact on a resident or business.

A standard was developed for the Fire Board's consideration for areas where response times are longer due to travel times outside of a Council approved distance. The following recommendations would make up the standard:

- All new rural homes or estate subdivisions would have residential sprinkler systems provided they have the water capacity.
- Commitment by the Department to provide an enhanced Smoke/CO Alarm Program.
- Commitment by the Department to provide an enhanced Fire Extinguisher Program.
- Commitment by the Department to provide an enhanced Public Education Program.

- Firefighter efforts will concentrate on preventing a fire from spreading.
- Provide residents with a copy of the approved standard.

The Fire Boards' most contentious issue to consider adopting the standard would be residential sprinkler systems for the new rural homes or estates subdivision. In combination with the Ontario Building Code requirements for smoke/CO alarms, an aggressive public education program will provide the most significant protection of life and property. It is also the most cost-effective fire and life safety system that Councils can provide.

The National Fire Protection Association shows that having a residential fire sprinkler system installed in a home can increase the survival expectancy during a fire by 80%. Residential fire sprinklers are effective because activation is faster than any other response mechanism, and it helps to control the fire immediately at the point of origin.

Even if the family manages to get out of the fire because of an early warning device, the fire cannot be stopped from consuming the home until the fire department arrives. A residential fire sprinkler system can extinguish the fire or minimize the fire's extent before the department comes.

Many people base their perception of a sprinkler system on what they see in commercial occupancies built to different standards based on the type of construction or occupancy. Residential systems are smaller and require less water to operate.

Another concern many people have when considering installing a fire sprinkler system for their home is the belief that when the sprinklers go off, it will soak their belongings, doing as much or more damage as a small fire. However, this is not the case. Fire sprinklers use the minimum amount of water necessary to control the fire, usually spraying 8-24 gallons of water per minute to control home fires, which is small compared to the 50–125 gallons per minute from a fire department hose.

**Figure 18: Example of a Concealed Residential Fire Sprinkler**





## 12.8 Recommendations

From the review and assessment of the response times and resource deployment, it is recommended that:

1. The Fire Chief conducts a Station Location Study that includes a response time analysis for relocating the BBD&E Fire Station.
2. The Fire Chief approaches the Perth Fire Department Chief to develop an Automatic Aid Agreement for structure fires in areas where the Perth Fire Department can respond faster.
3. The Fire Board adopts the Rural Home and Estate Subdivision Standard for new construction.

## 13.0 Water Supply

Water supply is essential for effective fire suppression, and the Fire Underwriters Survey attributes 30% of the insurance grading schedule to that component. There are two categories for water supply for fire protection:

1. Municipal water supply – hydrant protected
2. Rural water supply - non-hydrant areas

Except for a few hydrants located at the Lanark Lodge and Perth Community Care facilities and County of Lanark building, there is no hydrant protected areas in either Drummond/North Elmsley or Tay Valley.

### Non-Hydrant Areas

Water supply for fire protection in rural areas (non-hydrant protected) presents significant challenges for fire departments. Unlike urban areas where water supply depends on fire hydrants almost exclusively, this Department must have additional fire apparatus (tankers) and personnel trained on tanker shuttle procedures. Two programs developed to address water supply for fire protection in rural areas includes:

1. Superior Tanker Shuttle Accreditation provides improved capacity to maintain adequate water supply for effective firefighting for distances of up to 8 km from a fire station with a minimum of 900 litres/min (200 gallons) for a two-hour duration. As a result of this program, many rural residents could see significant reductions in fire insurance premiums.
2. Dry hydrants are installed in several locations designed to allow fire apparatus to draft water from rivers, lakes, ponds, or storage tanks and are non-pressurized.

Due to fire apparatus travel times for responses and insufficient support from surrounding stations, neither Station has obtained the Superior Tanker Shuttle Accreditation. However, the Department has a substantial Dry Hydrant program.

The Dry Hydrant program review determined that 16 dry hydrants are available between the two Townships, with one additional dry hydrant installed each year.

Firefighters have a good understanding of the dry hydrants' locations, and the Department has a very comprehensive maintenance program where the stations take two crews and pumpers every month to review the site and test the dry hydrants. The program ensures testing of all dry hydrants at least once a year.

