



Township of Stone Mills Fire Master Plan

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Township of Stone Mills Fire Master Plan (2026)

Prepared by:

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Statement of Impartiality

The Loomex Group acted as a third-party consultant to develop this fire master plan. The company conducted impartial reviews and evaluated its findings against established legislation and industry best practices.

All findings and recommendations presented in this fire master plan are objective.

Disclaimer Regarding Recommendations

The recommendations in this fire master plan are intended to support the best interests of the Township of Stone Mills.

The recommendations have been designed to provide information that the Township of Stone Mills can use to address the current and anticipated fire protection needs in the community. However, some recommendations may require additional study or consideration before they are implemented.

Recommended Review Frequency

This fire master plan provides a long-term strategic vision for the Township of Stone Mills. Every effort has been made to ensure that the information provided in this fire master plan is accurate as of the date the document was finalized.

In order to remain effective, this fire master plan must be kept current with local needs and circumstances. At a minimum, the Township of Stone Mills should review this document annually to ensure the information it contains remains up to date. In addition, this fire master plan should be updated in five years, and it should be completely redone in ten years.

Executive Summary

Project Purpose

In September 2025, the Township of Stone Mills contracted The Loomex Group to develop a fire master plan (“**FMP**”).

The FMP project had the following goals:

- Identify and evaluate the current and anticipated fire protection needs in Stone Mills.
- Assess the fire protection services that Stone Mills currently receives.
- Provide data that Stone Mills can use to make informed decisions about the safety of its residents, businesses, visitors, and firefighters.
- Provide strategies and identify resources that Stone Mills can use to manage its current and anticipated fire protection needs adequately and cost-effectively.

The information in this FMP has been prepared for the Council of the Township of Stone Mills (“**Council**”) and the Stone Mills Fire Department (“**the Department**”).

Council and the Department can reference this FMP when they are making policy, organizational, capital, and operational decisions for the short term (0 to 5 years) and long term (5 to 10 years).

Project Development Process

The FMP development process included the following components:

- Evaluate the Department’s structure, programs, and levels of service.
- Meet with stakeholders from Stone Mills and the Department to gain first-hand insights about the community and the Department’s operations.
- Assess the current fire safety risks, needs, and circumstances in Stone Mills.
- Review recent fire loss statistics for Stone Mills and then compare them to current trends in order to estimate the community’s future fire protection needs.

After completing the tasks listed above, The Loomex Group consolidated its findings and developed this FMP document.

Each section of this FMP focuses on a specific area of the Department’s operations. The sections provide context for various legislative or operational topics and then present relevant findings. Each section of this document also includes a “Roadmap for Improvement” and a corresponding list of recommendations (as applicable).

Summary of Project Findings

Some of the Department's strengths are as follows:

- The Department has a well-resourced fleet and equipment program.
- The Department provides a strong volunteer presence across all areas of Stone Mills.
- The Department has well-established mutual aid and automatic aid agreements with neighbouring municipalities.

Some of the challenges facing the Department are as follows:

- The Department has low response numbers for incidents occurring during daytime hours.
- The Department requires more qualified members to train firefighters to receive DZ licences. In addition, retaining DZ licences requires a significant time commitment.
- The Department has a limited number of staff members who can perform prevention, education, and pre-planning activities.

Throughout this FMP, the Department's strengths and weaknesses are both given due consideration in order to provide a realistic picture of the Department's current capabilities and limitations.

Summary of Recommendations

This FMP contains various recommendations for Council and the Department to consider. The recommendations focus on several topics, such as:

- recruitment and retention
- training and certification levels
- asset management and replacements

All of the recommendations in this FMP are designed to prioritize the safety of Stone Mills' residents and firefighters. The recommendations are all within the township's means to implement, and they include ways for Stone Mills to act cost-effectively wherever possible.

Overall, this FMP outlines strategies and resources that will help Council and the Department provide an appropriate level of service to the Stone Mills community now and in the coming years.

Summary of Recommendations

Purpose of Recommendations

The recommendations in this FMP suggest practical improvements that the Department can reasonably complete within the next ten years¹ in order to:

- Meet legislative obligations.
- Adhere to best practices.
- Enhance operational effectiveness.
- Protect the safety of community residents, visitors, and businesses.
- Protect firefighter safety.

Additional Considerations

In order to provide Stone Mills with a feasible implementation schedule, each recommendation in this FMP includes the following considerations:

- Does the recommendation need to be implemented for compliance purposes?
- Does Council need to approve the recommendation before it is implemented?
- Does the recommendation need to be included in the Department's budget through the regular budgeting process?
- When should the recommendation be implemented?
 - Short-term: Implement the recommendation within two years.
 - Long-term: Implement the recommendation within five to ten years.
 - Ongoing: Implement the recommendation on an ongoing basis (as needed).

List of Recommendations

Table 1 collects the 61 recommendations found in this FMP.

¹ In addition to the formal recommendations, this FMP also contains information and observations that the Department can use to guide its operations over a longer term.

Table 1. List of recommendations.

Rec. #	Section	Recommendation	Considerations
3-1	Legislation	After the next election, the Fire Chief and the CAO should consider enrolling in the Essentials of Municipal Fire Protection seminar (facilitated by the Ontario Fire Marshal). Participating in this seminar will help ensure that all councillors in Stone Mills understand their roles and responsibilities under the Fire Protection and Prevention Act.	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing
3-2	Legislation	Stone Mills should update its Community Risk Assessment in 2028 to ensure the township remains compliant with the requirements of O. Reg. 378/18 (which falls under the authority of the Fire Protection and Prevention Act).	Mandatory: Yes Council approval: Yes Budget impact: Yes Timeframe: Short-term
3-3	Legislation	Stone Mills should implement and maintain a comprehensive accessibility plan to ensure that all physical spaces comply with applicable accessibility standards (as per the Accessibility for Ontarians with Disabilities Act).	Mandatory: Yes Council approval: Yes Budget impact: Yes Timeframe: Long-term
4-1	Bylaws and Service Levels	The Fire Chief should review the establishing and regulating bylaw for Stone Mills on an annual basis. The review should be used to confirm that the bylaw remains current with all emergency and non-emergency services provided by the Stone Mills Fire Department.	Mandatory: Yes Council approval: Yes Budget impact: No Timeframe: Short-term
4-2	Bylaws and Service Levels	The Stone Mills Fire Department should conduct pre-incident planning for high-risk occupancies in the community.	Mandatory: No Council approval: No Budget impact: No Timeframe: Long-term

Rec. #	Section	Recommendation	Considerations
4-3	Bylaws and Service Levels	The Stone Mills Fire Department should train two firefighters from each of its fire stations to the standard of NFPA 1006, Chapter 8: Common Passenger Vehicle Rescue. The firefighters should be trained to the technician level, and the certification should be obtained by July 2028.	Mandatory: Yes Council approval: No Budget impact: Yes Timeframe: Short-term
4-4	Bylaws and Service Levels	In order to meet the Council-approved level of service for water and ice rescue, the Fire Chief should ensure that the Stone Mills Fire Department's training program aligns with the applicable NFPA 1006 standard. In addition, the Fire Chief should ensure that all personnel are trained to the appropriate levels.	Mandatory: Yes Council approval: No Budget impact: Yes Timeframe: Short-term
4-5	Bylaws and Service Levels	The Stone Mills Fire Department should review all of its standard operating guidelines in order to identify which guidelines should become formalized policies.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Short-term
4-6	Bylaws and Service Levels	The Stone Mills Fire Department should prioritize having its firefighters complete the SP103 Wildland Firefighter Program.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Ongoing
5-1	Fire Service Agreements	The Fire Chief and the CAO should conduct comprehensive reviews of all existing agreements (both formal and informal) to ensure they remain relevant and effective.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term

Rec. #	Section	Recommendation	Considerations
6-1	Recruitment and Retention	In order to attract new firefighters, the Stone Mills Fire Department should develop a community-focused recruitment strategy that includes methods for building awareness, interest, and commitment among community members.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
6-2	Recruitment and Retention	Stone Mills should consider implementing a uniform allowance program to promote a consistent professional appearance for its firefighters, as well as strengthen the Stone Mills Fire Department's commitment to its members.	Mandatory: Yes Council approval: Yes Budget impact: Yes Timeframe: Short-term
6-3	Recruitment and Retention	The Stone Mills Fire Department should develop a comprehensive retention plan that includes training opportunities, recognition programs, flexible schedules, and financial incentives.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Long-term
6-4	Recruitment and Retention	The Stone Mills Fire Department should maintain and enforce its attendance management program. This initiative should involve regularly monitoring compliance with incident response and training benchmarks and providing supportive interventions when standards are not met.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Long-term
7-1	Departmental Communications	The Fire Chief should host monthly or quarterly meetings to provide all members of the Stone Mills Fire Department with updates on operations, training, equipment, and departmental goals.	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing

Rec. #	Section	Recommendation	Considerations
7-2	Departmental Communications	The Stone Mills Fire Department should investigate the use of a centralized digital platform (such as Microsoft SharePoint) to improve the way it shares information between its fire stations. A digital platform would enable secure access to documents, schedules, announcements, and training materials.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Long-term
7-3	Departmental Communications	The Stone Mills Fire Department should install a message board at the entrance to its fire stations in order to provide real-time updates on personnel availability and response status. These messages can also be integrated with the fire department's "Who's Responding" app information as a way to improve situational awareness and communication during emergency responses.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
7-4	Departmental Communications	The Fire Chief should identify and implement opportunities for current and future officers to enhance their team-building, conflict-resolution, and communication skills through targeted training and development initiatives.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Short-term
7-5	Departmental Communications	The Stone Mills Fire Department should enhance its external communications by ensuring that all public messages are clear, concise, and consistent. The fire department should also leverage multiple delivery formats (such as social media, community outreach initiatives, and the official municipal website) in order to maximize its reach and level of engagement with residents.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
8-1	Occupational Health and Safety	The Stone Mills Fire Department should incorporate recommendations from the Firefighter Guidance Notes into its training programs in order to enhance operational safety, standardize best practices, and ensure compliance with provincial health and safety regulations.	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing

Rec. #	Section	Recommendation	Considerations
8-2	Occupational Health and Safety	In order to reduce occupational cancer risks among firefighters, the Stone Mills Fire Department should integrate the Cancer Prevention Checklist into its health and safety protocols. The checklist should also be reviewed on a regular basis to ensure compliance and best practices.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Ongoing
8-3	Occupational Health and Safety	The Stone Mills Fire Department should invest in additional sets of bunker gear to ensure that its firefighters have access to clean, serviceable equipment when their primary gear is out for inspections, cleaning, or repair.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term
8-4	Occupational Health and Safety	The Fire Chief should formalize a program to reduce exposure to diesel exhaust. The Fire Chief should also explore ways to ensure that all apparatus emissions at the fire stations are ventilated to the exterior of the buildings. All programs and protocols related to diesel exhaust exposure should adhere to Firefighter Guidance Note #3-1 and the Cancer Prevention Checklist.	Mandatory: Yes Council approval: Yes Budget impact: Yes Timeframe: Ongoing
8-5	Occupational Health and Safety	The Joint Health and Safety Committee should adopt formalized terms of reference to ensure clarity, accountability, and compliance with best practices.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Ongoing
8-6	Occupational Health and Safety	The Fire Chief should hold regular officer meetings in order to strengthen leadership communication, operational consistency, and incident command proficiency within the Stone Mills Fire Department.	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing

Rec. #	Section	Recommendation	Considerations
8-7	Occupational Health and Safety	The Stone Mills Fire Department should establish a formalized Incident Safety Officer training program to enhance firefighter safety and adhere to NFPA 1521 standards.	Mandatory: Yes Council approval: No Budget impact: Yes Timeframe: Short-term
9-1	Fire Prevention and Public Education	The Fire Chief should ensure that the Stone Mills Fire Department begins tracking more data about its public education programs in its records management system. The information should include the types of programs being delivered and the age of program participants. The fire department should refer to this information when it designs future public education initiatives.	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing
9-2	Fire Prevention and Public Education	Over the next five to ten years, the Stone Mills Fire Department should plan a way to address the potential need to add more staff members to support expanded fire prevention initiatives. These additional staff members would help deliver public education, fire inspection, and home fire safety programs.	Mandatory: Yes Council approval: Yes Budget impact: No Timeframe: Long-term
9-3	Fire Prevention and Public Education	The Stone Mills Fire Department should implement a structured fire investigation program to ensure that it has multiple qualified/approved investigators.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
10-1	Training Program	The Stone Mills Fire Department should develop a comprehensive annual training plan to ensure that its firefighters maintain their core competencies and meet skill review requirements to remain operationally ready and compliant with NFPA standards.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Ongoing

Rec. #	Section	Recommendation	Considerations
10-2	Training Program	The Stone Mills Fire Department should investigate the need to adjust its annual training hours to ensure firefighters receive enough competency-based training to maintain operational readiness and compliance with NFPA standards.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Ongoing
10-3	Training Program	The Stone Mills Fire Department should establish a consistent and effective annual training program. The programs should set clear standards that align with NFPA requirements and departmental standard operating procedures.	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing
10-4	Training Program	The Fire Chief should formalize an officer development program for the Stone Mills Fire Department. This program should equip the officers with technical competencies, leadership skills, and the ability to meet the definition of a competent supervisor (as defined by the Occupational Health and Safety Act).	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Ongoing
10-5	Training Program	The Stone Mills Fire Department should make it a priority to ensure that all of its members achieve NFPA 1001, Level I and Level II certifications within the next 12 months.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Ongoing
10-6	Training Program	The Stone Mills Fire Department should prioritize the completion of NFPA 1002 (Driver/Operator) certification. The fire department should implement a structured program that aims to achieve at least 50 per cent certification within one year, and 75 per cent within 18 months.	Mandatory: Yes Council approval: No Budget impact: Yes Timeframe: Ongoing

Rec. #	Section	Recommendation	Considerations
10-7	Training Program	The Stone Mills Fire Department should focus on completing all competencies required to meet the level of service outlined in the establishing and regulating bylaw for Stone Mills.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Ongoing
10-8	Training Program	The Stone Mills Fire Department should establish a structured and consistent driver training and licensing program.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Ongoing
10-9	Training Program	Stone Mills should consider providing financial support to its firefighters so that they can obtain and maintain the licenses they need to operate the types of vehicles used by the Stone Mills Fire Department.	Mandatory: Yes Council approval: Yes Budget impact: Yes Timeframe: Ongoing
10-10	Training Program	The Stone Mills Fire Department should develop a formalized written driver/operator competency program. The program should clarify the initial and ongoing levels of proficiency that personnel who drive and operate vehicles are expected to obtain.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Short-term
10-11	Training Program	The Stone Mills Fire Department should establish a formal process for conducting a post-incident analysis and review. The goal of this process should be to strengthen operational effectiveness, enhance firefighter safety, and ensure compliance with NFPA standards and legal requirements.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term

Rec. #	Section	Recommendation	Considerations
10-12	Training Program	The Stone Mills Fire Department should consider implementing a blended learning model that incorporates online modules for the theory-based components of firefighter training. This approach would allow firefighters to complete theoretical coursework outside of their fire station, freeing up in-person sessions for practical, hands-on skills development.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
11-1	Response	The Stone Mills Fire Department should adopt the rural demand zone guidelines outlined in NFPA 1720, as doing so can help improve staffing and response capabilities by identifying shortfalls in staffing levels. The guidelines can also be referenced to help develop a staffing improvement plan.	Mandatory: No Council approval: No Budget impact: No Timeframe: Long-term
11-2	Response	The Stone Mills Fire Department should define the minimum crew size needed for an initial response that meets operational and safety requirements, which may include the need to have personnel make a direct response to emergency scenes (rather than attend their fire station first).	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
11-3	Response	The Stone Mills Fire Department should make full use of its existing real-time staffing dashboard in order to monitor which personnel are responding to emergency calls and ensure that the required vehicles have sufficient personnel assigned to them.	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing
12-1	Fire Department Structure	Stone Mills should transition the Fire Chief position to a full-time role, eliminating the current split between Public Works Manager and Fire Chief.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term

Rec. #	Section	Recommendation	Considerations
12-2	Fire Department Structure	Stone Mills should continue monitoring applicable indicators in order to determine whether there is a need for a dedicated Training/Fire Prevention Officer as part of the Stone Mills Fire Department's long-term strategy.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Long-term
12-3	Fire Department Structure	The Stone Mills Fire Department should continue making it a priority to strengthen its relationships with neighbouring fire departments, organizations, and professional associations.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Ongoing
13-1	Fire Stations and Related Facilities	Stone Mills should develop a plan to replace Station 1 – Yarker with a new fire station.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Long-term
13-2	Fire Stations and Related Facilities	Council should allocate operating and capital funding to the Stone Mills Fire Department through the annual budget process in order to ensure the fire department has money to maintain its fire stations over the course of each facility's anticipated life cycle.	Mandatory: Yes Council approval: Yes Budget impact: Yes Timeframe: Ongoing
13-3	Fire Stations and Related Facilities	Council should continue to support and invest in the Stone Mills Fire Department's training program and associated training areas.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Ongoing

Rec. #	Section	Recommendation	Considerations
14-1	Water Supply	The Stone Mills Fire Department should identify the location of each private hydrant in Stone Mills. The fire department should then ensure that those hydrants are inspected and flow-tested at least once every year in accordance with NFPA 25.	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing
14-2	Water Supply	Stone Mills should conduct a feasibility study to evaluate the installation of additional dry hydrants, with the goal of enhancing fire protection and improving water supply capabilities for firefighting operations.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Long-term
14-3	Water Supply	Stone Mills should implement a program to ensure that all of its existing dry hydrants undergo annual testing and necessary repairs, as this will ensure reliability and readiness of the hydrants for firefighting operations.	Mandatory: Yes Council approval: No Budget impact: Yes Timeframe: Ongoing
15-1	Asset Management	The Fire Chief should continue to refine a formalized equipment maintenance program for the Stone Mills Fire Department. The plan should provide the fire department with a strategy for ensuring that all of its equipment reaches the intended life cycle (or is replaced on an as-needed basis).	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing
15-2	Asset Management	The Stone Mills Fire Department should continue to complete applicable maintenance work on all of its equipment (from hand tools to specialized gear) in order to ensure each asset functions reliably during emergency responses. The maintenance work may also help extend the service life of those assets.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Ongoing

Rec. #	Section	Recommendation	Considerations
15-3	Asset Management	The Stone Mills Fire Department should investigate the addition of two rapid intervention bags so that each of its fire stations is equipped with critical rescue devices to enhance firefighter safety.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Short-term
15-4	Asset Management	The Stone Mills Fire Department should implement an equipment management strategy that balances immediate operational readiness with long-term asset sustainability and cost-effectiveness.	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing
15-5	Asset Management	The Stone Mills Fire Department should investigate the installation of repeaters at each of its fire stations in order to enhance coverage and eliminate dead zones. The Fire Chief should then submit the report to Council for consideration and approval.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
15-6	Asset Management	The Stone Mills Fire Department should formally integrate the standards developed by Fire Underwriters Survey into its asset management plan. The standards should be used to guide apparatus replacement priorities, help optimize fleet composition, and support the justification of future capital investments.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
16-1	Documentation and Records Management	The Stone Mills Fire Department should fully leverage the capabilities of its current records management system in order to centralize the fire department's critical functions. These functions include incident reporting, training records, property inspections, asset management, hydrant and water availability locations, scheduling, and analytics.	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing

Rec. #	Section	Recommendation	Considerations
16-2	Documentation and Records Management	In order to enhance operational efficiency, improve firefighter safety, and deliver more timely and effective emergency responses, the Stone Mills Fire Department should consider using modern technological tools that can be integrated with a records management system.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term

1.0 Introduction

1.1 Purpose of a Fire Master Plan

A fire master plan is a strategic planning document that evaluates a fire department from administrative, legislative, and operational perspectives. In addition to evaluations, an FMP includes recommendations designed to enhance the fire department's operations.

The goal of an FMP is to provide information that a fire department can use to accomplish the following initiatives:

- Protect the safety of local firefighters, residents, and businesses.
- Adjust or enhance services to meet current and anticipated needs.
- Remain compliant with applicable legislation and training requirements.
- Explore opportunities to introduce shared services.
- Prepare budgets, implementation plans, and asset management plans.

Overall, an FMP is intended to guide a fire department's operations and allow it to meet the community's current and anticipated risks, needs, and circumstances for the foreseeable future.

1.2 Fire Master Plan for the Township of Stone Mills

1.2.1 Project Background

In September 2025, the Township of Stone Mills contracted The Loomex Group to complete an FMP. The township stated that the FMP must provide information to help the Department make policy, capital, and organizational decisions over a multi-year timeline. In addition, all recommendations must be designed to help the Department align its operations with legislative demands and industry standards, and the proposed strategies must be scalable so that the Department can adapt its services to meet evolving demands for service.