### 13.1 Recommendations

For review and assessment of Water Supply: There are no recommendations

## 14.0 Fire Apparatus and Equipment

Fire apparatus (pumpers, tankers, rescues, aerials, etc.), often referred to as fire trucks, are used by fire departments to deliver emergency services to the Townships' residents and businesses. The fire service responds with firefighters and properly equipped apparatus to control or mitigate an emergency. The fire apparatus represents a significant investment for any municipality. Maintaining and replacing apparatus to ensure a reliable and modern fleet is an integral part of managing and planning fire service delivery.

Fire Service apparatus have evolved over the years, and there are increasingly more demanding standards that must be followed when purchasing an apparatus. This includes the *Ontario Health and Safety Act*, *National Fire Protection Association Standard 1901 – Standard for Automotive Fire Apparatus*, and/or *ULC – S515-04 – Automotive Fire Fighting Apparatus*. Due to the continual changes in safety requirements, construction materials, and operating practices, older fire apparatus do not have many of the now mandated features. Among the most important are Anti-lock Brake Systems (ABS) and Roll Stability Control (RSC) that help minimize accidents by improving steering and braking control.

Another factor in determining when the apparatus should be replaced is the impact of the Fire Underwriters Survey (FUS) on the age of apparatus that is acceptable for insurance grading purposes. In smaller communities, FUS will only recognize an apparatus that is no more than twenty (20) years old. These factors emphasize the importance of planning and budgeting to replace older apparatus.

### 14.1 Apparatus Inspection, Testing, and Maintenance

Each fire apparatus must be maintained to a high level of scrutiny to ensure it starts and operates any time an emergency incident occurs. This requires a robust system of weekly and annual inspections, tests, and maintenance. In addition to routine maintenance such as checking and adjusting brakes, lubrication and oil changes, the apparatus must have an annual Ministry of Transportation (MTO) inspection, pump tests, and non-destructive testing on ladders. This routine maintenance requires that each vehicle is out of service several days every year to complete this scheduled work.

As noted above, standards are more demanding and complex with introducing new safety systems, pollution control, and engine and driveline systems using computer interfaces. In the past, many components on the fire apparatus could be repaired or maintained by mechanically skilled firefighters or a local garage. Much of this work now requires mechanics with specialized training and computer analysis of system faults. As a result, some apparatus may be out of service for more extended periods while repairs are done.

The review of the fire fleet showed that it is modern and well maintained. Maintenance and repairs are completed in-house or by a third-party, depending on maintenance or repair complexity.

As part of the regular vehicle maintenance program, the fire apparatus is checked weekly by two firefighters, who are expected to complete vehicle checks and report any issues in writing and forwarded them to the Station Chiefs. Upon reviewing any problem, the Station Chiefs can either fix the issue in-house or send it to a third-party for repair.

Maintenance is also performed every month on all apparatus through a bi-weekly schedule that does half the fleet every two weeks.

For the annual safety on the apparatus, including pump testing, they are completed annually as per legislation. Also, the ladders on the apparatus are tested every two years.

#### **14.2 Fleet Renewal and Rationalization**

Fleet renewal and rationalization are a considerable cost for any municipality, and the Fire Board has done an excellent job of supporting the fleet's updating. The challenge for current and future Fire Boards is the financial or budgetary pressures when it is time for a replacement. To help forecast the pressures on budgets, the Fire Chief has developed a plan that would indicate the year and number of vehicles that must be purchased. This plan provides the Fire Board with the advantage of knowing the fleet's potential future cost and for the strategic planning and building of reserves for the required funding.

Also, due to the fire apparatus's cost, the Fire Chief must review and ensure that the recommendation to the Fire Board for a replacement is right for the Townships for a 20-year lifespan. One consideration that is not in the Station Vehicle Replacement Schedule is an aerial device's expectation in the future. While it would make more economic sense for the Department to enter an agreement with the Town of Perth to utilize their aerial device if required, there is no agreement in place.

The Vehicle Replacement tables below show the expectations for the Fire Board on the fire apparatus fleet replacement.

**Table 8: BBD&E Station Vehicle Replacement Schedule**

Unit #	Type	Model	Year	# Service Years	Replacement Year	Est. Cost
370	½ Ton Truck	Ford	2016	15	2031	\$50 K
330	Tanker	International	2020	20	2040	\$ 400 K
331	Tanker	International	2006	20	2026	\$ 350 K
320	Pumper	International	2012	20	2032	\$ 450 K
321	Pumper	GMC	2002	20	2022	\$ 450 K
340	Rescue	International	2015	20	2035	\$ 400 K
390	ATV	Polaris	2016	20	2036	\$ 40 K

**Table 9: South Sherbrooke Station Vehicle Replacement Schedule**

Unit #	Type	Model	Year	# Service Years	Replacement Year	Est. Cost
341	Rescue	International	2017	25	2042	\$ 400 K
322	Pumper	GMC	2001	20	2021	\$ 400 K
332	Tanker	International	2010	20	2030	\$ 350 K
361	Brush Truck	Ford	2003	25	2027	\$ 125 K
371	½ Ton Truck	Ford	2002	20	2022	\$ 50 K

### 14.3 Fire Equipment

There is a large variety of fire and emergency equipment used by the fire service. Personal protective equipment (PPE) includes bunker gear (firefighting coats and pants), helmets, flash hoods, gloves, and boots, all of which must meet NFPA standards to comply with Occupational Health and Safety regulations. Self-Contained Breathing Apparatus (SCBA) is required anytime a toxic atmosphere is present or suspected, such as fires, carbon monoxide calls, hazmat spills, etc. The Department has a program and budget to maintain, clean, and replace this PPE to provide firefighters with protection from the hostile work environments they encounter at fires and other emergencies.

The Department has a large inventory of other equipment, including fire hoses, nozzles and fittings, ladders, generators and lighting, ventilation fans, portable pumps, saws, extrication tools (Jaws of Life), gas detectors, thermal imaging cameras, ice and water rescue equipment, and many types of hand tools. All this equipment must be maintained and replaced as required. The Fire Board and the Department's challenge is to properly budget the equipment replacement in an approved life cycle program. Most of the equipment used by the fire service is expensive and has a life span. The Fire Chief must carefully plan and budget to ensure that equipment is replaced quickly and cost-effectively.

Because of the cost to replace both fire equipment and day to day equipment and infrastructure in the Fire Stations, the Fire Chief engaged a third party to complete an Asset Management Plan that inventoried all equipment. The Fire Chief can now use this plan to budget for the replacement of all lifecycle items properly.

#### **14.4 Recommendation**

From the review and assessment of Fire Apparatus and Equipment, it is recommended that:

1. The Fire Chief explores the possibility of entering an agreement with the Town of Perth to use an aerial device when required.
2. The Fire Chief should develop a lifecycle replacement plan for all fire equipment, based on the Asset Management Plan.

## 15.0 Fire Stations

The Department operates from two fire stations: The South Sherbrooke Fire Station is located at 22110 Highway 7 in Maberly, and the Bathurst, Burgess, Drummond and North Elmsley (BBD&E) Fire Station (BBD&E) is located at 14 Sherbrooke Street in Perth.

The South Sherbrooke Station opened in 2011 and is a state-of-the-art facility constructed in compliance with current codes and regulations, including the [Ontario Building Code \(OBC\)](#), [Ontario Fire Code \(OFC\) O.Reg. 213/07](#), and the [Accessibility for Ontarians with Disabilities Act \(AODA\)](#). The facility includes six apparatus bays, a large second storey storage mezzanine, a laundry room, two mechanical rooms, multiple offices, a full kitchen facility, and a large training room to accommodate the entire station. The station has a drive-through bay feature built on 14 acres, allowing for a training ground's future growth.

The BBD&E station was constructed in 1967 and has had two additions in 1985 and 1990. In 2008, renovations to the interior office area made the administration area more functional. Additional work was completed to meet accessibility standards, and bathroom and shower facilities were added for both males and females. The apparatus floor area can presently accommodate the fire apparatus in the current fleet; however, there is no room for expansion of the fleet or housing an aerial ladder if required in the future. The training room can accommodate the entire station for training sessions or the Fire Board meetings. At over 40 years old, the building remains functional for the Department's current operations. However, as the Department's functions expand with staff, fleet, or increase service, the station would have to either be renovated or replaced. Also, given the building's age and location, as discussed in Section 12.0, it would be beneficial for the Fire Chief and the Fire Board to complete a feasibility study on the best option to proceed with the station before.