In order to meet the stated objectives, the FMP development process included a review of the Department from legislative, administrative, and operational perspectives. The community's past, current, and anticipated fire protection needs were also considered. Based on the findings obtained during the FMP development process, various recommendations have been developed to help Stone Mills enhance community safety for its residents, visitors, and businesses. These recommendations include strategies related to governance, services, and personnel. All recommendations prioritize the safety of local residents and firefighters, and they aim to provide Stone Mills with ways to enhance its services in a cost-effective manner.

1.2.2 Initial Stakeholder Engagement Process

Start-Up Meeting

The Loomex Group began the FMP development process by meeting with the Stone Mills Fire Chief (**“the Fire Chief”**) to review the project’s work scope and framework.

Following the start-up meeting, The Loomex Group provided the Fire Chief with a project framework for review and approval.

Stakeholder Engagement

After the project framework was approved, The Loomex Group held engagement sessions with the following stakeholders from Stone Mills:

- Jeff Thompson, Fire Chief
- James Richmond, Deputy Fire Chief
- Jason White, CAO
- reeve and councillors
- fire officers
- firefighters

The stakeholder consultations were held in order to gain insights about the fire protection services in Stone Mills from the individuals who approve or provide those services.

1.2.3 Data Collection Process

Document Reviews

The Loomex Group reviewed various administrative, legislative, and operational documents about Stone Mills and the Department, such as:

- applicable legislation, bylaws, and agreements
- municipal maps
- operating and capital budgets
- organizational charts
- current fire protection services
- standard operating guidelines (**“SOGs”**), policies, and other documents that provide directions for the local fire service personnel

Site Visits

Representatives of The Loomex Group spent time in Stone Mills to observe the community firsthand.

Engagement with Fire Service Personnel

The Loomex Group facilitated a SWOT analysis session with the Department's personnel in order to gather their opinions about the Department's operations and organizational structure.

The participants also discussed the Department's current and anticipated needs.

1.2.4 Drafting the Fire Master Plan

Document Development Process

The Loomex Group consolidated the findings it obtained during the data collection process and then began drafting the FMP document.

The following questions were considered while the FMP was being drafted:

- What can the Department do to enhance firefighter safety?
- What can the Department do to enhance the community's well-being?
- Are there opportunities for the Department to introduce shared services?
- Are there opportunities for the Department to save or avoid costs?

The Loomex Group also identified baselines and benchmarks that the Department can use to perform an ongoing self-assessment of its service delivery capabilities.

Ongoing Review Process

The FMP development process incorporated regular meetings with the Department's personnel. These meetings ensured that the FMP benefited from continual stakeholder contributions.

Document Structure

The information in this FMP is organized into four main categories.

Context: The information included under a heading that reads "Context" is intended to provide relevant background details about the legislation, standards, or best practices that are related to a specific topic. This information is applicable to the Ontario fire service in general, not any fire department exclusively.

Findings: The information included under a heading that reads “Findings” is intended to explain how the legislation, standards, or best practices discussed under the preceding “Context” heading are directly applicable to Stone Mills and the Department.

Roadmap for Improvement: The information included under the heading “Roadmap for Improvement” provides a detailed explanation of the strategies that have been developed for Stone Mills.

Recommendations: The information included under the heading “Recommendations” includes a list of the strategies that have been developed specifically for Stone Mills and the Department. In order to understand the rationale for the recommendations, Stone Mills and the Department can refer to the information provided under the “Context,” “Findings,” and “Roadmap for Improvement” headings in the applicable sections of this FMP.

1.2.5 Finalizing the Fire Master Plan

The final FMP deliverables are as follows:

- finalized copies of the FMP (provided to the Fire Chief and the CAO of Stone Mills)
- a presentation for Council that summarizes key findings and recommendations from the finalized FMP document

2.0 Community Characteristics

2.1 Overview of the Township of Stone Mills

The Township of Stone Mills is located in Lennox and Addington County, and it is bordered by the following municipalities:

- Township of Addington Highlands (to the north)
- Township of Central Frontenac and Township of South Frontenac (to the east)
- Town of Greater Napanee and Loyalist Township (to the south)
- Municipality of Tweed (to the west)

According to its website, Stone Mills is “a rural municipality, respectful of its history and culture, offering a variety of residential, recreational and commercial opportunities that provides its residents, businesses and visitors with a full range of services while promoting a healthy lifestyle, high community standards, business success, accountability and transparency and prosperous relationships.”²

Stone Mills contains a number of lakes and rivers, trails, small or private roads, and forested areas. Due to these geographic features, several portions of Stone Mills have limited accessibility. For instance, some remote-access areas only have one road to and from a given site. Other remote-access areas are only accessible by boat.

2.2 Overview of the Stone Mills Fire Department

Structure

The Stone Mills Fire Department is a composite fire department that provides fire suppression, code enforcement, and public education services for the residents, businesses, and visitors of Stone Mills.

Personnel

As of this FMP, the Department consists of the following personnel:

- 1 fire chief
- 1 deputy fire chief
- 4 district chiefs
- approximately 100 volunteer/paid-by-call firefighters

² Township of Stone Mills, “Community Profile.”

Fire Stations

As of this FMP, the Department has four fire stations:

Station 1 – Yarker
9 Mill Street
Yarker, ON K0K 3N0

Station 2 – Enterprise
2861 County Road 14
Enterprise, ON K0K 1Z0

Station 3 – Newburgh
12 Factory Street
Newburgh, ON K0K 2S0

Station 4 – Tamworth
684 County Road 4 West
Tamworth, ON K0K 3G0

2.3 History of the Stone Mills Fire Department

Context

Knowing the history of a fire department is important because it helps community members understand how past events have shaped the types of fire services they currently receive, as well as the types of services they may receive in the future.

Understanding the history of the local fire department also helps residents and firefighters appreciate the challenges that earlier firefighters needed to overcome. For example, the department's history can educate the community about the risks and sacrifices involved in fire protection, as well as the importance of fire prevention and public education activities.

Discussing the history of a fire department can also reveal how advancements in the fire service (such as advancements in equipment, training, and safety protocols) have improved efficiency and firefighter safety.

Finally, an understanding of a fire department's history may promote a sense of pride, tradition, and camaraderie among local firefighters.

Findings

The Department was established in 1998 through the amalgamation of three existing fire services: the Camden East Township Fire Department, the Newburgh Fire Department, and the Sheffield Fire Department.

Since its amalgamation, the Department has become a modern, community-focused provider of emergency services. The Department is staffed by approximately 100 volunteer firefighters, and it is supported by full-time administrative and leadership personnel. The Department provides coverage for a primarily rural area of over 700 km², making it one of the larger municipal response zones in Eastern Ontario.

Over its 28-year history, the Department has undergone a substantial transformation. For instance, the Department has taken steps to remain compliant with evolving provincial fire service legislation, and it has strived to modernize its training, staffing, operations, and equipment.

3.0 Legislation and Standards

3.1 Overview

Legislation

In Ontario, fire departments must operate in accordance with numerous acts and other types of legislation, such as:

- Fire Protection and Prevention Act, S.O. 1997 (“**FPPA**”)
- Occupational Health and Safety Act, R.S.O. 1990 (“**OHSA**”)
- Emergency Management and Civil Protection Act, R.S.O. 1990 (“**EMCPA**”)
- O. Reg. 332/12: Building Code (“**OBC**”)
- O. Reg. 213/07: Fire Code (“**OFC**”)
- O. Reg. 343/22: Firefighter Certification
- applicable municipal bylaws

For brief definitions of these documents—as well as definitions of other applicable legislation—see Appendix C of this FMP.

Industry Standards and Guidelines

In addition to legislation, the following industry standards and guidelines influence how fire departments operate:

- National Fire Protection Association (“**NFPA**”) standards
- Office of the Fire Marshal (“**OFM**”) guidelines and memoranda
- Ontario Fire Service Health and Safety Committee Firefighter Guidance Notes

The resources listed above provide baselines that fire departments should use to gauge the effectiveness of their operations and safety initiatives.

3.2 Legislative Compliance

Context

The FPPA outlines the minimum standards that municipalities and fire departments must meet. Various FPPA requirements also relate to other regulations and codes, such as the OFC and OBC (which deal with life safety systems).

As per section 6 (3) of the FPPA, each fire chief is responsible for ensuring that their fire department is compliant with applicable legislation and standards.

Findings

Table 2 lists some of the legislative requirements that all fire departments and municipalities must meet. The table indicates whether Stone Mills and the Department are compliant with the stated requirements.

Table 2. Selected requirements of the Fire Protection and Prevention Act.

Reference	Requirement	Compliant?
FPPA, 2 (2) (b)	Establish a fire department.	Yes
FPPA, 2 (1) (a)	Establish a program in the municipality which must include public education.	Yes
FPPA, 6 (1)	Appoint a fire chief for the fire department.	Yes
O. Reg. 364/13	Implement a vulnerable occupancy program.	Yes
O. Reg. 365/13	Complete inspections upon complaint.	Yes
O. Reg. 365/13	Complete inspections upon request.	Yes
O. Reg. 378/18	Complete a community risk assessment.	Yes

As indicated in the table above, Stone Mills and the Department are compliant with the stated requirements of the FPPA.

Going forward, Council and the Department should continue to allocate the time and resources needed to meet their legislative obligations.

3.3 Community Risk Assessments

Context

On July 1, 2019, the Province of Ontario passed O. Reg. 378/18. This regulation falls under the authority of the FPPA.

According to O. Reg. 378/18, every municipality in the province is required to complete a new community risk assessment (“**CRA**”) every five years. As a best practice, municipalities should also consider reviewing their CRAs annually or when there are any significant changes in the community.

A CRA identifies risks within the community, noting each risk’s likelihood and its potential adverse effects on health, property, organizations, reputations, and the environment.

In order to help communities complete CRAs, the OFM has designed a risk matrix that compares a risk’s likelihood and consequence and generates a risk level accordingly.

Completing a risk matrix can help a community determine which of its risks are the most urgent to address. CRAs also contain a wide range of other information about a community, including demographic data and historical fire loss statistics.

Each fire department should review the risks identified in its municipality's CRA. The document will contain information that the fire department can use to develop public education activities and fire prevention initiatives aimed at addressing the threats the community is most likely to face.

Findings

The Loomex Group developed a CRA for Stone Mills in 2023. The completion of this document ensured compliance with O. Reg. 378/18.

The CRA for Stone Mills provides the Department with information that it can use to develop fire prevention initiatives aimed at enhancing community safety. Going forward, the Department should use the CRA's findings to complement the information provided in this FMP.

3.4 Accessibility for Ontarians with Disabilities Act

Context

The Accessibility for Ontarians with Disabilities Act ("**AODA**") came into effect on June 13, 2005. The intention of the AODA is to improve accessibility features in all public establishments in Ontario by 2025.

It is important to note that fire stations are publicly funded buildings, which means they should be accessible and inclusive spaces for all members of the public. However, many fire departments in Ontario are operating from stations that were constructed before the introduction of the AODA. Consequently, numerous fire departments do not have facilities that meet accessibility requirements.

Findings

The work scope for this FMP did not include an assessment to determine whether the Department's fire stations are compliant with the AODA.

However, based on a cursory visual review, the fire stations appear to have potential accessibility barriers, such as limited wheelchair access, a lack of automatic door openers, and the absence of accessible washroom facilities. A formal accessibility audit is recommended to confirm compliance and identify necessary improvements.

3.5 Emergency Management

3.5.1 Requirements of the Emergency Management and Civil Protection Act

Context

In order to receive their annual compliance recognition, municipalities must meet specific requirements of the EMCPA. Some examples of these requirements are as follows:

- Establish an emergency management program (“**EMP**”) and an EMP committee.
- Provide annual emergency management training to all members of the local emergency control group (“**ECG**”).
- Conduct an annual exercise that uses the EMP and involves all members of the ECG.
- Designate a community emergency management coordinator (“**CEMC**”), as well as an alternate CEMC.
- Review the community’s critical infrastructure annually (making updates as required).
- Review the community’s hazard identification and risk analysis annually (making updates as required).

The EMCPA states that municipalities, not fire departments, are responsible for fulfilling emergency management obligations. However, many municipalities appoint a member of their fire department’s senior management team to serve as their primary CEMC (or alternate CEMC).

Additional emergency management requirements are governed by O. Reg. 380/04.

Many of the duties associated with emergency management, such as response efforts, are performed in a facility called an emergency operations centre (“**EOC**”).

Findings

Table 3 summarizes some of the requirements found in O. Reg. 380/04. The table indicates whether Stone Mills and the Department are compliant with the applicable requirements.

Table 3. Selected requirements outlined in O. Reg. 380/04.

Emergency Management Requirement	Findings
Appoint a primary CEMC and an alternate CEMC.	Compliant
Establish an EOC and an alternate EOC	Compliant
Establish an EMP committee.	Compliant
Develop an emergency plan.	Compliant
Review the community's hazard identification and risk analysis annually (making updates as required).	Compliant
Review the community's list of critical infrastructure annually (making updates as required).	Compliant

3.5.2 Emergency Preparedness and Business Continuity

Context

As per O. Reg. 380/04 and the EMCPA, an EMP must include a public education component that addresses emergency preparedness. According to the Government of Canada's website, emergency preparedness "includes all activities, such as plans, procedures, contact lists and exercises, undertaken in anticipation of a likely emergency."³

Another essential part of emergency preparedness is business continuity. Various disasters and large-scale emergencies can severely impact the businesses in a community. For example, some incidents may cause a temporary suspension of services for certain businesses. If an incident requires a business to remain closed for an extended period, the loss of revenue may prove so great that the business is unable to reopen. Business closures can lead to a loss of jobs and services in a community, as well as a loss of revenue to the municipality.

It is also worth remembering that a municipality is often the largest employer in the community, which means that a municipality can consider itself a business. As such, it is in a municipality's best interest to develop a business continuity plan (also known as a continuity of operations plan). Doing so can help ensure that there is a strategy in place to guide continuity and recovery operations, which can help safeguard the economic standing of the community.

³ Health Canada, "Emergency Preparedness."

Findings

Stone Mills provides education on emergency preparedness and ensures that the community has access to the municipal emergency plan. However, Stone Mills does not currently have a formal business continuity plan for responding to disruptions to essential services during emergencies.

3.6 NFPA Certification

Context

O. Reg. 343/22 requires fire service personnel to obtain certifications to specific NFPA standards. Firefighters must obtain these certifications in order to confirm they have the skills and knowledge to carry out their duties safely and effectively.

For more information about NFPA certification, see section 10.7 of this FMP.

Findings

The Department is currently working on certifying all of its firefighters (including its recruits) to the standards of NFPA 1001, Levels I and II. In addition, all of the Department's officers are becoming certified to meet the NFPA 1021 (Fire Officer) and NFPA 1041 (Fire Service Instructor) standards.

3.7 Roadmap for Improvement

Legislative Compliance

The Department should ensure that every newly elected council member receives a copy of *Essentials of Municipal Fire Protection – A Decision-Maker's Guide*. In addition, a training session should be scheduled with the OFM.

Stone Mills should arrange for the OFM seminar to take place within the first 90 days of the new Council term. The session should be arranged by contacting the OFM and selecting the preferred delivery format (in-person session or virtual setting). In order to emphasize its importance, the seminar should be integrated into the official Council orientation package, making it a mandatory component of a councillor's onboarding. The councillors should also be provided with supporting materials that clearly outline their responsibilities under the FPPA. Refresher sessions should be scheduled every four years or whenever legislative changes occur.

Finally, the Fire Chief and the CAO should engage with the current Council to secure a commitment that OFM training will remain part of the onboarding process for future councillors, as this can ensure continuity and governance in municipal fire protection.

These initiatives should be included as key priorities in the Department's strategic plan.

Community Risk Assessment

Stone Mills should implement a five-year cycle for updating its CRA (as shown in Table 4). Doing so will help the township maintain compliance with O. Reg. 378/18 and conduct effective fire protection planning.

Table 4. Five-year update cycle for community risk assessment.

Year	Tasks
Year 1	Implement the strategies recommended in the CRA (in accordance with the findings of this FMP).
Years 2 to 4	- Continue implementing the strategies recommended in the CRA. - Monitor changes to demographics, risks, and hazards in Stone Mills and maintain the document accordingly.
Year 5	Develop a new CRA to ensure all content is up to date.

Accessibility for Ontarians with Disabilities Act

In order to achieve compliance with the AODA, Stone Mills should conduct a formal accessibility audit of its fire stations. The results of the audit should be used to confirm the current compliance status of those facilities and to identify areas for improvement. This information can be used as the basis of a comprehensive accessibility plan.

3.8 Recommendations

Recommendations regarding legislation in Stone Mills are as follows:

- 3-1. After the next election, the Fire Chief and the CAO should consider enrolling in the Essentials of Municipal Fire Protection seminar (facilitated by the Ontario Fire Marshal). Participating in this seminar will help ensure that all councillors in Stone Mills understand their roles and responsibilities under the Fire Protection and Prevention Act.
- 3-2. Stone Mills should update its Community Risk Assessment in 2028 to ensure the township remains compliant with the requirements of O. Reg. 378/18 (which falls under the authority of the Fire Protection and Prevention Act).
- 3-3. Stone Mills should implement and maintain a comprehensive accessibility plan to ensure that all physical spaces comply with applicable accessibility standards (as per the Accessibility for Ontarians with Disabilities Act).

4.0 Bylaws and Service Levels

4.1 Overview

In Ontario, a bylaw is a local law enacted by a municipality under the authority of the Municipal Act, 2001. Municipalities use bylaws to regulate various aspects of their governance, including municipal services, operational procedures, and enforcement protocols. Fire protection services are also established and formalized through bylaws.

Each municipality faces unique risks, demands, and community circumstances. These factors influence which fire protection services should be provided by the local fire department. For instance, vehicle extrication is a service that is needed in many communities. However, technical or heavy urban rescues are specialized services that may only be necessary in specific jurisdictions.

After identifying which services are needed in the community, it is important to determine a level of service for the fire department. That level of service should align with community needs and available resources.

4.2 Establishing and Regulating Bylaw

Context

An establishing and regulating bylaw (“**E&R bylaw**”) is used to specify which services a fire department must deliver to its community. The bylaw also sets a level of service for the local fire service personnel.

In order to develop an E&R bylaw, a municipal council must assess its community’s risks, needs, and circumstances. The local fire chief should also be involved in discussions about the content of the bylaw.

Once a municipal council formalizes its community’s E&R bylaw, the councillors and the fire chief must review and update the document on a regular basis to make sure it remains current with the community’s needs. The councillors must also approve updates to the E&R bylaw each time there is a change to the local fire department’s structure, services, or operations (for both emergency and non-emergency services). For instance, implementing recommendations from an FMP may require a council to update the community’s E&R bylaw. As a best practice, an updated version of the E&R bylaw should be presented to the council for consideration and approval before any recommendations are implemented.

As noted in section 3.6 of this FMP, firefighters must obtain NFPA certification in order to deliver specific firefighting services (as per O. Reg. 343/22). The type of NFPA certification a firefighter must obtain depends on the level of service they are expected to provide, which is an item that can be included in an E&R bylaw.

Formally setting a level of service in the E&R bylaw will allow firefighters to focus on obtaining the NFPA certifications that are applicable to them. In addition, a fire department can reference the E&R bylaw when it is time to review its training program. Doing so may help identify whether any gaps exist in the current program.

Findings

The current E&R bylaw for Stone Mills is Bylaw No. 2022-1152. According to this bylaw, the Department is approved to deliver the following services:

- basic firefighting services
- structural firefighting services
- interior search and rescue services
- interior fire suppression services
- exterior fire suppression services
- rural firefighter operations (including superior tanker shuttle services)
- vehicle firefighting services
- grass, brush, and forestry firefighting services
- marine firefighting services
- automatic aid response services
- mutual aid response services
- tiered medical response services
- ambulance response services
- police assistance services
- public assistance services
- public hazard assistance services
- vehicle accident and vehicle extrication services
- transportation incidents involving vehicles, trains, aircraft, and watercraft
- hazardous materials response services
- water and ice rescue services (including surface water resources, ice rescues, and remote-area responses)
- community emergency plan response services
- OFM assistant services: fire suppression (as required by the FPPA)
- fire prevention services (including public education and code enforcement)

4.3 Core Services

Core services are the main services that most fire departments offer. These services include interior and exterior fire suppression, medical responses, and vehicle extrication.

A fire department can determine its core services based on the following considerations:

- How many calls does the fire department receive for a specific type of service?
- What risk does the threat pose to the community?
- Is it affordable to provide a specific service?
- Does the local municipal council need to approve the service before it is offered?

After a municipal council approves a list of core services for its fire department, the fire department must strive to become proficient at delivering those services.

It is vital for the fire department to become proficient at delivering its core services before it attempts to develop specialized services. In order to have an acceptable level of proficiency, a fire department should have appropriate documentation, training, and equipment in place across the organization. A fire department should only consider delivering specialized services after verifying that it has met those criteria, as it is unlikely that a fire department will provide specialized services effectively if it does not attain proficiency in its core services.

4.3.1 Firefighting Services

Context

Fire departments can provide a variety of firefighting services. A common example of these services is structural firefighting, which is often divided into either interior or exterior structural firefighting (as found in NFPA 1001 levels I and II). Other types of firefighting services are as follows:

- firefighting in areas that are not protected by fire hydrants
- brush fires
- marine firefighting
- mutual aid response to other municipalities

Findings

Fire Suppression

According to Bylaw No. 2022-1152, the Department is approved to provide both interior and exterior fire suppression services.

As noted in section 2.2, the Department has a complement of 100 suppression firefighters. When an emergency occurs, firefighters receive notifications through a paging system or the “Who’s Responding” mobile application (which is a communication and tracking tool for emergency services personnel). For incidents involving fires, schools, or commercial buildings, the system automatically triggers a two-station response. This protocol ensures an adequate number of personnel and resources are available to manage high-risk situations and safeguard community safety.

A single-station response is the standard approach for incidents that do not involve fires. Examples of these incidents include medical emergencies, rescues, and alarm activations. This response model is designed for efficiency and flexibility. If an incident escalates in complexity or severity, a second station can be dispatched to provide additional support. The purpose of this strategy is to ensure appropriate coverage while minimizing unnecessary deployments.

The Department also responds to wildland fires, including vegetation fires and brush fires.

For more information about the Department’s response times, as well as challenges related to delivering firefighting services, see section 11 of this FMP.

Fire Prevention Services

The Department’s core services include various fire prevention services, such as public education and code enforcement initiatives.

For more information about the Department’s fire prevention services, see section 9 of this FMP.

Mutual Aid Support

The Department’s core services include mutual aid support. This support allows the Department to provide vehicles and firefighters to neighbouring municipalities upon request.

For more information about the Department’s participation in mutual aid services, see section 5 of this FMP.

4.3.2 Multi-Storey Emergencies

Context

As the number of residents living in Ontario increases, multi-storey buildings are becoming more common in many municipalities.

Fires in multi-storey occupancies are more complex than fires in single-family dwellings. The greater level of complexity is due to several factors, such as:

- Multi-storey fires require a larger effective response force.⁴ The responding fire crew must have enough personnel to control the building's lobby, elevator, stairwells, and corridors while conducting firefighting activities on multiple floors.
 - An effective response to a multi-storey emergency often requires a unified approach between multiple fire departments, especially when automatic aid or mutual aid is activated.
- It takes more time for fire crews to get into position to extinguish a fire in a multi-storey occupancy.
- In multi-storey occupancies, fires can spread vertically.
- In multi-storey occupancies, smoke can travel from one affected unit to another, endangering many building occupants.

Findings

As of this FMP, Stone Mills does not contain any buildings that are over three storeys high, but there are some multi-storey facilities.

A portion of the local Goodyear plant is a multi-storey facility, and responding to this site is a shared responsibility between the Department and Greater Napanee Fire and Rescue. The Strathcona Paper Mill is also a multi-storey facility.

4.3.3 First Responder Medical Services

Context

Many fire departments provide medical services. Often, these services are examples of "first response services." If a fire department provides first response services, it means that the firefighters are trained to deliver immediate medical care (such as CPR, defibrillation using AEDs, oxygen therapy, and basic first aid) before paramedics arrive. These services provide critical care during the crucial early minutes of a medical emergency.

⁴ For more information about the concept of an effective response force, see section 11.2 of this FMP.

It is common for fire departments to partner with local EMS crews in order to ensure seamless care for affected individuals.

Findings

According to Bylaw No. 2022-1152, the Department is approved to provide tiered medical response services.

As of this FMP, the Department has a tiered medical response agreement with the Lennox and Addington County Paramedic Services (“**LAPS**”). The agreement allows the Department to work with the LAPS to provide medical care depending on the severity of the emergency. This arrangement ensures that the right level of care is dispatched to medical emergencies, optimizing resources and response times. Under the current agreement, the Department is approved to respond to the following types of medical emergencies:

- cardiac arrest
- airway obstruction
- unconscious person
- motor vehicle collision
- off-road rescue
- code red
- EMS delayed for more than 15 minutes

The Department also has a memorandum of understanding that outlines an arrangement with the Kingston, Frontenac and Lennox & Addington Health Unit (“**KFL&A Health Unit**”) to provide Naloxone kits to police and fire service personnel. The kits are to be used in the event of an opioid overdose in the community.

4.3.4 Common Passenger Vehicle Rescue

Context

Fire departments provide vehicle extrication services in order to ensure the safe removal of people who are trapped in vehicles after collisions.

In order to perform extrication duties, firefighters must be trained to use specialized tools (such as hydraulic cutters, spreaders, and stabilizing equipment) to dismantle or move parts of a vehicle carefully without causing further injury to victims. This service is critical for quickly accessing and treating injured individuals, especially when time is a major factor in survival.

Findings

According to Bylaw No. 2022-1152, the Department is approved to provide the following vehicle accident and vehicle extrication services:

- Respond to vehicle accidents.
- Stabilize emergency scenes and vehicles.
- Provide aid to injured or trapped persons.
- Mitigate adverse effects on the natural environment.

In addition to the services listed above, vehicle search-and-rescue services (including extrication services) shall be provided at the technician level in accordance with NFPA 1670.⁵

By 2028, the Department plans to certify two personnel at each of its fire stations to the standard of NFPA 1006, *Standard for Technical Rescue Personnel Professional Qualifications*, Chapter 8: “Common Passenger Vehicle Rescue.” Doing so will help the Department ensure that it has the technical competency to conduct safe and effective extrication operations.

4.4 Specialized Services

Context

The following NFPA standards provide recommendations related to specialized services:

- NFPA 1006, *Standard for Technical Rescue Personnel Professional Qualifications*, outlines the minimum job performance requirements for technical rescue personnel.⁶
- NFPA 1670 sets the operational guidelines for various search and rescue services, as well as the planning and training related to those services.
 - NFPA 1670 is included in the consolidated standard NFPA 2500, *Standard for Operations and Training for Technical Search and Rescue Incidents and Life Safety Rope and Equipment for Emergency Services*.

⁵ NFPA 1670 is included in the consolidated standard NFPA 2500, *Standard for Operations and Training for Technical Search and Rescue Incidents and Life Safety Rope and Equipment for Emergency Services*.

⁶ As of July 1, 2028, fire departments delivering select specialized services will be required to train personnel to the relevant standards of NFPA 1006 (in accordance with O. Reg. 343/22). For more information about this regulation, see section 10.7 of this FMP.

The NFPA has also outlined three levels of operational capability for technical rescue services:

- **Awareness Level:** This level represents the minimum capability of organizations that respond to technical search and rescue incidents.
- **Operations Level:** This level represents the capability of organizations to respond to technical search and rescue incidents and to identify hazards, use equipment, and apply limited techniques specified in this standard to support and participate in technical search and rescue incidents.
- **Technician Level:** This level represents the capability of organizations to respond to technical search and rescue incidents and to identify hazards, use equipment, and apply advanced techniques specified in this standard necessary to coordinate, perform, and supervise technical search and rescue incidents.⁷

In order to determine an appropriate level of service for specialized services, a fire department should take the following steps:

1. Conduct a risk assessment to identify the types of technical rescue incidents most likely to occur in the local area.
2. Determine the appropriate level of operational capability (awareness, operations, or technician) by considering the following questions:
 - Does the fire department have enough firefighters to deliver specialized services?
 - How will offering specialized services impact firefighter safety?
 - Does the fire department have the equipment needed to deliver specific specialized services? If so, what is the condition of that equipment?
 - What initial level of training will the firefighters need to complete before they can provide specific services safely and effectively? Can the fire department provide that training to its firefighters?
 - What level of ongoing training will the firefighters need to complete to maintain the necessary knowledge and skill levels that specialized services require?
 - Is there any current documentation that supports the need for specific specialized services in the community?
 - How frequently do incidents requiring the provision of specialized services occur in the community?

⁷ National Fire Protection Association, *NFPA 2500, Standard for Operations and Training for Technical Search and Rescue Incidents and Life Safety Rope and Equipment for Emergency Services*.

- Does the municipality have the resources needed to fund the cost of having the fire department provide specialized services?
- 3. Develop standard operating procedures and training programs that align with NFPA 1670 and procure appropriate equipment.

By aligning its technical rescue services with NFPA standards, a fire department can ensure that its personnel are properly trained, equipped, and organized to perform rescues in a consistent, competent, and compliant manner. This alignment can also reduce the level of risk for both responders and members of the public.

Fire departments and municipalities should also reference NFPA 1006 and NFPA 1670 when communicating proficiency expectations to fire service personnel. Reviewing these standards can also provide an enhanced understanding of risks, as well as better practices for guiding and supervising fire service personnel.

As noted in section 4.3, a municipality must ensure that its firefighters are proficient at delivering their core services before they attempt to deliver any specialized services. Although infrequent, calls that involve specialized services often place firefighter safety at a significantly higher risk than calls requiring the provision of core services. Most specialized services are also costly to deliver, and many require firefighters to complete ongoing training to obtain applicable certifications.

Findings

According to Bylaw No. 2022-1152, the following specialized services are currently provided in Stone Mills:

- Tiered Medical Assistance Services: These services are provided in accordance with an established tiered emergency medical response agreement.
- Surface Water Rescue Services: These services shall be provided in accordance with NFPA 1670.
- Ice Rescue Services: These services shall be provided in accordance with NFPA 1670.

Each of the services listed above has high associated costs. The services also require the Department's personnel to dedicate a significant amount of time to completing training and certification requirements.

The following subsections discuss the types of specialized services that are relevant to Stone Mills and the Department.

4.4.1 Ice and Water Rescue

Overview of Ice and Water Rescue

Fire departments provide surface water, ice, and watercraft rescue services in order to respond to emergencies involving people in distress in water. These services are important in communities with lakes, rivers, and seasonal ice hazards.

Surface water and ice rescues require firefighters to use specialized techniques to protect the safety of victims and rescuers in challenging conditions (such as cold temperatures and unstable surfaces). Firefighters must also know how to use various specialized equipment (such as dry suits, throw bags, inflatable boats, and other related rescue equipment).

The fire departments that perform these kinds of rescues should reference NFPA standards.

Small Commercial Vessels

Many fire departments use small commercial vessels to deliver surface water rescue services. Transport Canada defines a small commercial vessel as follows:

[A commercial vessel is] a vessel that is not a pleasure craft or used for commercial fishing. [...] Vessels of all types, including human-powered vessels and vessels that are owned by any level of government and government entities like fire and police departments, are commercial vessels unless used only for pleasure.

A small commercial vessel is a vessel that is no larger than 15 gross tonnage and, if it is used to carry passengers, carries no more than 12 passengers.⁸

From a compliance standpoint, owners of small commercial vessels must follow all applicable Transport Canada boating regulations, including licensing regulations. In addition, fire departments must ensure that their commercial vessels have the correct registration and are operated only by qualified personnel who have completed the proper training.

Fire departments should also make sure that commercial vessels and other marine rescue equipment are replaced at the end of their life cycles (or earlier, as required). As such, a fire department should include its marine vessels and other rescue equipment in an approved asset management program. The asset management program should indicate the year that each vessel should be replaced.

⁸ <https://tc.canada.ca/en/marine-transportation/marine-safety/introduction-7>

Standard Operating Guidelines for Surface Water Rescues

Each fire department that delivers surface water rescue services should have an SOG that clarifies how to operate a rescue boat safely. (Appropriate training should also be provided.)

At a minimum, a marine rescue SOG should address the following considerations:

- What are the requirements and responsibilities of the boat's operator?
- What is the maximum number of staff and guests permitted on the boat?
- What are the standard practices for guests on the boat?
 - This component of the SOG should include instructions for identifying guests and ensuring that non-trained passengers know what to do if an emergency occurs on board the vessel (for liability purposes).
- How to use personal floatation devices correctly (including when to use seasonal life jackets or floater suits in cold weather conditions).
- How to follow safety plans that address staff needs.
 - This component of the SOG should also outline a plan for ensuring a second boat is available if the primary boat fails.
- How to respond to emergency calls on and off the water.
- How to use the boat to transport non-fire department passengers.
- How to respond to vessel fires.
 - This component of the SOG should include instructions for how to fight fires from the boat.
- How to deal with fuel spills on the water.
- How to transport and operate PPE on the boat during rescues.
- How to work with EMS crews, including clarification on the role of EMS crews and what is permitted and not permitted on the boat.
- How to work with other fire departments while on the boat.
- How to trailer the boat.

Determining Types of Service

Municipal councils should determine which water rescue services their communities require, as well as which of those services require the use of a boat.

Examples of water rescue services that require the use of a boat are as follows:

- transporting first responders to and from emergency scenes
- transporting patients to shore
- rescuing passengers from vessels (with rescue tools on board the boat)
- responding to fire-related calls (requiring flotation devices and firefighting PPE)
- conducting search and rescue or salvage operations
- managing fuel spills

After determining an appropriate level of service, a municipal council will need to secure adequate funding to support the applicable water rescue services. Depending on which level of service is chosen, councillors may need to ensure their municipality's budget can cover the costs involved with completing the following tasks:

- Provide training and equipment to perform tasks safely.
- Acquire PPE for all types of passengers, including small children.
- Acquire floating rescue baskets to ensure passenger safety.

All approved water rescue services should only be assigned to qualified personnel who have completed the required training. As of July 1, 2028, all firefighters performing surface rescues will need to become certified to the standard of NFPA 1006, chapter 17 (as per O. Reg. 343/22).

Findings

As of this FMP, the Department provides various specialty services, including ice water rescue services and boat operations.

The Department has established SOGs that outline clear operational procedures, safety protocols, and administrative practices related to surface water rescue services. In addition, the Department's personnel are trained in ice water rescue techniques, and they are certified as pleasure craft operators. The Department's personnel also complete additional marine safety training.

The Department is committed to achieving full certification for its ice water rescue services in order to comply with O. Reg. 343/22 by July 1, 2028. Planning is being completed to ensure compliance with this regulation by the stated deadline.

4.4.2 Municipal Fire Department Forest Fire Training

Context

In Ontario, firefighters must complete specific training if they are approved to respond to forest fires and wildland fires. These firefighters must also meet provincial certification standards. Often, these standards require the firefighters to complete training to the NFPA 1001 standard (Levels I & II).

The Ministry of Natural Resources (“**MNR**”) has also made it mandatory for firefighters to complete SP103 – Fire Department Wildland Fire Fighting. The SP103 course is designed to meet the training requirements of municipal fire departments that offer forest fire suppression services. These requirements are determined by the MNR, the OFM, and the Ontario Association of Fire Chiefs.

Findings

The Department’s current fire management agreement with the MNR is valid from April 1, 2023, to March 31, 2028.

As of this FMP, only 25 per cent of the Department’s firefighters have completed SP103 training

4.5 Other Fire Protection Bylaws

Context

In addition to an E&R bylaw, a municipal council may pass other fire protection bylaws, such as:

- open-air burning bylaws
- false alarm bylaws
- firework bylaws
- fire route bylaws

Some municipalities also have fire protection bylaws that outline their service agreements, such as their mutual aid and automatic aid agreements.

For more information about fire service agreements, see section 5 of this FMP.

Findings

As of this FMP, Stone Mills enforces Bylaw No. 2015-810. This bylaw was established to regulate the setting of fires.

4.6 Roadmap for Improvement

Establishing and Regulating Bylaw

The Department should take a proactive approach to governance by reviewing and updating the E&R bylaw on an annual basis. Doing so is a best practice that will help ensure continued compliance.

The review process should also be triggered whenever there are changes to the Department's approved level of service. Examples of these changes include adjustments to staffing levels, training standards, or equipment capabilities.

By implementing a proactive review cycle, the Department's leadership team can maintain alignment with provincial legislation. The reviews will also help the Department ensure that its services keep pace with evolving community needs while reinforcing transparency and accountability.

Multi-Storey Emergencies

Although Stone Mills contains a limited number of multi-storey facilities, and there are no buildings over three storeys high, it is for the Department to maintain readiness for complex incidents by prioritizing per-incident planning and establishing clear protocols for automatic aid assistance when required.

Common Passenger Vehicle Rescue

In order to strengthen operational capability in passenger vehicle rescue, the Department should implement a training program that is compliant with NFPA 1006. The training program should be structured to include operational protocols and standardized planning forms. The program should also include hazard identification procedures that are tailored to the common passenger vehicles located within the authority having jurisdiction.

Topics to include in the training program include vehicle anatomy, fire suppression techniques, and safety measures, which should be supported by incident support operations and resource planning (as applicable). The goal of the training program should be to help the Department certify at least two members from each of its fire stations to the technician level. This level of certification will ensure advanced expertise is available across the Department. Taking this approach will also help the Department enhance its readiness, improve its rescue efficiency, and remain aligned with recognized best practices for technical rescue operations.

Ice and Water Rescue

In order to ensure compliance with O. Reg. 343/22 and uphold a commitment to providing ice and water rescue services (as outlined in the E&R bylaw), the Department must implement a structured certification plan.

As a first step, the Department should conduct a gap analysis to identify whether its current training levels align with the requirements of NFPA 1006. Next, the Department should develop a training schedule that prioritizes core competencies, such as rescue techniques, hazard recognition, and operational safety. Other components of this schedule should include annual milestones, instructor assignments, and resource allocation for specialized equipment and facilities.

The Department should also ensure that all firefighters performing ice and water rescues are certified to the standard of NFPA 1006 by July 1, 2028 and certified as Pleasure Craft Operators. All certifications should also be supported by additional marine safety training.

Standard Operating Guidelines

The Department should review all of its current SOGs to identify which guidelines should be reclassified as formal policies.

The review process should begin by making an inventory of the existing SOGs, categorizing them by risk and legislative requirements. Other decision-making considerations include legal mandates, life safety implications, and accountability needs. Once the SOGs are categorized, all high-priority areas (such as joint health and safety governance, physical health and exposure control, and fireground safety protocols) should be converted into enforceable policies. Those policies will be supported by detailed SOGs that provide tactical guidance.

After the policies are approved and implemented, the Department should ensure that all of its personnel are aware of them by conducting training and using read-and-acknowledge tracking. The results of the training and tracking can be integrated into ongoing audits to maintain compliance and support continuous improvement.

The purpose of this initiative is to strengthen governance, reduce risk, and create a consistent, safe operating environment for all of the Department's personnel.

Municipal Fire Department Forest Fire Training

In order to meet the obligations outlined in the agreement with the MNR, which is in effect from April 1, 2023, to March 31, 2028, the Department must ensure that all of its firefighters complete SP103 – Fire Department Wildland Fire Fighting.

SP103 training is essential for ensuring operational readiness and maintaining compliance with provincial requirements. By completing the training, firefighters become equipped to respond to wildland fires and forest fires safely and effectively.

As of this FMP, 25 per cent of the Department's firefighters have completed SP103 training. Going forward, the Department should implement a plan to ensure that 60 per cent of its firefighters obtain the SP103 certification within the first year. In the second year, the Department should strive to reach a 90 per cent certification rate.

4.7 Recommendations

Recommendations regarding the bylaws and service levels in Stone Mills are as follows:

- 4-1. The Fire Chief should review the establishing and regulating bylaw for Stone Mills on an annual basis. The review should be used to confirm that the bylaw remains current with all emergency and non-emergency services provided by the Stone Mills Fire Department.
- 4-2. The Stone Mills Fire Department should conduct pre-incident planning for high-risk occupancies in the community.
- 4-3. The Stone Mills Fire Department should train two firefighters from each of its fire stations to the standard of NFPA 1006, Chapter 8: Common Passenger Vehicle Rescue. The firefighters should be trained to the technician level, and the certification should be obtained by July 2028.
- 4-4. In order to meet the Council-approved level of service for water and ice rescue, the Fire Chief should ensure that the Stone Mills Fire Department's training program aligns with the applicable NFPA 1006 standard. In addition, the Fire Chief should ensure that all personnel are trained to the appropriate levels.
- 4-5. The Stone Mills Fire Department should review all of its standard operating guidelines in order to identify which guidelines should become formalized policies.
- 4-6. The Stone Mills Fire Department should prioritize having its firefighters complete the SP103 Wildland Firefighter Program.

5.0 Fire Service Agreements

5.1 Overview

Under the authority of the Municipal Act and the FPPA, a municipality can enter into an agreement with another municipality to provide or receive a service.

The most common types of agreements are mutual aid plans, automatic aid agreements, and fire protection agreements.

5.2 Types of Fire Service Agreements

Context

Mutual Aid

A mutual aid plan allows a participating fire department to request assistance from a neighbouring fire department (as long as the other fire department is authorized to participate in a plan approved by the Fire Marshal).

Section 7 of the FPPA states that the Fire Marshal may appoint fire coordinators to “establish and maintain a mutual aid plan under which the fire departments that serve [a] designated area agree to assist each other in the event of an emergency.”

Automatic Aid

An automatic aid agreement allows the closest fire department to respond to an incident regardless of municipal boundaries. The purpose of the agreement is to reduce the time it takes for firefighters to arrive at the scene of a fire and begin suppression duties.

Fire Protection Agreements

A municipality may enter into a fire protection agreement if it does not have an existing fire department or does not have the means to establish one. A municipality may also participate in a fire protection agreement to have multiple departments operating a joint fire department.