Figure 19: SS Station



Figure 20: BBD&E Station

## 15.1 Recommendations

From the review and assessment of the fire stations, it is recommended that:

1. The Fire Chief conduct a feasibility study on the BBD&E fire station to determine the most cost-effective solution to meet the Department's future needs.



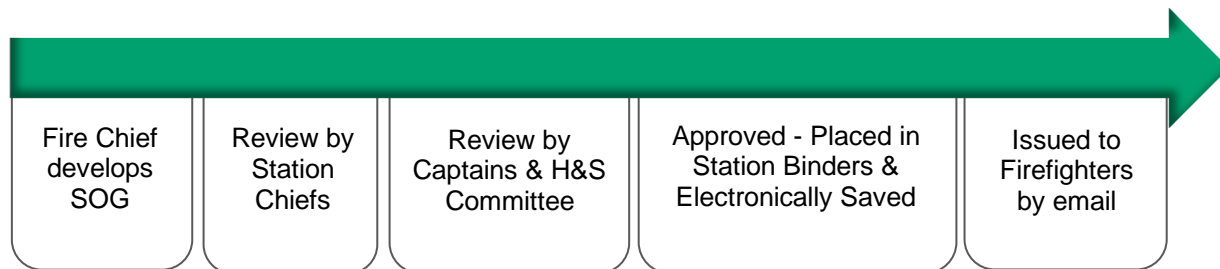
## 16.0 Policies and Standard Operating Guidelines (SOGs)

The Department’s SOGs provide guidance and direction to members on carrying out their duties following standards and practices that comply with provincial legislation/regulations and municipal, department policies and industry best practices. Operations must be consistent with reasonable work practice compliance, Councils direction, and meet the Occupational Health and Safety Act/Regulation requirements. At a minimum, a fire department should have a SOG for each topic identified by the Ministry of Labour Section 21 Guidance Notes, with a few exceptions where services/circumstances do not apply.

All departments are required to develop SOGs that cover various aspects of operations. The maintenance of policies and guidelines is one of the most labour-intensive duties for fire department administration. In small departments, the SOG development and maintenance responsibility usually rests solely with the Fire Chiefs.

The Department has a comprehensive set of SOGs covering various aspects of operations. With the Administrative Assistant/Treasurer’s addition in 2010, the Fire Chief began to update the SOGs, but due to time constraints, other projects with higher priority sometimes push the SOGs to a lower priority. Figure 21 below outlines the current SOG development process.

**Figure 21: SOG Process from Creation to Issuance**



Due to the importance of SOGs, the Department should consider creating a SOG Committee to review and update SOGs to ensure they remain current and reflect the Department’s operations. The committee can develop an annual schedule that is reasonable to complete the task.

### 16.1 Recommendation

From the review and assessment of the policies and standard operating guidelines, it is recommended that:

1. The Department creates a SOG Committee responsible for reviewing SOGs annually to ensure they are current and reflect the Department’s operations.

## 17.0 Emergency Management

The [Emergency Management and Civil Protection Act R.S.O. 1990 \(The Act\)](#) stipulates several criteria for a municipality to receive their annual compliance, which includes that:

- A municipality has an Emergency Management Program (EMP) and an EMP Committee
- Annual emergency management training is to be provided to all members of the Municipal Control Group
- An annual exercise is conducted utilizing the Plan and all members of the Municipal Control Group
- The municipality designates a Community Emergency Management Coordinator (CEMC) and Alternate CEMC
- Annually the Municipalities Critical Infrastructure (CI) and Hazard Identification Risk Analysis (HIRA) are reviewed and updated as required.

The Act stipulates that the responsibility rests solely with the Townships and not with the Department. However, in both Townships, the Fire Chief is the CEMC, and the Townships provide the Alternate CEMCs. In this approach, the responsibilities fall to the Fire Chief as CEMC. This conflicts with the Act, and in the event of an emergency. In addition, the Fire Chief is responsible for the Program Committee, including program meetings, exercises, and training reviewing both the Hazard Identification Risk Analysis (HIRA) and Critical Infrastructure (CI) and updating the Emergency Response Plan.

In reviewing the EMP with the CAO of Drummond/North Elmsley and Acting CAO/Clerk of Tay Valley, both have a difference in the availability of time to assist the Fire Chief with the EMP.

Overall, it appears that the Townships meet the minimum compliance, but the EM Program Committee struggles to find the time to meet and finds the work to be quite time-consuming. The Townships should review the EMPs and consider solutions to streamline processes to remain compliant with the Act and reduce the Fire Chief's time commitment, including the option of contracting a third-party to manage both EM programs. Additionally, both Townships' Emergency Response Plans should be converted to the Incident Management System to provide a streamlined approach to the plan, reduce the expectations of the CEMC, and make it more practical for the size of the Townships.

### 17.1 Recommendation

From the review and assessment of emergency management, it is recommended that:

1. Each Township updates its Emergency Response Plan to the Provincial Incident Management System Model.
2. Each Township reviews its Emergency Management Program and explores ways to streamline the process to ensure compliance and reduce the Fire Chief's time commitment.

## 18.0 Statistics and Records Management

Documentation and management of records helps to ensure Councils, the Fire Board, and the Department meet its legislative requirements, reduce the risk of liability, and allow for strategic planning for the future. A review of the Department's Records Management System and attempts to obtain statistics demonstrated that this is an area of improvement for the Department.

Currently, Department record-keeping is undertaken by paper files, electronic programs and in some cases, not at all. The expectations of service and equally as high the risks of liability for the Townships, the Fire Board and Department members should not understate the importance of maintaining good record-keeping. Without the aid of accurate statistics and records, the Fire Board and the Fire Chief cannot make informed decisions on how best to move the Departments forward in a cost-effective manner.

The absence and inconsistency of records for the Department are not due to the lack of importance placed on it; but rather the lack of time or knowledge for the Fire Chief and the Administrative Assistant/Treasurer to complete this task. Better utilization of the Department's current electronic Records Management System to track data on emergency responses, training, public education activities, fire inspections, and equipment is required.

As discussed in Section 4.0, Legislation, Bylaws and Agreements, the Department is governed on a Board model, and provincial legislation requires good records management.

### **Standard Incident Reporting (SIRs)**

Under the FPPA, every fire department must complete a Standard Incident Report every time a department responds to a call, and the reports filed quarterly to the OFMEM. To ensure accuracy, the OFMEM provides a verification report at the end of the year for departments to review and update.

A review of the OFMEM statistics for the Plan showed that some of the Department's data is inconsistent compared to other departments and best practices. In discussion with the Department's management team, The Loomex Group determined that the issues lie in how data is entered into the Records Management System. The Administrative Assistant/Treasurer should receive refresher training on the proper coding of SIRs, and that the Department begins to enter the call responses following the OFMEM guidelines.

## 18.1 Recommendations

From the review and assessment of statistics and records management, it is recommended that:

1. The Administrative Assistant/Treasurer receives training on the current Records Management System program and its functions, including reports.
2. Align Stations' technology via the Records Management System to improve data sharing, and assist with completing training records, allow for a transparent approach to information while improving training records and remuneration reports.
3. The Administrative Assistant/Treasurer review the OFMEM's Standard Incident Reporting manual to ensure that data is being coded correctly for statistical purposes.
4. As of January 1, 2021, the Department correctly codes responses for the OFMEM's Standard Incident Reporting system.
5. The Department review applicable provincial legislation to ensure they are meeting the requirements for Records Management.