A fire protection agreement can provide a municipality with access to resources such as additional staffing and specialized equipment. The agreements can also help a municipality obtain assistance with its public education and code enforcement initiatives.

Findings

Table 5 lists the fire service agreements that Council has approved for Stone Mills (as of this FMP).

Table 5. Current fire service agreements in Stone Mills.

Type of Agreement	Year Established	Participating Partner	Scope of Agreement
Driver Certification	2014	Minister of Transportation	The Minister of Transportation is the recognized signing authority to administer driver training and testing.
Automatic Aid	2017	Municipality of Tweed	Stone Mills and Tweed each agree to dispatch a unit from the closest available fire station automatically.
Fire Dispatch Services	2019	City of Kingston	Kingston's fire dispatch services receive emergency calls from Stone Mills, assess the situation, and coordinate the appropriate departmental resources.
Joint Response	2020	County of Lennox & Addington, Stone Mills, Greater Napanee, Loyalist, and Ontario Provincial Police	The parties to this agreement provide a standardized interagency protocol for a joint response.
Forest Fire Management	2023	Ministry of Natural Resources	Stone Mills is located in a fire region, and the Department is responsible for extinguishing fires in the region.
Memorandum of Understanding	2023	KFL&A Health Unit	This memorandum outlines the arrangements between KFL&A Health Unit and Stone Mills regarding the provision of naloxone kits.
Automatic Aid	2024	Town of Greater Napanee	Napanee and Stone Mills each agree to dispatch a unit from the closest available fire station automatically.
Automatic Aid	2025	Township of Loyalist	Loyalist and Stone Mills each agree to dispatch a unit from the closest available fire station automatically.

Going forward, Stone Mills should ensure that its fire service agreements are evaluated on a regular basis. The agreements should also be revised on a routine basis (as needed) in order to improve the delivery of fire protection services to the residents and businesses in Stone Mills.

5.3 Dispatch Services

Context

Fire departments have several options for their dispatch services. Common examples of dispatch services are explained in Table 6.

Table 6. Examples of dispatch services for fire departments.

Type of Dispatch Service	Scope
In-house dispatch centre	A fire department may operate an in-house dispatch centre. Although this option provides a fire department with direct control and fire-specific expertise, it can be costly.
Shared public safety answering point	Dispatch services can be handled through a shared public safety answering point. In this scenario, fire, police, and EMS crews share resources and infrastructure. Although this arrangement can improve coordination, it may not have a fire-specific focus.
Centralized regional or countywide dispatch system	Some fire departments use a centralized regional or countywide dispatch system. This option can enhance mutual aid coordination and standardization across multiple departments.
Private provider or a neighbouring municipality	Smaller fire departments might choose to contract their dispatch services to a private provider or a neighbouring municipality. This option may reduce internal burdens, but it could result in a loss of direct control.
Integrated 911 centre	An integrated 911 centre can manage all emergency services from a single point. This option can provide a streamlined response, but it requires significant investments and coordination.

Each type of dispatch service model has inherent trade-offs in terms of cost, control, and service specialization. As such, each fire department should assess its operational needs and resources in order to decide which dispatch option is the best choice for its community.

Regardless of the dispatch service model chosen, all fire departments should adhere to O. Reg 343/22, which outlines the qualifications and certifications required for emergency communicators.

Findings

As of this FMP, Stone Mills has an agreement with the City of Kingston to provide dispatch services for the Department.

5.4 Roadmap for Improvement

Types of Agreements

In order to ensure the fire service agreements in Stone Mills remain relevant and effective, the Fire Chief and the CAO should conduct a comprehensive review of all existing agreements (both formal and informal). The review should evaluate whether the current arrangements align with the community's evolving risks, needs, and circumstances.

Following the assessment, the agreements should be updated or renegotiated (as needed) to reflect best practices, operational requirements, and legislative compliance. Establishing a regular review cycle will promote accountability, strengthen partnerships, and ensure the Department is positioned to deliver efficient and reliable emergency services.

5.5 Recommendations

Recommendations regarding fire service agreements in Stone Mills are as follows:

- 5-1. The Fire Chief and the CAO should conduct comprehensive reviews of all existing agreements (both formal and informal) to ensure they remain relevant and effective.

6.0 Recruitment and Retention

6.1 Overview

Strong recruitment and retention levels are crucial to the success of a volunteer fire department. Without proper staffing numbers, a fire department cannot provide adequate services to its community. As such, it is critical for volunteer fire departments to have the necessary tools, information, and support to recruit and retain an appropriate number of firefighters.

Attendance levels are also important to consider. In the context of the fire service, attendance refers to the number of firefighters who respond to an emergency call.

As a best practice, volunteer fire departments should try to find ways to improve their recruitment, retention, and attendance levels. Often, there are significant costs involved with replacing trained and certified personnel, and the loss of these personnel can impact a fire department's performance levels due to the loss of experience.

6.2 Recruitment

Context

Many fire departments struggle to recruit a consistent number of volunteer firefighters. Although the factors affecting recruitment vary from region to region, there are some common themes that most fire departments face, such as:

- aging populations
- competing interests
- cultural shifts away from community service

Another difficulty is the amount of time it takes to identify, develop, and implement strategies to resolve recruitment challenges. Often, trying to resolve recruitment issues can cause a significant drain on a fire department's time and resources. In many cases, the issues that impact recruitment levels can also affect retention levels.

Findings

As of this FMP, the Department uses multiple channels to facilitate recruitment initiatives, such as:

- word of mouth
- social media
- posters

- billboards
- open house information days

Applications are submitted online, and candidates receive email communication outlining the next steps in the recruitment process.

The Department's annual recruitment cycle begins with job advertisements in September, followed by the hiring process, testing, and interviews in October. Successful candidates proceed to onboarding in November. The formal recruitment program runs from January to June.

Once testing is complete, recruit firefighters are brought on board (pending successful test results).

6.3 Retention

Context

Many volunteer fire departments find it challenging to retain qualified firefighters. It is not uncommon for a department to lose 10 to 20 per cent (or more) of its volunteer workforce each year, which means that a complete turnover of volunteer personnel is possible within five to ten years.

Due to poor retention rates, fire departments must spend a significant amount of time and money recruiting and training new volunteers. Because new volunteer firefighters often have limited experience and skills, volunteer fire departments are likely to have fewer qualified personnel who can fill leadership roles (such as officer positions) when they become available.

Table 7 lists some of the challenges associated with volunteer recruitment and retention. The table is a direct excerpt from the article "Where Are They Going?", written by Deputy Fire Chief Ian Shetler for the Association of Municipal Managers, Clerks, and Treasurers of Ontario.⁹

Table 7. Challenges associated with recruiting and retaining volunteer firefighters.

Source of Problem	Contributing Factors
Time Demands	• The two-income family and working multiple jobs • Increased training time demands • Higher emergency call volume • Additional demands within the department (administrative, fund-raising, etc.)

⁹ Shetler, "Where Are They Going?"

Source of Problem	Contributing Factors
Training Requirements	• Higher training standards and new government requirements • More time demands • Greater public expectation of capabilities (broader range of services) • Additional training to meet broader range of services • Recertification demands
Increasing Call Volume	• Fire department assuming wider response roles (EMS, hazmat, technical rescue) • Increasing emergency medical call volume • Increasing number of automatic alarms
Change in the “Nature of the Business”	• Abuse of emergency services by the public • Less of an emphasis on social aspects of volunteering
Changes in Sociological Conditions (In Urban and Suburban Areas)	• Transience • Loss of community feeling • Loss of community pride • Less of an interest or time for volunteering • Two-income families • “Me” generation
Changes in Sociological Conditions (In Rural Areas)	• Employers less willing to allow response to calls • Time demands • “Me” generation
Leadership Problems	• Poor leadership and lack of coordination • Authoritative management style • Failure to manage change

Findings

Table 8 compares the years of service among the Department’s personnel.

Table 8. Years of service in the Stone Mills Fire Department.

Years of Service	Firefighters	Captains and Lieutenants	District Chiefs	Fire Chief and Deputy Fire Chief
0 to 1.9	24	0	0	0
2 to 3.9	16	0	0	0
4 to 9.9	14	1	0	0
10 to 14.9	8	6	0	0
15 to 19.9	1	5	1	0
20 to 24.9	2	4	0	1
25 to 44.9	2	6	3	1
Total	67	22	4	2

6.4 Fire Station Common Areas

Context

A fire department's success is largely based on its ability to work as a team. As such, it is crucial to prioritize ways of building relationships and trust. In addition, many volunteer firefighters join the fire service due to a sense of community.

As a best practice, a fire station should have a common area where the station's firefighters can interact with each other. By incorporating a common area, a fire department can help its firefighters build connections, which may lead to higher levels of morale and increased retention rates.

A common room is also useful as a place to conduct informal discussions, training activities, and debriefing sessions. These events can allow firefighters to reflect on their performance and evaluate how to perform more effectively in the future. Firefighters can also use the common area to relax following stressful events, and this relaxation can serve as an informal way to manage mental health.

In addition, many fire stations have a kitchen space where firefighters can prepare meals together. When personnel eat together, they can improve team bonding and levels of trust. The experience can also help provide stress relief, a sense of belonging, and improved communication.¹⁰

¹⁰ Sinden, K. et al. "A Qualitative Study on the Experiences of Firefighters Serving in an Urban Fire Department in Canada."

Findings

As of this FMP, the four fire stations in Stone Mills have common areas that are well-maintained and adequate for the Department's needs.

The condition of the common areas is a positive reflection of the Department's commitment to upholding operational readiness and organizational pride.

6.5 Attendance Management

Context

Importance of Attendance

It is critical for fire service personnel to respond to emergencies, complete training sessions, and participate in equipment maintenance activities. Attending these events helps firefighters maintain their knowledge, skills, and operational readiness.

Fire chiefs and other leadership personnel must monitor attendance levels in their fire departments in order to ensure their department is staffed by firefighters who can meet the following criteria:

- Respond to incidents safely and effectively.
- Implement the skills acquired from completing training.
- Operate fire apparatus and equipment safely.
- Understand their role within the fire department.
- Educate community members at public education events.
- Ensure all fire apparatus and equipment are functioning properly.
- Remain aware of the fire department's goals and objectives.
- Conduct pre-incident planning and building familiarization activities.
- Contribute to a healthy organizational culture.

The importance of consistent attendance cannot be overstated. However, it is also important to acknowledge that it is difficult for firefighters to attend every event that involves their fire departments, as significant time commitments are required.

Maintaining consistent attendance is especially difficult for volunteer firefighters, as they must balance their fire service duties with their employment and personal commitments. Firefighters also need an appropriate amount of rest after completing an emergency response.

The pressure to maintain consistent attendance levels while meeting other obligations can lead to an unsustainable work-life balance. Therefore, fire departments that rely on volunteer personnel must ensure that they create opportunities that provide all staff members with the time needed to maintain a healthy work-life balance. From the firefighter's perspective, the schedule will provide time to fulfill other obligations. From the fire department's perspective, the schedule may help encourage good firefighter retention rates.

Table 9 identifies some of the risks associated with poor attendance levels. Many of the risks described in the table stem from poor training attendance, as low levels of training participation can lead to a range of operational issues.

Table 9. Risks associated with poor attendance levels.

Risk	Explanation
Increased risk of injury	Firefighting is inherently dangerous. If firefighters do not attend training sessions on a regular basis, they are at a higher risk of injury due to a lack of preparedness for the challenges they face during emergency responses.
Legal liability	A municipality could face legal repercussions if the Ministry of Labour finds that inadequate training—stemming from poor attendance—has compromised firefighter readiness. This situation could lead to charges against a municipality for failing to provide necessary training.
Investigations by the Fire Marshal	A pattern of poor attendance and the resulting lack of training can prompt the OFM to investigate a fire department's compliance with safety and training standards.
Compromised service delivery	Inadequate training due to poor attendance can lead to subpar service delivery, exposing a municipality to greater liability and damaging its credibility. This situation can erode public trust/confidence in the fire department's ability to protect the community.
Attrition among firefighters	Firefighters who perceive that there is an increased level of risk to their personal safety due to insufficient training may choose to leave their fire department. The departure of experienced personnel can further strain a fire department's capabilities.
Morale issues	The presence of safety-related concerns—exacerbated by poor attendance at training sessions—can significantly impact morale. For instance, firefighters may feel undervalued and unprotected, which can lead to a demotivated workforce.

Risk	Explanation
Reluctance to take necessary risks	When firefighters lack confidence in their training and safety measures, they may be hesitant or unwilling to take calculated risks that are often crucial for saving lives and property. This hesitancy can hinder a fire department's effectiveness during emergency responses.

Attendance Management Programs

Many fire departments implement an attendance management program to keep track of how many staff members are attending various functions and events on a regular basis. Ideally, the goal of the program is not to assign blame to staff members who do not have high levels of attendance. Rather, the program should be used to uncover issues that are affecting consistent attendance levels. A fire department can use the results of the program to help create a minimum attendance standard that is applicable to its number of available staff members, as well as its structure, services, and operations.

The results of an attendance management program may also provide an opportunity for a fire chief to speak candidly about the challenges that the fire department's personnel are facing. This opportunity can be used to reinforce the importance of regular attendance and its direct impact on public safety. A fire chief can also strive to find cost-effective ways of enhancing the fire department's operations to help firefighters overcome attendance-related challenges. For instance, a fire chief may take steps to increase the level of job satisfaction among personnel in order to increase attendance.

It is important to note that attendance levels can also be affected by call volumes. For example, it is common for fire departments to experience periods of low call volumes, as well as periods with an unusually high number of calls for service over a very short timeframe. Because instances of low and high call volumes are both possible, a fire department must use discretion when evaluating attendance levels during these periods. Without due discretion, a fire department may end up with an inaccurate impression of the readiness or availability of its staff members.

As a best practice, a fire department's management team should consider extending the length of time they use as "assessment periods" for their fire department's attendance management program. Doing so will help yield a more accurate picture of the availability and readiness levels of the fire department's personnel.

Findings

The Department has an attendance management program that is structured to ensure accountability and support. The Department also reviews its attendance levels periodically (in accordance with Stone Mills Fire Department Policy 1-01: Attendance and Training).

If a firefighter does not meet the required standards for either incident responses or training, specific departmental policies will be enforced.

Incident response attendance: Firefighters are required to attend at least 40 per cent of the calls that are received within each six-month period. If this benchmark is not met, the District Chief will first meet with the firefighter to review attendance and discuss any personal or work-related constraints. The District Chief will then consult with the Fire Chief or the Deputy Fire Chief regarding the firefighter's ability to meet future expectations. If the firefighter fails to meet the benchmark for two consecutive six-month periods, they may be required to meet with the Fire Chief or the Deputy Fire Chief (or both) to determine next steps.

Training attendance: Before the end of the training year, the District Chief will meet with any firefighter who has not completed their annual job performance requirements ("JPRs") in order to review the situation. After this discussion, the District Chief will consult with the Fire Chief or the Deputy Fire Chief (or both) regarding the firefighter's ability to complete the required JPRs. The District Chief and the Station Training Officer will then take reasonable steps to help the firefighter meet the outstanding JPRs. If the firefighter still fails to complete all JPRs, they will be suspended from their duties until the requirements are fulfilled.

6.6 Roadmap for Improvement

Recruitment

In order to continue attracting enough volunteer firefighter candidates, the Department should implement a structured recruitment plan. Developing a plan should begin with defining organizational goals, target demographics, and outreach methods.

The recruitment plan should incorporate community-focused strategies to build awareness, interest, and commitment. Potential initiatives include open houses, school visits, and participation in local events to increase visibility and trust.

Retention

As a strategic investment in firefighter retention, the Department should implement a uniform allowance program. By purchasing and maintaining professional uniforms, the Department will demonstrate that it supports its members and values their roles. This initiative can also help instill a sense of pride and belonging, allowing the firefighters to present a consistent, professional image that reflects the Department's standards and community expectations.

Providing a uniform allowance has the potential to enhance morale and strengthen long-term engagement. If the firefighters feel supported and recognized, they are more likely to remain with the Department, which will reduce turnover rates and help the Department preserve valuable experience.

Other components of the retention plan could include training opportunities, recognition programs, flexible schedules, and financial incentives.

Attendance Management

In order to maintain accountability and support, the Department should follow an attendance program that includes the clear communication of expectations, a structured monitoring system, and a progressive intervention process.

The attendance management program should establish attendance benchmarks that a firefighter must meet to remain a member of the Department. For instance, the program may require firefighters to respond to at least 40 per cent of the emergency calls received within each six-month period. The firefighters may also be required to complete annual JPRs.

Going forward, the Department should review its attendance levels regularly (in accordance with Policy 1-01), implementing early intervention efforts through supportive discussions to identify challenges as needed. If attendance benchmarks are repeatedly unmet, the Department's leadership personnel should escalate their approach to formal meetings.

Continuous improvement through policy reviews, the integration of suggestions, and the use of recognition programs for high attendance should help reinforce both engagement and operational effectiveness.

6.7 Recommendations

Recommendations regarding recruitment and retention in Stone Mills are as follows:

- 6-1. In order to attract new firefighters, the Stone Mills Fire Department should develop a community-focused recruitment strategy that includes methods for building awareness, interest, and commitment among community members.
- 6-2. Stone Mills should consider implementing a uniform allowance program to promote a consistent professional appearance for its firefighters, as well as strengthen the Stone Mills Fire Department's commitment to its members.
- 6-3. The Stone Mills Fire Department should develop a comprehensive retention plan that includes training opportunities, recognition programs, flexible schedules, and financial incentives.
- 6-4. The Stone Mills Fire Department should maintain and enforce its attendance management program. This initiative should involve regularly monitoring compliance with incident response and training benchmarks and providing supportive interventions when standards are not met..

7.0 Departmental Communications

7.1 Overview

Fire departments need to have good communication with their firefighters, external partners, and the public in order to operate effectively. The success of a fire department in recruiting and retaining staff—as well as its success in maintaining a good relationship with the community—can be significantly affected by how well it communicates and interacts socially.

Maintaining effective communication and staffing levels can be challenging for volunteer fire departments. For instance, it can be difficult for volunteer fire departments to keep their staffing levels consistent, especially during regular business hours. As such, these fire departments often need to look into different ways of operating and new strategies to solve staffing problems and enhance their operations.

Communication is also a reciprocal consideration. It is important for municipalities to make sure their firefighters are treated with respect and receive the benefits they deserve for their hard work and commitment.

7.2 Internal Communications

Context

A community consists of many groups, each with its own history, culture, and behaviours. Internal groups include municipal staff and local fire service personnel. Other groups include external agencies that share services with the fire department. It is important for fire departments to communicate openly with both internal and external groups. Doing so can help build trust and increase collaboration.

There are many proven ways to practise effective communication, such as:

- Distribute online surveys.
- Hold face-to-face meetings and discussion groups.
- Send regular emails, newsletters, and text messages.
- Revise and review SOGs with applicable personnel.
- Use social media platforms to relay updates.

Effective communication is especially important when a fire department wants to introduce changes to its services or structure. Without due consideration of social dynamics, the potential benefits of changes at the operational level may be offset by consequences at the social level.

If a fire department does not communicate its plans, some staff members and residents may be resistant to changes that will affect existing services or staffing models. However, when staff members and residents contribute to the planning process and understand the specifics of proposed decisions, they usually feel a sense of involvement.

Findings

As of this FMP, the Department typically communicates through emails and text messages. Many important messages are also communicated during training nights.

The district chiefs are responsible for communicating with the captains, and the captains are responsible for communicating with the firefighters who are assigned to them. Each captain may develop a different strategy to communicate with their assigned firefighters.

7.3 External Communications

Context

Often, communicating with members of the public is a critical part of the decision-making process. As a best practice, municipal councils and fire departments should avoid making significant operational changes until they understand which groups those changes will affect. It is also important to anticipate how the affected groups will react to any proposed changes.

Fire departments also communicate externally during emergency responses, during recruitment initiatives, and when delivering fire prevention and public education about fire safety.¹¹

Findings

As of this FMP, the Department's leadership personnel typically communicate to the public through face-to-face conversations, telephone conversations, emails, and the Department's website.

7.4 Business Relationships

Context

Many fire departments experience lower firefighter response numbers during regular business hours. Often, low response numbers are due to business owners not allowing employees who are also volunteer firefighters to respond to emergencies during business hours.

¹¹ For more information about fire prevention and public education, see section 9 of this FMP.

In some communities, there are business owners who hesitate to hire volunteer firefighters altogether. The perception is that business operations will suffer when volunteer firefighters abruptly leave the job site to respond to emergencies.

Some municipalities have taken steps to improve volunteer firefighter availability by publicly acknowledging businesses that hire volunteer firefighters and allow them to respond to emergencies during business hours.

Findings

As of this FMP, the Department does not have a formal procedure to acknowledge the local businesses that allow their employees who are volunteer firefighters to respond to emergencies during normal work hours.

7.5 Roadmap for Improvement

Internal Communication

The Department should streamline its communications by adopting an accessible digital platform, such as Microsoft SharePoint or internal dashboards. This platform can be used to store messages, documentation, operational updates, and training opportunities.

The Department should also install a message board at the entrance to its fire stations to provide real-time updates on personnel availability and response status. This information can be integrated with the Department's "Who's Responding" app to improve situational awareness and communications during emergency responses.

The Fire Chief can also send regular updates to share operational highlights, equipment changes, upcoming training, and recognition of member contributions. These updates could be delivered on a monthly or quarterly basis, and they should be made accessible to all personnel through a reliable communication platform (such as Microsoft Teams or an alternative digital solution) to ensure consistent delivery and transparency.

Additionally, officers and future leadership personnel should be provided with opportunities to develop their team-building skills and conflict-resolution skills, as this can help enhance trust and clarity across the Department.

Establishing clear communication protocols and communication channels will ensure transparency, engagement, and alignment with departmental priorities. The use of cost-effective tools and regular updates will also support camaraderie and a positive experience for all personnel.

External Communications

In order to enhance its external communications, the Department should ensure that all of its public messages are clear, concise, and consistent.

Leveraging multiple delivery formats (such as social media, community outreach initiatives, and the official website for Stone Mills) will help maximize the level of reach and engagement with residents.

7.6 Recommendations

Recommendations regarding departmental communications in Stone Mills are as follows:

- 7-1. The Fire Chief should host monthly or quarterly meetings to provide all members of the Stone Mills Fire Department with updates on operations, training, equipment, and departmental goals.
- 7-2. The Stone Mills Fire Department should investigate the use of a centralized digital platform (such as Microsoft SharePoint) to improve the way it shares information between its fire stations. A digital platform would enable secure access to documents, schedules, announcements, and training materials.
- 7-3. The Stone Mills Fire Department should install a message board at the entrance to its fire stations in order to provide real-time updates on personnel availability and response status. These messages can also be integrated with the fire department's "Who's Responding" app information as a way to improve situational awareness and communication during emergency responses.
- 7-4. The Fire Chief should identify and implement opportunities for current and future officers to enhance their team-building, conflict-resolution, and communication skills through targeted training and development initiatives.
- 7-5. The Stone Mills Fire Department should enhance its external communications by ensuring that all public messages are clear, concise, and consistent. The fire department should also leverage multiple delivery formats (such as social media, community outreach initiatives, and the official municipal website) in order to maximize its reach and level of engagement with residents.

8.0 Occupational Health and Safety

8.1 Overview

Fire departments must take occupational health and safety seriously. Firefighting is a challenging profession, and it is impossible to know what dangers a firefighter will face on any given day. Emergencies may escalate unexpectedly, involve harmful chemicals, or cause serious mental trauma to first responders.

Due to the dangers that firefighters encounter, fire departments should ensure that they implement health and safety practices that are proactive rather than reactive. For instance, firefighters often need to access their gear at a moment's notice, which is why fire departments should strive to always keep their equipment clean and ready for service.

From a compliance standpoint, there is specific health and safety legislation that all fire departments must follow, such as the OHSA. There are also many examples of industry best practices that fire departments can follow to safeguard their firefighters.

8.2 Firefighter Guidance Notes

Context

As a best practice, fire departments should adhere to the Firefighter Guidance Notes developed by the Ontario Fire Service Health and Safety Advisory Committee. The committee was formed under Section 21 of the OHSA, and it comprises stakeholders from across Ontario. The Firefighter Guidance Notes are reviewed and approved by the Minister of Labour.

According to the website for the Firefighter Guidance Notes:

[The] firefighter's guidance notes [are intended to] help fire service workers understand potential health and safety issues in their workplace. The notes also help employers identify hazards that are unique to fire services and determine how to prevent injury and illness to their workers.¹²

The Firefighter Guidance Notes also include information referred to as “actions for employers.” Municipalities and fire departments should pay particular attention to this section, as it contains information that can be used to verify that employers are exercising the proper due diligence.

The Firefighter Guidance Notes are not legally binding, but they are widely respected, and they are often used by inspectors and fire departments to guide safe practices.

¹² Ontario Association of Fire Chiefs, “Firefighter Guidance Notes.”

Findings

As of this FMP, some of the Department's firefighters are unfamiliar with the scope/purpose of the Firefighter Guidance Notes. However, the Department ensures its recruits are aware of this resource.

The current knowledge gap indicates a need for education on applicable health and safety directives.

8.3 Cancer Prevention Checklist

Context

Firefighters are exposed to toxic chemicals and carcinogens while responding to fires and hazardous situations. These exposures significantly increase the risk of developing various types of cancer, which is a leading cause of firefighter illness and death. By prioritizing cancer prevention through proper decontamination efforts, the use of protective equipment, and regular health screenings, fire departments can protect the long-term health and well-being of their firefighters. In addition to saving lives, these kinds of initiatives help support operational readiness, reduce healthcare costs, and demonstrate a commitment to the safety and longevity of the firefighting workforce.

Ontario's Firefighter Cancer Prevention Checklist is a self-audit tool designed to help fire departments identify and reduce cancer risks associated with firefighting. The checklist was developed by the Section 21 Committee (with support from the Ministry of Labour), and it addresses many key areas, such as:

- field decontamination
- handling/transporting contaminated equipment, in-station cleaning, and post-fire hygiene practices
- personal protective equipment ("**PPE**") usage
- gear maintenance
- administrative policies
- ensuring apparatus area ventilation is adequate for gear storage

The Firefighter Cancer Prevention Checklist also discusses the primary routes of exposure (such as inhalation and skin absorption), and it describes the steps that fire departments can take to minimize those risks. These actions cover topics like the proper use of respiratory protection, the cleaning of gear, and the implementation of hygiene protocols.¹³

¹³ Ministry of Labour, Training and Skills Development. "Firefighter's cancer prevention checklist."

Findings

As of this FMP, the Department is implementing a firefighter cancer prevention initiative that uses a standardized cancer checklist.

8.4 Personal Protective Equipment

Context

Firefighters use a variety of PPE to protect themselves from injury and death. This gear is referred to as a protective ensemble. A firefighter's protective ensemble includes the following types of PPE:

- firefighter pants and jackets
- helmets
- firefighting boots
- gloves
- flash hoods

Every piece of a protective ensemble is crucial to protecting a firefighter's health and safety.

Over the last few decades, health and safety agencies have conducted studies to find ways of reducing firefighter injuries and deaths. For example, WSIB Ontario has recognized that certain cancers are directly attributable to the toxic by-products of fires and hazardous materials, which can attach to the fabric of a firefighter's protective ensemble. As a result of the health and safety studies, the fire service has revised many of the regulations it has issued for protective ensembles. There are now several legislative requirements that fire departments must follow in order to ensure their firefighters have protective ensembles that meet compliance standards.

In addition, NFPA 1851, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*, recommends that fire departments retire ensemble elements "no more than 10 years from the date the ensembles or ensemble elements were manufactured." (Following this standard is recommended by Firefighter Guidance Note #4-8, "Care, maintenance, inspection and replacement of structural firefighting personal protective equipment.")

Remaining compliant with protective ensemble regulations and standards is vitally important, given how frequently firefighters use their gear. As part of their obligation to meet protective ensemble standards, fire departments must strive to implement robust cleaning measures that limit the chances of their firefighters and fire apparatus becoming exposed to contaminants. Doing so will also help fire departments maintain clean environments in their fire stations.

Ideally, all fire departments should ensure that each of their firefighters has a protective ensemble that is properly sized by a manufacturer representative. Although there is a cost to acquiring properly sized protective ensembles, it is a necessary cost, as it helps protect firefighter safety.

Findings

As of this FMP, the Department ensures that all of its firefighters are properly fitted with structural PPE, including bunker gear, boots, balaclavas, gloves, and helmets. The structural gear is replaced on a ten-year cycle to maintain compliance with safety standards.

For wildland firefighting, every firefighter is equipped with coveralls, gloves, and helmets. This approach supports both structural and wildland operational readiness while aligning with NFPA and departmental safety requirements.

8.5 Respirator Fit Testing

Context

Each firefighter must have a fit-tested mask when they wear a self-contained breathing apparatus (“**SCBA**”) during an emergency response. Every firefighter should also have a fit-tested N95 mask for protection against airborne contaminants.

CAN/CSA Z94.4-18, *Selection, Use, and Care of Respirators*, outlines specific fit-testing requirements that all fire departments should follow.

Findings

As of this FMP, the Department provides an SCBA facepiece for each of its firefighters. The Department also conducts its own fit testing program, which supports personnel from other departments as needed.

Currently, the firefighters undergo N95 fit testing, but the Department is exploring the use of adapters for SCBA facepieces as an alternative to N95 masks. This initiative ensures respiratory protection compliance and operational readiness while reducing reliance on disposable respirators.

8.6 Diesel Exhaust Systems

Context

Table 10 provides excerpts from Firefighter Guidance Note #3-1, “Controlling exposure to diesel exhaust.”

Table 10. Excerpts from Firefighter Guidance Note #3-1.

Topic	Excerpt from Firefighter Guidance Note #3-1
Background	Exhaust produced by diesel engines is a complex mixture of gases, vapours, and particulates. The gas portion of diesel exhaust is mostly carbon dioxide, carbon monoxide, nitric oxide, nitrogen dioxide and sulfur oxides. Vapours include hydrocarbons, such as Polycyclic Aromatic Hydrocarbons. The particulate portion of diesel exhaust is made up of particles such as carbon, organic materials [...] and traces of metallic compounds.
Concerns/hazards	The International Agency for Research on Cancer, part of the World Health Organization, has classified diesel engine exhaust as carcinogenic to humans. It found that diesel exhaust is a cause of lung cancer and noted a positive association with an increased risk of bladder cancer.
Actions for employers	Employers must: • make sure the fire station is adequately ventilated by either natural or mechanical means so that the atmosphere does not endanger the health and safety of workers • take all measures reasonably necessary in the circumstances to protect workers from exposure to diesel exhaust components, including: ○ substitution of the hazardous biological or chemical agent ○ engineering controls ○ administrative controls, including work practices ○ hygiene facilities and practices ○ where applicable, personal protective equipment

In order to reduce diesel exhaust exposure, the Firefighter Guidance Notes recommend using a series of control measures related to the following topics:

- ventilation
- buildings
- trucks
- equipment
- written operating procedures

- choice of fuel
- air monitoring
- maintenance
- housekeeping
- firefighter education

Findings

As of this FMP, the Department does not have a formal program to control diesel exhaust exposure within its fire stations. The lack of a program is a significant concern because bunker gear is stored on the apparatus floors at the Yarker, Enterprise, and Tamworth stations. This scenario increases the risk of contamination. (At the Newburgh station, bunker gear is stored outside the apparatus bay, which reduces the risk of contamination.)

Although Station 2 – Enterprise is equipped with an exhaust fan and CO monitoring devices, the systems do not meet the required standards for effectively removing hazardous vehicle fumes.

8.7 Joint Health and Safety Committee

Context

Each fire department should have a joint health and safety committee (“**JHSC**”) that includes representation from its senior management team and its firefighters. Ideally, a JHSC should perform monthly health and safety inspections and meet at quarterly intervals to discuss applicable concerns.

In some municipalities, the local fire department and municipal staff share a single health and safety committee.

Findings

A JHSC questionnaire was completed during the FMP development process. The results of this questionnaire are shown in Table 11.

Table 11. Joint health and safety committee questionnaire.

Question	Answer
Does the Department participate in a JHSC?	Yes
Does the JHSC have terms of reference?	No

Question	Answer
Does the JHSC consist of both fire service personnel and municipal staff members?	No
Is the JHSC compliant with all applicable regulations and bylaws?	Yes
Is the JHSC conducting monthly inspections?	Yes
Is the JHSC holding quarterly meetings?	Yes
Does the JHSC post its health and safety minutes on a bulletin board?	Yes
Is the JHSC bulletin board up to date?	Yes
Is the JHSC documenting its actions?	Yes
Has the JHSC formalized a complaint process?	Yes

Based on the data provided in the JHSC questionnaire, the JHSC in Stone Mills is compliant with applicable legislation. However, the JHSC does not have any terms of reference. Having this information is considered a best practice for an effective health and safety committee.

8.8 Health and Wellness

Context

It is crucial for employers to support the well-being of their employees in order to maintain a healthy workplace environment. Fire departments can support their firefighters through health and wellness programs that address topics such as:

- cancer prevention
- nutrition and physical activity
- critical incident management
- post-traumatic stress disorder

There are several standards that provide guidance about health and wellness for fire departments, such as NFPA 1550, *Standard for Emergency Responder Health and Safety*.

The following three sections of NFPA 1550 are particularly important:

- Chapter 13 addresses the topics of health, fitness, and infection control.

- Chapter 14 states that fire departments must provide their members and their immediate families with access to a behavioural health program.
- Chapter 15 provides guidance regarding occupational exposure to potentially traumatic events.

There are also standards that address mental health in the workplace, such as CAN/CSA-Z1003-13/BNQ 9700-803/2013: *Psychological Health and Safety in the Workplace*.

CAN/CSA-Z1003 identifies 13 organizational factors that affect psychological health at work:

- organizational culture
- psychological and social support
- clear leadership and expectations
- civility and respect
- psychological demands
- growth and development
- recognition and rewards
- involvement and influence
- workload management
- engagement
- balance
- psychological protection
- protection of physical safety

Fire departments can use the available health and wellness guidelines to develop programs to support all personnel in their organizations.

Findings

The following subsections describe specific aspects of health and wellness, discussing the ways in which they relate to Stone Mills and the Department.

8.8.1 Mental Health

Context

Typically, mental health support programs involve several components, such as:

- onboarding training
- regular mental health training
- critical incident stress defusing and debriefing support
- peer support

It is also common for a mental health program to be split into subcategories, such as pre-incident education, peer support, and critical incident stress management (“**CISM**”).

Pre-incident education involves providing firefighters with information about managing their mental health. Because of the nature of their work, firefighters are exposed to more tragic events than the average individual.

Peer support is the emotional and practical support exchanged between two people who have undergone a shared experience, such as a mental health challenge or illness. A peer supporter is an individual who has lived through a distressing event and is trained to support others who have undergone similar experiences.

A critical incident is any situation that can cause a firefighter to experience strong emotional reactions that have the potential to interfere with their ability to function. A CISM team is responsible for recognizing the signs of exposure to critical incident stress and taking steps to help affected personnel recover.

Findings

As of this FMP, Stone Mills supports mental health awareness through its employee and family assistance program. In addition, the Department has established a peer support team. This seven-person team offers confidential, compassionate, and non-judgmental assistance to firefighters and staff members facing personal or work-related challenges. The team helps guide people toward appropriate resources in order to promote overall mental health and well-being.

8.8.2 Physical Health

Context

Physical fitness programs can teach firefighters ways to reduce injuries at work and improve their overall quality of life.

Engaging in physical exercise can also help firefighters maintain good mental health.

Findings

As of this FMP, Station 1 – Yarker and Station 4 – Tamworth are both equipped with workout facilities to support firefighter physical fitness.

The Department promotes wellness by participating in the annual FireFit competition. Approximately 25 per cent of the Department's members competed in the 2025 event.

The Department also offers all its firefighters the opportunity to complete a voluntary fitness assessment. This fitness assessment is a requirement for new members. Firefighters who successfully complete the assessment receive a recognition pin, and the Department celebrates the fittest fire station each year.

8.9 Fireground Safety

8.9.1 Incident Command

Context

Fireground safety is a critical component of a fire department's operations. In order to maintain fireground safety, a structured approach to minimizing risks during emergency responses must be in place.

There are several key components that help ensure fireground safety. Some of these components are as follows:

- A clearly established incident command system ("**ICS**") ensures that all personnel operate under a unified command, enabling coordinated decision-making and accountability.
- Effective radio communications are essential for maintaining situational awareness, relaying assignments, and transmitting urgent information.
- Fire crews must have the training and the ability to declare a mayday, which is a distress call indicating a firefighter is lost, trapped, or injured. In addition, the process for declaring a mayday situation must be universally understood, and procedures must be in place to ensure a rapid rescue.
- The presence of an incident safety officer ("**ISO**") can enhance safety by monitoring conditions, identifying hazards, and advising command personnel about proper risk management throughout the incident.

When the proper components are in place, it helps ensure that fire crews can operate in a safe and organized fireground environment.

Findings

As of this FMP, only a few of the Department's firefighters have completed IMS training.

8.9.2 Pre-Incident Planning

Context

When firefighters respond to an emergency in a building with an unfamiliar layout, the risk to their safety increases significantly. The risk increases even more in large commercial, industrial, and institutional buildings. Firefighters are also at risk when they respond to an emergency in a building where visibility is limited.

By completing the pre-incident planning process, firefighters can familiarize themselves with site layouts and prepare themselves for the risks inherent to a building's construction, such as the likelihood of collapse. The fire department can then use that information when developing its response protocols in order to enhance the safety of building occupants and fire crews during emergencies.

Fire departments should make it a priority to complete the pre-incident planning process for all buildings that are at high risk, have vulnerable occupants, or have high value to the community. It is also important to revisit those buildings on a regular basis to reassess the results of any previous pre-incident planning. Doing so can help ensure that all data is kept current with any changes to a building's uses, layouts, and on-site materials.

Employers also have responsibilities as part of the pre-incident planning process. According to Firefighter Guidance Note #6-45, "Pre-incident planning," employers should take the following actions:

- Develop a pre-incident planning program that compiles building information.
- Keep building data updated with information gained during fire prevention activities or from other allied agencies.
- Provide known building information to responding firefighters, including building configurations and functions.
- Coordinate building tours for firefighters.
- Train firefighters to conduct pre-incident planning for the employer's specific occupancy.

By working together, local businesses and fire departments can help protect the safety of firefighters and community members.

Findings

As of this FMP, most of the major occupancies in Stone Mills have a pre-incident plan. The Department can access the plans on iPads that are kept in each of the front-run pumpers. The plans are also available through the Who's Responding app.

8.9.3 Incident Safety Officer

Context

An ISO plays a critical role during responses to fires and large or complex incidents by completing the following tasks:

- Monitor conditions.
- Identify hazards.
- Ensure that safety protocols are followed.
- Address immediate safety concerns.
- Help prevent injuries.
- Improve accountability.

Having an ISO to complete specific tasks allows the Incident Commander to focus on an overall response strategy. The dedicated oversight provided by the ISO can also enhance the responding fire crew's situational awareness, level of coordination, and overall effectiveness.

In a volunteer fire department, where personnel may have varying levels of professional experience, a dedicated ISO can reinforce a culture of safety. The ISO can take a proactive approach to protecting the firefighters while also helping the fire department improve its overall operational effectiveness by aligning its operations with best practices and provincial safety standards.

Overall, establishing an ISO and an associated ISO program can enhance on-scene safety and reduce the risk of injuries or fatalities.

Firefighter Guidance Note #2-4, "Incident safety officer," provides information about the role of an ISO.

Findings

As of this FMP, the Department does not have any designated ISOs.

8.9.4 Reflective Chevrons for Fire Apparatus

Context

Reflective chevrons on fire trucks are crucial for enhancing a vehicle's visibility and safety. Installing reflective chevrons is particularly important due to Ontario's diverse weather and lighting conditions.

According to NFPA 1901, at least 50 per cent of the rear-facing vertical surfaces of a fire apparatus should be equipped with retroreflective striping in a chevron pattern. These chevrons consist of alternating red and yellow stripes, each 6 inches wide, sloping downward at a 45-degree angle from the centreline of the vehicle. This design significantly improves the visibility of emergency vehicles, reducing the risk of collisions, especially during nighttime operations or in adverse weather conditions.¹⁴

Currently, there is no provincial law that mandates adherence to NFPA 1901, but many Ontario fire departments choose to follow the standard. Implementing the NFPA 1901 standard demonstrates a commitment to firefighter safety and public awareness, and it is aligned with best practices observed across North America.

Findings

As of this FMP, all of the Department's fire apparatus have reflective chevrons.

8.10 Roadmap for Improvement

Firefighter Guidance Notes

The Department should continue to incorporate the Firefighter Guidance Notes into its training programs. For example, the Department can try aligning its training objectives with the content of the Firefighter Guidance Notes, distributing them during sessions. Doing so will help the Department enhance operational safety, standardize best practices, and ensure compliance with provincial health and safety regulations.

Referencing the Firefighter Guidance Notes is also a practical and effective way to enhance firefighter knowledge, consistency, and operational readiness.

Cancer Prevention Checklist

The Department should continue incorporating the Cancer Prevention Checklist into its health and safety protocols in order to protect its firefighters from occupational cancer risks.

For example, the Department should continue integrating checklist items into daily routines. These topics include awareness training and the reinforcement of best practices for decontamination, PPE handling, and post-incident hygiene.

Personal Protective Equipment

The Department currently provides its personnel with PPE that is both properly fitted and replaced according to a ten-year replacement cycle.

¹⁴ National Fire Protection Association. *NFPA 1900, Standard for Aircraft Rescue and Firefighting Vehicles, Automotive Fire Apparatus, Wildland Fire Apparatus, and Automotive Ambulances.*

Both of these practices support firefighter safety and compliance with industry standards. However, the absence of a second set of gear for each firefighter makes it challenging to maintain protection after contamination occurs during an emergency response.