# **Appendix A**

## **Legislation and Reference Documents**

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## Legislation Affecting the Ontario Fire Service

Legislation	Area of Scope/Concern
<a href="#">Fire Protection and Prevention Act, 1997</a> and <a href="#">Ontario Fire Code</a>	Mandates and authorizes both the OFM and municipalities. Part IX is generally the responsibility of the Ministry of Labour, except where terms and conditions in collective agreements may adversely affect the provision of fire protection.
<a href="#">Provincial Offences Act</a>	Assistants to the Fire Marshal are Provincial Offences Officers under the Act for the purpose of smoke alarm related offences.
<a href="#">Municipal Act, 2001</a>	Authorizes the passing of bylaws necessary for the provision of fire protection
<a href="#">Occupational Health and Safety Act and Regulations</a>	Human resources occupational health & safety
Ontario Regulation (O.Reg.) <a href="#">211/01</a> and <a href="#">440/08</a> Propane Storage and Handling	Requires propane operators to obtain fire department approval for Risk and Safety Management Plans (RSMPs). The fire department approves fire safety, fire protection, and emergency preparedness elements of the RSMPs.
<a href="#">Environmental Protection Act</a>	Requires fire department personnel to report spills to the Ministry of the Environment, Conservation and Parks (MOECC), formerly referred to as the MOE
<a href="#">Dangerous Goods Transportation Act</a>	Governs the transportation of dangerous goods
<a href="#">Emergency Management and Civil Protection Act</a>	Requires municipalities to have an emergency plan and a trained Community Emergency Management Coordinator to conduct exercises
<a href="#">Building Code Act</a>	Provides authority for municipalities to appoint certain fire personnel as building inspectors

Legislation	Area of Scope/Concern
<a href="#">Highway Traffic Act</a>	Governs operation of fire vehicles during emergency response. Governs the response of firefighters on roads that have been closed by police, the use of flashing green lights on firefighters' personal vehicles and controlling traffic at accident scenes. Contains regulated requirement to log hours of service for operation of commercial motor vehicles.
<a href="#">Forest Fire Prevention Act</a> and <a href="#">O.Reg. 207/96 Outdoor Fires</a>	Applies only to "Fire Regions" as defined in the Act and controls outdoor fires in "Restricted Fire Zones". It requires municipalities to extinguish grass, brush, or forest fires within their limits. Provides authority for the appointment of "Wardens" and "Officer" by the Minister. O.Reg. 207/96 controls outdoor fires outside of restricted fire zones
<a href="#">Development Charges Act</a>	Provides the authority for portions of development charges to be allocated to fire services
<a href="#">Coroners Act</a>	Regulates the control of bodies. Authorizes/regulates coroner's inquests and coroner's inquest recommendations
<a href="#">Day Nurseries Act</a>	Defines the approvals from the fire chief that are required to operate a daycare facility
<a href="#">Employment Standards Act</a> <a href="#">Labour Relations Act</a>	Human Resources
<a href="#">Human Rights Code</a>	Defines how boards of inquiry, complaints, discrimination, and enforcement are to be handled
<a href="#">Municipal Freedom of Information and Protection of Privacy Act</a>	Provides access to information held by institutions and to protect the privacy of individuals concerning personal information about themselves held by institutions
<a href="#">Pesticides Act</a>	Makes mandatory the reporting of wholesale and retail pesticides to the fire department
<a href="#">Workplace Safety and Insurance Act</a>	The legislated requirement to report accidents and provide and document training Presumptive legislation



## References

Ontario Fire Protection and Prevention Act, 1997, S.O. 1997, c. 4

Ontario Fire Marshal's Directives and Guidelines

Emergency Management and Civil Protection Act (R.S.O. 1990)

Ontario Building & Fire Codes

National Fire Protection Association (NFPA) Standards

Occupational Health & Safety Act (OH&S) and Section 21 Committee Guidelines

Municipal Bylaws and Agreements

Corporate Policies and Guidelines

Department Policies and Standard Operating Guidelines

"Where are They Going" authored by Deputy Chief Ian Shetler for the Association of Municipal Managers, Clerks, and Treasurers of Ontario (AMCTO)

50<sup>th</sup> Anniversary Edition written and edited by Marcia Kirk and Elly Tysisk

## Consultation List

The following list of people were resources who provided information and were consulted throughout the review process.

Drummond/North Elmsley Tay Valley Fire Board

Drummond/North Elmsley Township -Cindy Halcrow, CAO

Tay Valley Township – Amanda Mabo, Acting CAO/Clerk

Drummond/North Elmsley Tay Valley Fire Rescue:

- Fire Chief Greg Saunders
- Megan Moore, Administrative Assistant/Treasurer
- BBD&E Station Chief
- SS Station Chief
- Officers, Firefighters, and EFRs
- Captain Bob Ritchie