Going forward, the Department should invest in a second set of bunker gear for each firefighter. Doing so can help ensure that the Department's firefighters have access to clean, serviceable equipment when their primary gear is out for inspections, cleaning, or repair.

Diesel Exhaust Systems

The Department currently lacks a formalized program to control exposure to diesel exhaust at its fire stations, thereby increasing the risk of contamination. Although Station 2 – Enterprise is equipped with an exhaust fan and CO monitoring devices, these systems do not meet the required standards for effectively removing hazardous vehicle fumes, especially in environments where bunker gear is stored on the apparatus floor.

Going forward, the Fire Chief should formalize a program to reduce exposure to diesel exhaust. The Fire Chief should also explore ways to ensure that all apparatus emissions are ventilated to the exteriors of the fire stations. As a best practice, all programs and protocols related to diesel exhaust exposure should adhere to Firefighter Guidance Note #3-1, as well as the Cancer Prevention Checklist.

Joint Health and Safety Committee

The JHSC should develop clear terms of reference to define its mandate, roles, and responsibilities. Having terms of reference will help ensure transparency, accountability, and consistency in the JHSC's operations and decision-making processes.

Incident Command

In order to ensure that its officers are fully prepared to lead during emergencies, the Department should adopt a structured approach to incident command development. As a start, the Department should establish clear policies that define incident command as a core leadership competency and then align applicable training with NFPA 1021 and ICS Canada standards.

The Department should then strive to reinforce learning through scenario-based exercises, tabletop drills, and real-world mentorship opportunities where officers rotate into acting IC roles during incidents. Implementing formal evaluations and post-incident reviews will also assist with measuring competency and identifying areas for improvement.

Finally, the Department should aim to maintain proficiency by conducting annual refresher training and integrating technological tools to enhance decision-making.

Incident Safety Officer

In order to strengthen operational safety and compliance, the Department should implement a structured ISO program. An ISO plays a critical role in protecting firefighter safety during emergency responses. The primary duties of an ISO include monitoring conditions, identifying hazards, and advising the Incident Commander on risk mitigation.

For a four-station fire department, the best practice is to train at least one ISO per station to guarantee coverage. An ideal approach is to train all of the current officers in order to provide flexibility and redundancy. This initiative would require individuals to complete training to the standard of NFPA 1521.¹⁵

8.11 Recommendations

Recommendations regarding occupational health and safety in Stone Mills are as follows:

- 8-1. The Stone Mills Fire Department should incorporate recommendations from the Firefighter Guidance Notes into its training programs in order to enhance operational safety, standardize best practices, and ensure compliance with provincial health and safety regulations.
- 8-2. In order to reduce occupational cancer risks among firefighters, the Stone Mills Fire Department should integrate the Cancer Prevention Checklist into its health and safety protocols. The checklist should also be reviewed on a regular basis to ensure compliance and best practices.
- 8-3. The Stone Mills Fire Department should invest in additional sets of bunker gear to ensure that its firefighters have access to clean, serviceable equipment when their primary gear is out for inspections, cleaning, or repair.
- 8-4. The Fire Chief should formalize a program to reduce exposure to diesel exhaust. The Fire Chief should also explore ways to ensure that all apparatus emissions at the fire stations are ventilated to the exterior of the buildings. All programs and protocols related to diesel exhaust exposure should adhere to Firefighter Guidance Note #3-1 and the Cancer Prevention Checklist.
- 8-5. The Joint Health and Safety Committee should adopt formalized terms of reference to ensure clarity, accountability, and compliance with best practices.

¹⁵ NFPA 1521 is included in the consolidated standard NFPA 1550, *Standard for Emergency Responder Health and Safety*.

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- 8-6. The Fire Chief should hold regular officer meetings in order to strengthen leadership communication, operational consistency, and incident command proficiency within the Stone Mills Fire Department.
 - 8-7. The Stone Mills Fire Department should establish a formalized Incident Safety Officer training program to enhance firefighter safety and adhere to NFPA 1521 standards.

9.0 Fire Prevention and Public Education

9.1 Overview

Fires are extremely dangerous incidents that can lead to fatalities and severe property damage. According to the OFM, there were 53,339 structure fires in Ontario between 2017 and 2021. Those incidents caused 473 deaths, 3,598 civilian injuries, and nearly \$4.5 billion in property loss.¹⁶

Due to the negative outcomes that result from fires, fire departments have traditionally viewed fire suppression as their primary focus. However, many fire departments now recognize the importance of developing proactive fire prevention initiatives to increase community safety. Statistics show that most fires—as well as injuries, deaths, and costs resulting from fires—are preventable. For instance, structure fires often occur due to a lack of fire safety knowledge or a disregard for fire safety regulations. Although improved building codes contribute to fire safety, both public awareness and proper emergency responses are essential for occupant survival.

The OFM endorses the use of a fire safety model known as the three lines of defence, which was first introduced by the Honourable John B. Webber in the Report of the Public Inquiry into Fire Safety in Highrise Buildings (published in 1983). The three lines of defence are:

1. Public Education
2. Code Enforcement
3. Fire Suppression

The goal of the three lines of defence is to encourage fire departments to use fire prevention initiatives to reduce the need for fire suppression. Although fire suppression must remain a critical focus for fire departments, it is important for fire departments to take steps to reduce the need for this kind of response.

Despite the OFM's emphasis on prevention, many municipalities underfund public education and code enforcement initiatives, often reallocating resources to suppression efforts. However, choosing to fund proactive fire prevention initiatives is the more cost-effective option.

A strong prevention plan, led by a dedicated fire prevention officer, can significantly reduce fire-related harm and enhance community safety. Moreover, the FPPA requires every municipality to implement a fire prevention program.

¹⁶ OFM, 2022.

Effective fire prevention programs should use public education initiatives to bring safety issues to the forefront. Once established, the programs will require continued monitoring and revision to ensure they keep pace with the community's current and anticipated fire protection needs.

By prioritizing public education and code enforcement initiatives, a municipality is more likely to protect lives and property. The municipality can also benefit from cost savings over the long term.

9.2 Community Demographics

Context

When a fire department understands its community's demographics, that department can tailor its services to meet the specific needs of the population it serves. Examples of relevant community demographics are as follows:

- age distribution
- population density
- language diversity

Emergency responses, public education campaigns, and fire prevention programs can all be based on an understanding of community demographics.

Consider the following examples:

- If a municipality's population has a large percentage of senior citizens, that community may require an increased level of medical response readiness.
- If a municipality has a large percentage of residents who speak a diverse number of languages, that community would benefit from having multilingual safety materials to reduce potential language barriers.
- Lower-income neighbourhoods are often at an increased fire risk due to older housing stock and a lack of smoke alarms. Factors like these may prompt the need for free alarm installation programs.

Aligning resources and strategies to respond to community demographics can help a fire department bolster safety and build stronger community trust.

Findings

Permanent Residents

According to the 2021 Statistics Canada census, Stone Mills has a population of 7,826 year-round residents. This number is 1.6 per cent higher than the number of residents recorded in the 2016 census.

Tourism

Historically, the transient population in Stone Mills increases during the summer and winter months. The township is a popular destination for cottagers and tourists due to its natural environment and opportunities for outdoor recreation. For example, Stone Mills contains several lakes and waterways (including Beaver Lake, White Lake, and Varty Lake) that are popular with boaters and anglers. There is also a trail system that supports hiking, cycling, cross-country skiing, snowshoeing, and snowmobiling.

A high level of tourism in Stone Mills can increase the amount of vehicular traffic in the area, which has the potential to increase the number of motor vehicle collisions in the community.

Age Distribution

Table 12 compares the age distribution in Stone Mills to the Province of Ontario (based on the findings of the 2021 Statistics Canada census).

Table 12. Age distribution in Stone Mills and the Province of Ontario.

Age Range	Stone Mills	Ontario
0 to 14 years	15.9%	15.8%
15 to 64 years	64.3%	65.6%
65 years and over	19.8%	18.5%
85 years and over	1.3%	2.4%

Based on the 2021 census data:

- The average age in Stone Mills is 43.6 (compared to the provincial average of 41.8).
- The median age in Stone Mills is 46.8 (compared to the provincial average of 41.6).

Language

According to the 2021 Statistics Canada census, Stone Mills is a predominantly English-speaking community. Overall, 95.5 per cent of the residents in Stone Mills identify English as their first language, while 1.2 per cent of the population identified French as their first language.

Level of Education

Table 13 compares the highest level of education obtained by residents of Stone Mills aged 15 years and over to the provincial average (based on the findings of the 2021 Statistics Canada census).

Table 13. Education levels in Stone Mills and the Province of Ontario.

Education Level	Stone Mills	Ontario
No certificate	15.1%	15.3%
High school diploma or equivalency	29.7%	27.2%
Post-secondary certificate, diploma, or degree	55.3%	57.5%

9.3 Public Education Initiatives

Context

Public education initiatives raise a community's awareness about the importance of fire safety. For example, public education can be used to help residents understand codes and regulations. Other initiatives can teach residents how to install and maintain smoke alarms, carbon monoxide detectors, and related fire safety technology. By delivering proactive public education initiatives, fire departments can help people of all ages understand ways to reduce the number of fires in their community.

Common ways of providing public education are as follows:

- Complete door-to-door campaigns.
- Deliver public service announcements.
- Participate in community events.

Many fire departments also deliver public education virtually through various online platforms. For instance, social media channels provide fire departments with a practical way of relaying information to a wide audience in real-time, especially if a large-scale incident is pending or has just occurred.

It is also common for fire departments to provide public fire safety education through lectures, videos, and pamphlets. Although these are helpful tools, they are not enough to reduce fire risk. It is critical that fire departments train members of the public to prevent, respond to, and react to fires safely. Proactive training can greatly reduce the number of fires within a community, as well as the damage caused by fires that occur.

Findings

As of this FMP, the Department's firefighters provide fire prevention education programs within the community in accordance with the priorities identified by the Alarmed for Life program. This initiative is a community smoke alarm program.

Various special interest groups and social and service groups may also request fire safety presentations, demonstrations, and fire station tours. Specific programs may also be needed for clubs, cubs, guides, and babysitters.

The Department has also been providing information to Stone Mills residents about the what3words geocode system. This system provides unique three-word codes for each three-by-three-metre square area in the community. The Department can use this system to locate individuals in need of rescue, even in areas without street addresses. The Department has been using this system for approximately five to six years.

9.3.1 Signage

Context

Many fire departments install signage at the front of their fire stations to display public education messages.

Signs can be used to communicate information about a variety of topics, such as:

- burning restrictions
- basic fire safety practices
- fire department social media accounts
- upcoming public events
- applicable public safety concerns

Findings

The Department uses exterior signage at its fire stations to promote fire safety awareness within the community.

The Department also has forest fire hazard index signs to ensure awareness of wildfire conditions throughout the community.

9.3.2 Smoke Alarm/Carbon Monoxide Alarm Program

Context

As of this FMP, Ontario does not have a policy that mandates inspections for residential smoke alarms and carbon monoxide alarms. However, as a rule, all residences are required to have working alarms on every floor level and outside sleeping areas. Testing and maintaining the alarms is the responsibility of homeowners and landlords (in the case of rental units).

Although there is no mandated policy for smoke alarms and carbon monoxide alarms, it is highly advisable for fire departments to implement an applicable program. Doing so is a proactive way to ensure the best possible outcome for local residents in the event that a fire or carbon monoxide emergency occurs.

All smoke alarm/carbon monoxide alarm programs should include the following components:

- Each time firefighters interact with local residents (such as during emergency responses), they should verify that the residents have working alarms.
- Fire departments should proactively check residential smoke/carbon monoxide alarms.
- Fire departments should have a method for tracking and keeping statistics regarding the number of working and non-working smoke alarms in the community.

Fire departments can accomplish most requirements of a smoke alarm/carbon monoxide alarm program by conducting home inspections and home fire escape reviews for community residents, including the residents of seasonal dwellings and trailer parks.

Findings

The Department facilitates the Alarmed for Life smoke/CO program. The Alarmed for Life program is a fire safety initiative in Ontario that focuses on ensuring homes have smoke and carbon monoxide alarms that are properly installed and functioning (as required by the OFC). As part of this initiative, Lennox and Addington County has provided Stone Mills with a mapping application. The Department can use this application to keep track of which residences have been inspected and meet applicable legislation.

When the Department responds to an emergency call at a residential dwelling, the firefighters check to ensure the home's smoke and carbon monoxide alarms are compliant with the OFC. The Department's enforcement strategies focus on working collaboratively with homeowners to achieve compliance with the OFC.

Stone Mills' fire prevention policy emphasizes that every reasonable effort will be made to encourage homeowners, landlords, and tenants to comply voluntarily with the requirements of the OFC.

9.4 Code Enforcement and Fire Inspections

Context

In Ontario, fire code enforcement inspections are conducted under the authority of the FPPA and the OFC. The inspections are carried out by municipal fire departments to ensure that buildings comply with established fire safety standards.

Inspectors have the authority to enter a building without a warrant at reasonable times in order to assess fire safety conditions. If violations are identified, inspectors can issue orders requiring property owners or occupants to take necessary measures to rectify the issues. Those actions may involve removing fire hazards, making structural repairs, or implementing fire safety plans.

Findings

The following subsections discuss the code enforcement initiatives and fire inspections in Stone Mills.

9.4.1 Request and Complaint Inspections

Context

As per O. Reg. 365/13, fire departments must conduct inspections upon request and upon receiving a complaint.

A fire department will conduct a request inspection (or a sale request inspection) when it receives a notification related to new occupancies, licensing, property sales, or fire code compliance.

A complaint inspection is conducted when a fire department receives notice of a fire code violation.

Fire departments must also complete follow-up actions for all inspections. The most common follow-up action is the issuance of a letter.

O. Reg. 365/13 states:

If a Chief Fire Official receives a request made by or on behalf of an owner of a building for approval of anything that the fire code requires to be approved or permits to be approved, the Chief Fire Official shall assess the request and determine whether it would be advisable to conduct a fire safety inspection in the building or a part of the building in order to decide whether to grant or refuse the approval.

If an inspection is required, O. Reg. 365/13 states, “The Chief Fire Official shall ensure that the fire safety inspection conducted under this section is conducted in accordance with the directives, if any, issued by the Fire Marshal.”

Findings

As of this FMP, the Department conducts inspections upon request and when it receives a complaint.

9.4.2 Vulnerable Occupancy Inspections

Context

A vulnerable occupancy is a building or an organization that functions as a retirement home, a care facility, or a care and treatment facility.

As per O. Reg. 364/13, “Mandatory Inspection – Fire Drill in Vulnerable Occupancy,” fire departments must inspect vulnerable occupancies and verify that all vulnerable occupancies in their community have conducted the required fire drills.

According to O. Reg. 364/13:

3. (1) If the person ensuring that an inspector observes the fire drill [at a care occupancy, care and treatment occupancy, or retirement home] is not the Fire Marshal, the person shall file the following information with the Fire Marshal in the form and manner and within the time period directed by the Fire Marshal:
 1. The operating name of the care occupancy, care and treatment occupancy or retirement home.
 2. The street address of the care occupancy, care and treatment occupancy or retirement home.
 3. The classification of the care occupancy, care and treatment occupancy or retirement home as a care occupancy, care and treatment occupancy or retirement home.
 4. The date the fire drill was observed.
 5. The date the fire safety inspection was conducted.
- (2) If the person ensuring that an inspector observes the fire drill [...] is the Fire Marshal, he or she shall keep a record of the information described in subsection (1).

Findings

As of this FMP, Stone Mills does not contain any vulnerable occupancies.

9.4.3 Fire Inspection Statistics

Context

There are several reasons why fire departments must track their inspections:

- Tracking inspections is a requirement of the FPPA.
- The information may help a fire department develop strategic plans to address operational needs (such as staffing levels).
- The information may identify occupancies where additional inspections are required.
- The information can help a fire department develop a fire prevention campaign that focuses on areas in the community that have a number of complaints and violations.
- Tracking inspections creates a paper trail, which can help protect building owners, as well as a municipality and its fire department, from potential liability issues.

Above all, tracking inspections can help a fire department identify ways to improve the safety of community residents, businesses, and visitors.

There are several types of OFC violations that a fire department may identify when conducting an inspection. Depending on the nature of the violation, the applicable authority having jurisdiction (“**AHJ**”) may issue one of the following notices:

- **Verbal:** The inspector notes an issue verbally. The issue is corrected immediately, and the officer acknowledges the correction.
- **Letter of compliance:** The inspector sends a formal letter to the building owner. The letter states that the inspection is complete, as well as whether the occupancy is compliant.
- **Order:** According to section 5.21.(1) of the FPPA, an inspector “may order the owner or occupant of the land or premises to take any measure necessary to ensure fire safety on the land.”
- **Notice of violation:** The inspector notes violations in a letter to the building owner. This letter includes the date by which the owner must resolve the noted issues.
- **Charges:** If a building owner does not comply with an order, they may be charged under the FPPA.

Findings

Table 14 shows the number of inspections the Department completed from 2021 to 2025. The information is categorized by occupancy type.

Table 14. Number of inspections per occupancy type, 2021 to 2025.

Type of Occupancy	2021	2022	2023	2024	2025	Total
Group A (assembly)	0	0	0	1	0	1
Group B (care and treatment)	0	3	0	0	0	3
Group C (residential)	2	4	7	9	4	26
Group D & E (mercantile/commercial)	0	0	0	0	0	0
Group F (industrial)	0	0	0	0	0	0
Other/non occupancy	0	1	1	1	0	3
Total	2	8	8	11	4	33

Table 15 categorizes the reasons for inspections conducted by the Department from 2021 to 2025. The table also indicates the number of violations that were identified during that period.

Table 15. Inspection reasons, 2021 to 2025.

Type of Inspection	2021	2022	2023	2024	2025	Total
Complaint inspections	0	4	5	4	2	15
Owner request inspections	0	1	0	1	0	2
Sale request inspections	0	0	0	1	0	1
Routine inspections	0	1	0	0	0	1
Licensing inspections	2	2	3	5	2	14
Other inspections	0	0	0	0	0	0
Total	2	8	8	11	4	33

9.4.4 Frequency of Fire Inspections

Context

As discussed in section 9.1 of this FMP, the three lines of defence model recommends using fire prevention activities in order to reduce the need for fire suppression services.

Proactive fire inspections are a crucial component of all fire prevention programs. When a fire department inspects the different occupancies in the community on a frequent basis, it is likely to remain aware of factors that have the potential to cause a fire or other emergency. Those factors can include changes to a building's use, layout, or on-site materials.

Findings

According to Bylaw No. 2022-1152, the Department provides fire prevention and public education services as per the approved fire prevention policy for Stone Mills.

Stone Mills established its fire prevention policy in 2015. The policy outlines the following information:

- record-keeping requirements, which include updating Stone Mills' risk assessment every three years (modifying related programs as needed)
- public education program requirements
- inspection and code enforcement requirements
- compliance strategies for smoke alarms and carbon monoxide alarms
- open-air burning bylaw
- inspection requirements for all new constructions
- fireplaces and solid fuel-burning appliances and equipment requirements
- fire investigation requirements
- service fee requirements

The fire prevention policy also outlines the Department's fire prevention inspection schedule. This schedule is shown in Table 16.

Table 16. Fire prevention inspection schedule

Type of Occupancy	Inspection Frequency
Assembly (Group A)	
School	Annually
Recreation centre	Annually
Licensed premise	Annually
Daycare/nursery	Annually
Municipally owned building	Annually

Type of Occupancy	Inspection Frequency
Church	Upon request
Special occasion permits	Upon request
Institutional (Group B)	
Care facility	Annually
Care and treatment facility	Annually
Retirement home	Annually
Group home	Annually
Residential (Group C)	
Apartment	Annually
Home inspection	Upon request
Commercial/Business (Groups D & E)	
Mercantile	Upon request
Business/personal service	Upon request
Industrial (Group F)	
Factory or complex	Upon request

Upon review, the Department is completing a low number of building inspections. As a result, some occupancies in Stone Mills may have fire and life safety risks that are going untreated.

9.5 Residential Sprinkler Systems in New Residential Buildings

Context

Installing a sprinkler system in a residential building can reduce the risk of severe property damage and loss of life. The sprinkler systems can help suppress fires, keeping them small and reducing their ability to spread. If a residential sprinkler system can control a fire in this way, building occupants may have more time to evacuate their homes.

The NFPA has conducted a study that examined residential sprinkler systems.¹⁷ Some of the facts uncovered by the study are as follows:

- Sprinklers were effective at controlling a fire in 98 per cent of cases in which they were used.
- Sprinklers save lives and reduce injuries and property loss.
 - When sprinklers were present, the civilian fire death rates were 90 per cent lower.
 - When sprinklers were present, the injury rates per fire were 32 per cent lower.
- Sprinklers have proven to work reliably in reported structure fires considered large enough to activate them.

Recent data collected by the NFPA also confirms that various enhancements in sprinkler system designs have improved their performance and reliability.

Sprinkler systems can be supported by a home's well or through standalone tanks and pump systems that activate automatically during a fire.

Findings

As of this FMP, Stone Mills does not mandate the installation of sprinkler systems in new residential buildings.

9.6 Fire Investigations

Context

According to the FPPA, a fire department must investigate all fires that occur within its jurisdiction. In order to gain the skills needed to conduct accurate investigations, firefighters should complete advanced training to the standards of NFPA 1033.

After a fire occurs, a fire department conducts a preliminary investigation to identify the cause, origin, and circumstances of the fire. If the cause is accidental, information from the inquiry reinforces the need to increase fire prevention and public education initiatives.

However, if the cause of a fire is suspicious, further investigations and actions are required. For instance, fire departments must notify the OFM and the local police about all suspicious fires.

¹⁷ McGree, "U.S. Experience with Sprinklers."

The FPPA also states that assistants to the Fire Marshal must notify the OFM of all incidents that meet—or that appear to meet—any of the following criteria:

- The investigating firefighters suspect the fire or explosion is incendiary (criminal). Incendiary fires may include dumpster fires, car fires, and wildland fires. All incendiary fires/explosions must be reported to the applicable police authority.
- A fire or explosion results in either a fatality or serious injury that requires a person to be hospitalized as an inpatient. In such instances, the fire department must make every reasonable effort to confirm the status of injured persons transported to the nearest hospital before releasing the fire scene.
- A fire or explosion results in significant loss for the community.¹⁸
- An explosion is the primary event.
- A fire results in an unusual spread of fire or smoke.
- A fire or explosion involves circumstances that may result in widespread public concern (such as an environmental hazard).
- A fire or explosion involves clandestine drug operations or marijuana growing operations.
- A fire or explosion occurs in a multi-unit residential occupancy, and the impact of the fire's spread or the explosion extends beyond the unit of origin.
- A fire or explosion occurred in a multi-unit residential occupancy, and the fire department suspects that OFC violations have impacted the event.
- A fire or explosion occurs in a vulnerable occupancy.

Under the FPPA, a fire department must follow all regulated steps when conducting a fire investigation. This obligation includes notifying and working with OFM investigators (as required).

Findings

As of this FMP, the Department has four personnel with NFPA 1033 certification. It has been determined that Stone Mills needs a policy to designate these individuals to conduct investigations.

Currently, the Deputy Fire Chief is the only individual who is identified in a municipal policy as responsible for conducting fire investigations.

¹⁸ A significant loss refers to a dollar loss of one million dollars or more or a loss that is twice the amount of the average sale price of a residential occupancy in the community.

9.7 Roadmap for Improvement

Smoke Alarm/Carbon Monoxide Alarm Program

The Department should strengthen its smoke and carbon monoxide alarm program by using an approach that is structured and sustainable.

As noted in section 9.4.4, Stone Mills has an established fire prevention policy. However, the objectives, responsibilities, and compliance obligations stated in the policy are not being fully met. Recommended actions are as follows:

- A formal follow-up process should be established to ensure that issues identified during inspections are addressed promptly and effectively.
- All data about public education—including inspection and installation data—must be entered into a records management system (“**RMS**”) in order to track compliance, provide accountability, and support accurate reporting. The information can also be referenced when it is time to design future public education initiatives.
 - For instance, the Department should keep track of the types of programs it delivers, including the target audience for each program.
- The door-to-door Alarmed for Life program should be scheduled and completed annually as intended, and it should include documented results and performance metrics.
- Staff training on proper alarm installation, documentation, and public education should be integrated into the Department’s training program to ensure consistency and quality.

By implementing the initiatives listed above, the Department can enhance program effectiveness, improve community safety, and ensure compliance with legislative and municipal requirements.

Frequency of Fire Inspections

In order to ensure a fire-safe community, the Department should implement a fire inspection program that is based on proactive initiatives instead of just reactive compliance. As noted above, the current fire prevention policy outlines inspection objectives, frequency, and responsibilities, but those items are not being followed.

Stone Mills’ 2023 CRA includes a risk-based summary of high-risk occupancies in the community, including multi-unit residential buildings and commercial properties. The Department should use this information to help develop a fire inspection schedule that will meet the community’s risks, needs, and circumstances.

The Department also needs to establish a way to use its RMS to track inspection dates, findings, and corrective actions. This information is needed for accountability and reporting purposes.

Currently, the Deputy Fire Chief oversees all duties related to fire prevention. This responsibility includes ensuring compliance with applicable regulations and standards. However, this approach does not support the implementation of a proactive fire prevention program.

Going forward, Stone Mills should realign the responsibilities of the Fire Chief and the Deputy Fire Chief to ensure each position has adequate capacity for implementing the risk-based inspection schedules outlined in the fire prevention policy. This adjustment will allow the Department's leadership personnel to focus on strategic oversight while enabling the Department to deliver a proactive and compliant fire prevention program.

In terms of timelines and planning, over the next five to ten years, the Department should plan for the potential need to add staff members to support its expanded fire prevention initiatives. The additional personnel will be able to conduct fire inspections and help deliver applicable programs, such as public education and home fire safety initiatives.

Fire Investigations

The Department should focus on training its personnel to meet the NFPA 1033 standard. Doing so will help ensure the Department has multiple qualified individuals who are approved and available to conduct fire investigations.

The certification process will need to involve identifying suitable candidates, providing access to accredited courses, and establishing a structured training schedule. Additionally, the Department should allocate resources for ongoing professional development, certification maintenance, and practical experience opportunities. By implementing this process, Stone Mills can build a sustainable team of trained investigators, which will improve service capacity and resilience.

9.8 Recommendations

Recommendations regarding fire prevention and public education in Stone Mills are as follows:

- 9-1. The Fire Chief should ensure that the Stone Mills Fire Department begins tracking more data about its public education programs in its records management system. The information should include the types of programs being delivered and the age of program participants. The fire department should refer to this information when it designs future public education initiatives.

- 9-2. Over the next five to ten years, the Stone Mills Fire Department should plan a way to address the potential need to add more staff members to support expanded fire prevention initiatives. These additional staff members would help deliver public education, fire inspection, and home fire safety programs.
 - 9-3. The Stone Mills Fire Department should implement a structured fire investigation program to ensure that it has multiple qualified/approved investigators.
- .

10.0 Training and Certifications

10.1 Overview

According to O. Reg. 297/13, subsections 4 (1) and (2):

- Employers must keep a record of the training their employees and supervisors receive.
- Employers must keep a record of any worker or supervisor who is exempt from completing specific training.
- Employers must update employee training records each time an employee completes a training program. Doing so provides evidence that the employer took steps to prevent hazards, accidents, discrimination, and harassment in the workplace.

In addition to the items listed above, there are specific training requirements that fire departments must observe. For instance, in order to perform response duties safely, firefighters must receive training that teaches them the skills they need to carry out their assigned tasks. The training must also help the firefighters develop an aptitude for recognizing the appropriate actions to take during an emergency response.

Fire departments must also offer basic training to comply with legislation. According to the OHSA, all employers must “provide information, instruction and supervision to a worker to protect the health or safety of the worker.” As such, fire departments should complete ongoing training to ensure that their operations remain safe and effective. Ongoing training also helps firefighters remain current with applicable certification requirements while keeping their knowledge and skill levels up to date—a well-trained firefighter is a firefighter who is properly equipped to make decisions that will mitigate risks and save lives.

10.2 Training Challenges for Volunteer Fire Departments

Context

Volunteer fire departments often face several training-related challenges, such as:

- a lack of time to complete mandatory and ongoing training
- a lack of certified instructors
- no dedicated training facility
- scheduling issues
- excessive travel demands

Of all the potential training challenges, time commitments are perhaps the most difficult issue for volunteer firefighters to overcome. Volunteer firefighters must balance their work and personal commitments with their fire service duties.

The difficulty is that most fire service training requires significant time to complete, and it is possible that some volunteer firefighters will need to take time away from their families or jobs for several weeks or more. Such a scenario can create an unsustainable work-life balance, especially as firefighter certification standards become more demanding.

Another challenge is that some volunteer fire departments have limited personnel or resources, which makes it difficult to run an effective ongoing training program. However, fire departments must still find ways to deliver a training program that meets legislative requirements. All fire departments must adhere to the same training and certification regulations, regardless of their size.

Findings

The Department's training is overseen by a dedicated training committee that includes two representatives from each station. The training committee is working on maintaining a structured six-month training schedule.

The training committee is responsible for the following tasks:

- Develop lesson plans and training content.
- Organize and schedule training sessions.
- Coordinate instructors and training resources.
- Maintain the overall training program.

The training committee has faced some challenges due to the amount of time required to complete the tasks listed above.

The Department's training schedule is as follows:

- Firefighter training is conducted on the first two Mondays of every month. These sessions are two hours long.
- Equipment checks and equipment training are conducted on the third Monday of every month.

In total, the Department's staff currently commits approximately 48 hours per year to maintaining their competencies and completing skill training. However, this amount of training time is not sufficient to ensure firefighters can safely and effectively maintain perishable skills, regulatory compliance, and operational readiness.

The Deputy Chief ensures that the Department's training is compliant with NFPA standards. Doing so ensures operational readiness and regulatory compliance.

10.3 Training Structure

Context

A well-organized training program is beneficial for many reasons, such as:

- A strong training structure ensures that firefighters are consistently prepared to respond to a wide range of emergencies safely and effectively.
- The program supports the development of core competencies.
- The program reinforces operational procedures.
- The program keeps personnel up to date with evolving techniques, equipment, and regulations.
- A strong training framework supports teamwork, decision-making under pressure, and physical readiness.
- Regular, structured training reduces the risk of injury, improves response times, and ultimately enhances public safety.

In addition to the benefits listed above, a well-structured training program can help a fire department ensure compliance with provincial and national standards, which can reinforce the department's credibility and professionalism.

Findings

The Department faces several issues as it aims to maintain a consistent and effective training program, such as:

- A significant amount of time is required to organize and schedule training sessions and develop lesson plans.
- A significant amount of time is required to secure the NFPA certification courses that firefighters must complete to remain current with evolving NFPA standards.
- It is difficult to ensure that all firefighters are trained to the same level. If some firefighters are unavailable for training, the Department may have an inconsistent level of competency.

The issues listed above create challenges for the training committee and affect the Department's ability to deliver a standardized, high-quality training program across all stations.

10.4 Recruit Training

Context

All firefighters complete approximately 400 hours of recruit training when they begin working in the fire service. Due to the costs and time commitments involved in providing recruit training, some fire departments send their new firefighters to third-party trainers or establish agreements with other fire departments to share training duties.

In Ontario, the OFM trains and certifies firefighters to NFPA standards, which are the benchmarks for firefighting training in North America. The training is facilitated by the OFM Academic Standards and Evaluation unit. This group is responsible for conducting written tests, practical evaluations, and other methods of assessment for certification courses.

The OFM Academic Standards and Evaluation unit can also issue International Fire Service Accreditation Congress seals and National Board on Fire Service Professional Qualifications applications (as appropriate).

Findings

The Department has a recruit training program that runs from January to June each year. This program provides recruits with the information they need to become certified to NFPA 1001, Level I, and NFPA 1001, Level II. In addition, the Department delivers awareness- and operations-level NFPA 1072 training (on hazardous materials) to its recruits from September to October.

The Department delivers weekly recruit training sessions that last from three to eight hours. The training includes a mix of theoretical classroom-based learning, practical hands-on training sessions, and online modules offered through ResourceOne. All training is provided by in-house instructors, and it is overseen by the Deputy Chief. This arrangement ensures quality control and alignment with the Department's standards.

10.5 Ongoing Training

Context

It is crucial for volunteer firefighters to receive ongoing training. Some of the benefits of ongoing training are as follows:

- The training reinforces core competencies and introduces new techniques.
- The training increases familiarity with fire service equipment.
- The training helps ensure compliance with safety standards and legislation.
- The training promotes teamwork, builds muscle memory for critical tasks, and helps firefighters stay mentally and physically prepared.

Overall, a well-structured training program will help ensure firefighters remain skilled, confident, and ready to respond to a wide range of emergencies. Ongoing training is especially important for small or rural fire departments that may not receive a high volume of emergency calls. The training will help the personnel in these departments maintain their operational readiness even when there are fewer emergency responses to complete.

Findings

As of this FMP, the Department is conducting a variety of ongoing training initiatives.

The Department provides its firefighters with the following additional training:

- survival training
- safety training on chainsaw operation and maintenance
- training required to maintain Superior Tanker Shuttle Accreditation.¹⁹
 - The training and recertification process for Superior Tanker Shuttle Accreditation is completed every five years.

The Department is also in the process of investigating strategies for responding to incidents involving electric vehicles and determining how these procedures will integrate into existing operational response plans. If these procedures are adopted, additional training will be required.

10.6 Officer Development Program

Context

According to the OHSA, employers should ensure that each worker they appoint to a supervisory role has the prerequisites to qualify as a competent supervisor.

The following excerpt from the Province of Ontario's website paraphrases the OHSA's definition of a competent supervisor:

The OHSA gives employers and workers duties that help support the role of the supervisor. When appointing a supervisor, the employer must ensure the person is competent. To be competent, a supervisor must have enough knowledge, training, and experience to organize the work and how it is to be performed. He or she must also be familiar with the OHSA and any regulations under it that apply to the workplace and know about any actual or potential health and safety hazards in the workplace.²⁰

¹⁹ For more information about Superior Tanker Shuttle Accreditation, see section 14.4 of this FMP.

²⁰ Ontario.ca, "Supervisors under the Occupational Health and Safety Act."

The legislation about competent supervisors applies to various employment sectors, including the fire service. In addition, personnel who serve in supervisory roles must meet certain occupational health and safety requirements.

In order to ensure personnel are competent prior to their appointment as supervisors, many fire departments establish an officer development program. This type of program can cover essential topics that personnel should learn to prepare themselves for potential leadership roles in the future.

Examples of key training topics are as follows:

- incident command
- fireground tactics
- leadership skills
- communication skills
- knowledge of applicable legislation and departmental policies

An officer development program should also include mentorship opportunities, scenario-based exercises, and processes to evaluate decision-making and team management abilities.

By combining formal education with practical experience, officer development programs can equip future leaders with the knowledge and skills to guide their crews safely and effectively during both emergency responses and administrative tasks.

Another best practice is having leadership personnel attend seminars and conferences. Attending these events can provide many benefits, such as:

- the chance to stay current with evolving fire service practices, technologies, and legislation
- the chance to network with other leadership personnel, share experiences, and gain insights into innovative solutions and emerging challenges within the field
- the chance to support professional development and collaboration across departments
- the chance to equip fire chiefs with the knowledge and tools needed to lead effectively and make informed decisions for their communities

Findings

As of this FMP, the Department does not have an official officer development program.

10.7 NFPA and Other Certifications

Context

O. Reg. 343/22: Firefighter Certification came into effect on July 1, 2022. The regulation falls under the authority of the FPPA, and it establishes the mandatory minimum certification standards for specific fire protection services.

As per O. Reg. 343/22:

- All firefighters must have the minimum level of certification for all services they perform. This stipulation is to ensure that firefighters receive consistent, ongoing training that matches the level of service set by their municipal council. The stipulation is also in place to help protect firefighter safety.
- Municipal councils must set the types of service and the levels of service that their fire departments will provide. Once decided, the council must arrange for its fire department to receive the appropriate level of training (based on applicable NFPA standards) for those services.
- Firefighters must meet the NFPA standards that are applicable to their roles, and they must have the ability to perform the services associated with their roles. For example, a fire prevention officer must have certification at the level of inspections they provide, and captains must have certification at the level of supervision they conduct.
- A fire department must ensure that all of its personnel meet the level of training required under O. Reg. 343/22 by the compliance deadline.
 - NFPA 1006 certifications have a compliance deadline of July 1, 2028.
 - All other certifications have a compliance deadline of July 1, 2026.

In addition to the items listed above, fire departments must ensure that all applicable personnel are certified to the following standards prior to the certification deadline:

- NFPA 1001 identifies the minimum job performance requirements for career and volunteer firefighters whose duties are primarily structural in nature. (NFPA 1001 is consolidated in NFPA 1010, *Standard on Professional Qualifications for Firefighters*.)
- NFPA 1002 identifies the requirements that firefighters must meet before driving to emergency sites, as well as requirements for the regular maintenance and repair of fire apparatus. (NFPA 1002 is consolidated in NFPA 1010, *Standard on Professional Qualifications for Firefighters*.)

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- NFPA 1072 identifies the minimum job performance requirements for firefighters operating at the scene of a hazardous materials incident or weapons of mass destruction incident. (NFPA 1072 is consolidated in NFPA 470, *Hazardous Materials/Weapons of Mass Destruction (WMD) Standard for Responders*.)
 - NFPA 1006, *Standard for Technical Rescue Personnel Professional Qualifications*, identifies the minimum job performance requirements for firefighters delivering specialized rescue services.
 - NFPA 1033, *Standard for Professional Qualifications for Fire Investigators*, specifies the job performance requirements that fire investigators must meet.
 - NFPA 1031 specifies the job requirements, knowledge levels, and skill levels that fire inspectors must meet. (NFPA 1031 is consolidated in NFPA 1030, *Standard for Professional Qualifications for Fire Prevention Program Positions*.)
 - NFPA 1035 specifies the standard that contains guidelines for fire and life safety educators. (NFPA 1035 is consolidated in NFPA 1030, *Standard for Professional Qualifications for Fire Prevention Program Positions*.)
 - NFPA 1021 identifies the minimum job performance requirements that fire officers should meet. (NFPA 1021 is consolidated in NFPA 1020, *Standard for Fire and Emergency Services Instructor, Fire Officer, and Emergency Medical Services Officer Professional Qualifications*.) As of July 1, 2026, the following level of certification becomes mandatory for the listed positions:
 - NFPA 1021, Fire Officer I: The fire officer at the supervisory level.
 - NFPA 1021, Fire Officer II: The fire officer at the supervisory/managerial level.
 - NFPA 1021, Fire Officer III: The fire officer at the managerial/administrative level.
 - NFPA 1021, Fire Officer IV: The fire officer at the administrative level.
 - NFPA 1041 identifies the job requirements that fire service instructors who participate in training should meet. (NFPA 1041 is consolidated in NFPA 1020, *Standard for Fire and Emergency Services Instructor, Fire Officer, and Emergency Medical Services Officer Professional Qualifications*.)
 - NFPA 1521 identifies the job requirements that health and safety officers and incident safety officers should meet. (NFPA 1521 is consolidated in NFPA 1550, *Standard for Emergency Responder Health and Safety*.)
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Until recently, a provincial program allowed firefighters to meet their certification requirements without completing the necessary NFPA training. Firefighters could attempt to have their training grandfathered. This process allowed fire departments to submit lists indicating which personnel should qualify as NFPA-certified based on their years of experience and ongoing training. The Ontario government gave two opportunities to complete the grandfathering process. The final deadline was December 31, 2018. Fire departments must retain the appropriate documentation to prove their firefighters had their training grandfathered. Fire departments must also retain appropriate training records as proof that they meet applicable requirements.

Fire departments must retain the appropriate documentation to prove their firefighters had their training grandfathered. Fire departments must also retain appropriate training records as proof that they meet applicable requirements.

In addition, fire departments may require their staff to become certified to non-NFPA standards or hold licenses needed to perform specific services.

Findings

The following tables summarize the Department's training and certification levels as of this FMP:

- Table 17 summarizes training and certification levels for the Department's core services.
- Table 18 summarizes training and certification levels of the Department's intermediate services.
- Table 19 summarizes training and certification levels of the Department's advanced services.

Some services listed in Table 18 and Table 19 are not currently offered by the Department. If Council chooses to approve those services, the Department will be required to provide appropriate training.

Each table shows the following information for each certification:

- the number of personnel who should complete each course and become certified.²¹
- the number of personnel who have completed each course or who are currently enrolled, waiting to write the certification exam, or waiting to receive exam results

²¹ As per O. Reg. 343/22, all NFPA certifications listed in the table will be mandatory for personnel who complete the duties covered by the applicable standard as of July 1, 2026 (unless otherwise noted).

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- the number of personnel who have had their training status grandfathered or are otherwise exempt
 - the percentage of eligible personnel who are certified, in the process of becoming certified, or have had their training status grandfathered for the certification

Table 17. Core certification and operational disciplines in Stone Mills.

Standard	Applicable Personnel	Certified Personnel	Legacy	Percentage Completed or Pending
NFPA 1001: Fire Fighter I	100	27	45	72%
NFPA 1001: Fire Fighter II	100	30	41	71%
NFPA 1002: Fire Apparatus Driver/Operator	75	2	0	3%
NFPA 1035: Fire and Life Safety Educator I	8	5	3	100%
NFPA 1072: Hazardous Materials Response (operations level)	100	30	0	30%
NFPA 1021: Fire Officer I	30	6	24	100%
NFPA 1041: Fire Services Instructor I	31	15	16	100%
NFPA 1031: Fire Inspector I	5	3	2	100%
NFPA 1033: Fire Investigator	4	3	0	75%
NFPA 1006: Surface Water Rescue (operations level)	25	0	20	80%
NFPA 1006: Ice Water Rescue (operations level)	25	0	20	80%
NFPA 1006: Common Passenger Vehicle Rescue (operations level)	75	0	0	0%
SP103: Fire Department Wildland Fire Fighting	100	25	0	25%
DZ licence	75	46	0	61%

Table 18. Intermediate certification levels in Stone Mills.

NFPA Standard	Applicable Personnel	IFSAC or Proboard Certified	Legacy	Percentage Completed or Pending
NFPA 1041: Fire Services Instructor II	7	2	5	100%
NFPA 1521: Incident Safety Officer	4	2	0	50%
NFPA 1021: Fire Officer II	10	3	7	100%
NFPA 1021: Fire Officer III & IV	2	1	0	50%
NFPA 1031: Fire Inspector II	1	1	0	100%
NFPA 1006: Swift Water Rescue (operations level)	0	0	0	N/A

Table 19. Advanced certification levels in Stone Mills.

NFPA Standard	Applicable Personnel	IFSAC or Proboard Certified	Legacy	Percentage Completed or Pending
NFPA 1006: Rope Rescue	0	0	0	N/A
NFPA 1006: Machinery Rescue (technician level)	0	0	0	N/A
NFPA 1006: Structural Collapse	0	0	0	N/A
NFPA 1006: Confined Space Rescue	0	0	0	N/A
NFPA 1006: Wilderness Search and Rescue	50	0	0	0%
NFPA 1006: Trench Rescue	0	0	0	N/A

10.8 Other Training and Development

Context

In addition to foundational training related to NFPA standards and rescue requirements, firefighters may also complete training related to the following topics:

- emergency medical response
- defibrillation
- driving and apparatus operations
- mental health
- incident command systems
- wildland firefighting

Fire service personnel can complete their training by conducting hands-on drills, scenario-based exercises, and online learning modules. The purpose of the training is to help firefighters maintain their skills and stay up to date with the latest protocols and equipment.

Findings

As of this FMP, the Department provides comprehensive medical training as part of its first responder responsibilities. This includes First Aid, CPR, and Basic Life Support training, as well as specialized training to recognize opioid overdoses and safely administer intranasal naloxone. The Department's training structure includes members certified in CPR and Basic Life Support, with the remaining personnel trained to the Health Care Provider level, ensuring advanced proficiency in emergency medical care.

10.8.1 Provincial and Municipal Training

Context

In addition to recruit training and in-service training, all firefighters must complete applicable provincial and municipal training.

The Province of Ontario requires fire departments to provide their employees with training on the following topics:

- Workplace Hazardous Materials Information System ("**WHMIS**")
- AODA requirements
- workplace harassment
- other training (as required)

Findings

Stone Mills provides the Department's firefighters with access to all required provincial and municipal training through online platforms.

10.8.2 Driver Training and Licensing

Context

It is critically important for fire departments to understand the current certification and regulatory requirements associated with driver training and licensing. An individual should only operate a large vehicle (such as a fire apparatus) after completing specialized training and obtaining either a DZ or AZ licence. If a fire department allows an unqualified or untrained firefighter to operate a fire apparatus, it puts the safety of the driver and others at risk.

Relevant excerpts from different legislation related to driver training and licensing are as follows:

- Section 25 (2)(a) of the OHSA states that an employer must “provide information, instruction and supervision to a worker to protect the health or safety of the worker.”
- Section 25 (2)(h) of the OHSA states that an employer must “take every precaution reasonable in the circumstances for the protection of a worker.”
- Firefighter Guidance Note 6-7, “Driving skills for emergency apparatus response,” recommends having firefighters complete theoretical and practical training if their role involves operating a fire apparatus.

Findings

As of this FMP, the Department has a designated driver certification program. However, the Department is in the process of conducting a program audit and awaiting the Ministry of Transportation's approval to continue the program.

As noted in section 10.7, the Department does not have enough firefighters with valid DZ licenses. Only 61 per cent of the Department's eligible firefighters hold the proper licence. In addition, only 3 per cent of the Department's eligible firefighters are certified to the NFPA 1002 standard. As of July 1, 2026, this certification will be required for all personnel who operate a fire apparatus.

Without an adequate number of appropriately licensed drivers, the Department will face challenges related to response capability, staffing flexibility, and overall operational efficiency.

10.8.3 Post-Incident Analysis and Review

Context

Fire departments may conduct a post-incident analysis and review (“**PIAR**”) following an emergency response. In some cases, an after-action review will also be conducted. Each of these reviews is a type of structured evaluation that is used to assess the actions that were taken during an incident. The purpose of these evaluations is to identify successes and areas for improvement. This information can then be used to enhance the effectiveness of future emergency responses.

The results of a PIAR can be used to support many operational goals and initiatives, such as:

- Reinforce training
- Improve response strategies
- Update standard operating procedures
- Enhance firefighter safety by uncovering any procedural lapses or equipment failures that may place personnel at risk.

By analyzing the outcomes of previous incidents, a fire department can reduce the likelihood of future mistakes, improve coordination, and ensure that its firefighters are better prepared and protected to respond to future emergencies.

According to the NFPA, a structured post-incident review process is essential for maintaining continuous improvement, accountability, and safety. Moreover, the Ministry of Labour emphasizes the importance of implementing an incident command system that is supported by operational guidelines, training, post-incident analyses, and regular reviews and revisions.

Findings

As of this FMP, the Department completes an informal review process after incidents.

10.9 Roadmap for Improvement

Training Challenges for Volunteer Fire Departments

In order to maintain overall operational readiness and comply with applicable standards, the Department must ensure that its firefighters maintain their core competencies and meet all skill-review requirements.

The Department should develop an annual training plan that outlines firefighter training needs over a five-year period, such as:

- training sessions that are mandatory for NFPA compliance
- specialized courses for advanced skills
- regular maintenance drills for equipment and apparatus

Creating a training plan can help the Department ensure that each of its members can maintain their competencies through continuous training and skill reviews.

As noted in section 10.2, the Department only dedicates 48 hours each year to all training topics (including medical training, wildland firefighting training, and specialized training). Going forward, the Department should consider increasing the number of hours it dedicates to training.

Training Structure

Creating an effective training program begins with establishing clear standards. Specifically, every firefighter should meet minimum competency requirements that align with NFPA standards and the Department's standard operating procedures. These requirements would serve as the foundation for all of the Department's training activities, and they would help the Department ensure that all of its members maintain a consistent level of competency. The Department should also document these requirements to ensure clarity and accountability for both instructors and participants.

The document that outlines the Department's minimum competency requirements should also include an annual training plan. The Department should make this document accessible to the personnel at all of its stations in order to reduce scheduling conflicts and ensure that all training is delivered consistently throughout the organization.

The Department should also ensure that its delivery methods are flexible. For instance, the Department should consider using a blended learning approach that combines online modules with practical, hands-on training. Online modules can cover a variety of theoretical topics, such as fire behaviour, safety protocols, and equipment theory. Offering some training online could help the Department accommodate the varied schedules of its volunteer firefighters, which would allow those personnel to complete theoretical training at their own pace. Overall, taking this approach could ensure that firefighters can stay current with NFPA updates and gain the practical experience necessary for operational readiness.

Officer Development Program

The Department should develop an officer development program in order to develop leadership skills within the organization.

As part of this program, the Department should use a tiered approach to guide the progression from a lieutenant role to a captain role. This structure should list the requirements for each level of progression, including specific training, experience, and performance benchmarks. In order to prepare leadership personnel for both emergency and administrative responsibilities, the officer development plan should focus on building core competencies, including incident command, communication, resource management, and mentoring skills.

Officer training should also include mandatory OHSA awareness training in order to ensure compliance with O. Reg. 297/13. The OHSA training provides officers with a clear understanding of their legal responsibilities regarding workplace safety (including the rights and duties of workers, supervisors, and employers), as well as hazard identification and the internal responsibility system.

Driver Training and Licensing

As noted in section 10.7 of this FMP, the Department has 75 personnel who are eligible to hold a DZ licence. As of this FMP, 46 of those 75 personnel (61 per cent) hold a DZ licence. However, only two of the Department's 25 eligible personnel (8 per cent) are certified to the standard of NFPA 1002. The Department should aim to increase the proportion of personnel who have a DZ licence to a minimum of 50 per cent within a year, and 75 per cent within 18 months.

In order to raise its licensing certification levels, the Department should establish a driver training and licensing program that includes quarterly training academies and integrated DZ licence training. Developing this program will involve the following steps:

1. The Department should establish strong compliance and oversight measures as a foundation for the program.
2. The Department should form partnerships and develop support systems that make training accessible and affordable. For instance, collaborating with local driving schools and offering financial assistance for training and testing can help remove barriers and encourage participation.
3. The Department should create an internal driver qualification program that aligns with NFPA standards in order to ensure consistency and operational safety across all stations. This program must clearly define the Department's expectations for drivers, including the steps that personnel must take before they are authorized to operate a fire apparatus. The program should include training on emergency response driving, defensive driving, pump operations, rural water supply, and apparatus handling. The program should incorporate regular licence checks, driver performance evaluations, and periodic skills reviews in order to maintain driver proficiency and reinforce best practices.

4. The Department should address barriers and incentivize participation. Offering flexible scheduling options and financial support will help overcome common obstacles. Updating departmental policies and collaborating with union representatives and representatives of the Human Resources Department will formalize expectations and create sustainable paths forward.

Overall, developing a driver training and licensing program can help the Department demonstrate due diligence regarding licensing compliance, improve operational safety, and establish an effective long-term approach to driver training and competency.

NFPA Certification

As shown in Table 17 of this FMP, many of the Department's core services require attention. The Department must prioritize these areas in order to ensure that its firefighters are trained to meet the level of service defined in the E&R bylaw for Stone Mills.

As a way to strengthen core certifications and align with the E&R bylaw, the Department should prioritize ways to "close gaps" in its certification with foundational NFPA standards. The immediate focus must be on completing Firefighter I and II (where progress is already above 70 per cent) and then converting all in-progress members to certified status within the next 12 months.

Urgent attention is also needed for NFPA 1002 (Fire Apparatus Driver/Operator), where certification levels are critically low (at 3 per cent of eligible firefighters). Another essential certification is NFPA 1072 (Hazardous Materials Response).

The Department must also establish baseline competencies for NFPA 1006, Chapter 8: Common Passenger Vehicle Rescue (at the operations level). As of this FMP, the certification level for this standard is 0 per cent. More information about this topic is discussed in section 4.

If the Department can build a foundational level of certification within the first year, it will allow personnel to progress to certification at the technician level. (As of this FMP, some of the Department's personnel are already in the process of attaining this level of certification.) In order to ensure success, strong governance and tracking methods are key. For example, quarterly reviews should be conducted to monitor certification rates, reallocate resources to low-coverage areas, and ensure alignment with the E&R bylaw. Also, the Department should try to leverage its existing strengths in officer and instructor certifications as a way to deliver internal training efficiently.

By following this roadmap, the Department can achieve full compliance, improve service delivery, and maintain a sustainable training program to ensure future readiness.

Post-Incident Analysis and Review

Going forward, the Department should establish a PIAR process. Conducting PIARs is vital to a fire department's operations, as these reviews ensure there is a structured approach to identifying lessons learned from real-world events.

By reviewing incidents after they occur, the Department can identify which aspects of its response efforts worked well, as well as uncover gaps in its procedures to address safety concerns before they lead to future problems. This process will improve operational effectiveness, enhance firefighter safety, and ensure compliance with NFPA standards and other legal requirements.

The Department should develop a PIAR process by developing a written policy that specifies when a review should occur, who will participate in a review, and what objectives the review process will aim to achieve. Also, the PIAR process/policy should align with NFPA standards and best practices for continuous improvement.

10.10 Recommendations

Recommendations regarding the training program in Stone Mills are as follows:

- 10-1. The Stone Mills Fire Department should develop a comprehensive annual training plan to ensure that its firefighters maintain their core competencies and meet skill review requirements to remain operationally ready and compliant with NFPA standards.
- 10-2. The Stone Mills Fire Department should investigate the need to adjust its annual training hours to ensure firefighters receive enough competency-based training to maintain operational readiness and compliance with NFPA standards.
- 10-3. The Stone Mills Fire Department should establish a consistent and effective annual training program. The programs should set clear standards that align with NFPA requirements and departmental standard operating procedures.
- 10-4. The Fire Chief should formalize an officer development program for the Stone Mills Fire Department. This program should equip the officers with technical competencies, leadership skills, and the ability to meet the definition of a competent supervisor (as defined by the Occupational Health and Safety Act).
- 10-5. The Stone Mills Fire Department should make it a priority to ensure that all of its members achieve NFPA 1001, Level I and Level II certifications within the next 12 months.

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- 10-6. The Stone Mills Fire Department should prioritize the completion of NFPA 1002 (Driver/Operator) certification. The fire department should implement a structured program that aims to achieve at least 50 per cent certification within one year, and 75 per cent within 18 months.
 - 10-7. The Stone Mills Fire Department should focus on completing all competencies required to meet the level of service outlined in the establishing and regulating bylaw for Stone Mills.
 - 10-8. The Stone Mills Fire Department should establish a structured and consistent driver training and licensing program.
 - 10-9. Stone Mills should consider providing financial support to its firefighters so that they can obtain and maintain the licenses they need to operate the types of vehicles used by the Stone Mills Fire Department.
 - 10-10. The Stone Mills Fire Department should develop a formalized written driver/operator competency program. The program should clarify the initial and ongoing levels of proficiency that personnel who drive and operate vehicles are expected to obtain.
 - 10-11. The Stone Mills Fire Department should establish a formal process for conducting a post-incident analysis and review. The goal of this process should be to strengthen operational effectiveness, enhance firefighter safety, and ensure compliance with NFPA standards and legal requirements.
 - 10-12. The Stone Mills Fire Department should consider implementing a blended learning model that incorporates online modules for the theory-based components of firefighter training. This approach would allow firefighters to complete theoretical coursework outside of their fire station, freeing up in-person sessions for practical, hands-on skills development.

11.0 Response

11.1 Overview

Fire departments must respond promptly to all emergency calls in order to maximize the protection of residents and minimize potential property damage and dollar loss. A prompt response time is especially critical when an emergency involves a structure fire. The growth of a fire is caused by heat, and it is dependent upon fuel and air supply. Once the temperature in a room ablaze reaches approximately 1,000 °F (590 °C), a flashover will occur in the entire room within six to ten minutes (or less). A flashover is an instance of a fire spreading very rapidly across a gap because of intense heat. When a flashover occurs, it significantly increases the risk of fatalities and property damage.

It is also vital to have a quick response time when a medical emergency occurs. Recent research has shown that response times and mortality are correlated.²² For example, when a patient is experiencing a heart attack, their survivability decreases at a rate of 10 per cent/minute.²³ The outcomes of many other medical emergencies also depend on fast response times.²⁴

Although not all fire departments respond to the same incidents (such as medical calls), they should still understand the importance of response times in order to determine which services, staffing levels, and performance standards are applicable to them.

Every municipal council should determine which types and levels of service its fire department should provide. Once those items are established, the council should determine the fire department's performance standards.

In general, performance standards establish how many firefighters should respond to an emergency and how long it should take for them to arrive at an incident site. A fire department can assign response duties based on those considerations. In all cases, it is essential for a fire department to respond to emergencies with an adequate number of personnel and resources in order to deliver effective fire protection and suppression services.

By setting performance standards, a fire department can ensure that it is achieving fast, consistent response times while dispatching a fire crew with enough personnel to complete all critical tasks in a timely manner.

²² Pons et al., "Paramedic Response Time: Does It Affect Patient Survival?"

²³ Medical Advisory Secretariat, "Use of Automated External Defibrillators in Cardiac Arrest: An Evidence-Based Analysis."

²⁴ Blackwell and Kaufman, "Response Time Effectiveness: Comparison of Response Time and Survival in an Urban Emergency Medical Services System"; Wilde, "Do Emergency Medical System Response Times Matter for Health Outcomes?"

11.2 Effective Response Force

11.2.1 Staffing Levels, Response Benchmarks, and NFPA Standards

Context

For many years, fire departments analyzed their performance levels by comparing their initial response times to a standard metric. However, many agencies now agree that fire departments should set their own benchmarks in order to measure their performance levels. This process involves determining a fire department's effective response force.

The term "effective response force" refers to the following:

- The number of firefighters needed to respond to an emergency safely and effectively.
- The resources needed to respond to an emergency safely and effectively.
- The time it takes for firefighters and resources to arrive at the scene of an emergency

After determining the effective response force that it should provide, a fire department should examine its past performance, fire station locations, and minimum dispatch time. By examining these factors, a fire department can identify its strengths and weaknesses and determine how often it has dispatched its intended effective response force. The fire department can then establish response benchmarks that it can use to measure its performance.

If a fire department can meet its self-determined benchmarks, it means that the organization is operating at optimal capacity during emergency responses. A fire department can also analyze responses that fall short of its benchmarks to identify areas for improvement. For example, a fire department may set its total response time at 12 minutes, and it might aim to achieve that response time for 90 per cent of its responses. In this example, the fire department assumes that 10 per cent of its responses will involve a total response time that exceeds 12 minutes. By analyzing the responses that are longer than 12 minutes, the fire department can determine the issues that hinder its ability to meet its goals. This form of self-assessment can provide information that impacts decisions about station locations, staffing levels, apparatus deployment, and future standard development.

A fire department can submit its response benchmarks to its municipal council for approval to ensure that the community understands the fire protection services it can expect to receive. Each community has unique hazards, expectations, and needs, and it is important to make sure the fire department's response benchmarks consider those factors.

Finally, it is important to make sure that all decisions adhere to applicable legislation and guidelines, such as the FPPA, the OHSA, and NFPA standards.

For example, under the OHSA, employers are responsible for protecting employees from workplace injuries or death. As such, fire departments and municipal councils must ensure that their firefighters receive adequate training and supervision for all services they provide.

The following NFPA standards provide information that fire departments can reference when determining their emergency response benchmarks:

- NFPA 1225, *Standard for Emergency Services Communications*
- 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*²⁵

The information in NFPA 1720 is particularly useful to review, as it contains recommendations for a variety of demand zones.

Table 20 shows the staffing levels and response time standards that NFPA 1720 provides for urban, suburban, rural, and remote area demand zones.²⁶ The table defines each type of demand zone by its demographics, and it indicates the minimum number of staff needed for responses in each area, as well as the expected response time.

Table 20 also includes a metric for measuring fire department effectiveness. (The metric lists how many personnel should respond to an incident within an expected time.) For example, if an incident occurs in an urban area demand zone, a fire department should dispatch at least 15 personnel to the emergency site. If the fire department can dispatch those 15 personnel within nine minutes at least 90 per cent of the time, that fire department is considered effective.

²⁵ NFPA 1710 and 1720 are scheduled to be consolidated into NFPA 1750 by 2025.

²⁶ This table is adapted directly from section 4.3.2 of NFPA 1720.

Table 20. Staffing and response time standards as per NFPA 1720.

Demand Zone ²⁷	Demographics	Minimum Staff to Respond ²⁸	Response Time ²⁹ (minutes)	Meets Objective (%)
Urban area	> 1,000 people/mi ² (2.6 km ²)	15	9	90
Suburban area	500 to 1,000 people/mi. ² (2.6 km ²)	10	10	80
Rural area	< 500 people/mi. ² (2.6 km ²)	6	14	80
Remote area	Travel distance ≥ 8 mi. (12.87 km)	4	Directly dependent on travel distance	90
Special risks	Determined by AHJ	Determined by AHJ based on risk	Determined by AHJ	90

In addition to the information in the table above, sections 4.3.4 and 4.3.5 of NFPA 1720 outline the following requirements for all fire departments:

Upon assembling the necessary resources at the emergency scene, the fire department shall have the capability to safely commence an initial attack within 2 minutes 90 percent of the time.

Personnel responding to fires and other emergencies shall be organized into company units or response teams and have the required apparatus and equipment..³⁰

Section 4.4.2 of NFPA 1720 addresses annual evaluation requirements as follows:

The fire department shall evaluate its level of service, deployment delivery, and response time objectives on an annual basis.

²⁷ A jurisdiction can have more than one demand zone.

²⁸ Minimum staffing includes members responding from the AHJ's department and automatic aid.

²⁹ Response time begins upon completion of the dispatch notification and ends at the time interval shown in the table.

³⁰ 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*.

The evaluation shall be based on data relating to level of service, deployment, and the achievement of each response time objective in each demand zone within the jurisdiction of the fire department.³¹

Findings

As of this FMP, the Department does not measure its performance levels or response times against any benchmarks.

According to the 2021 Statistics Canada census, Stone Mills has a population density of 11.3 people per sq. km (or 29.3 people per sq. mi.).

Based on the community's current population density, Stone Mills should consider following the guidelines that NFPA 1720 provides for a rural area demand zone. Doing so can help assess the effectiveness of the fire services provided for structure fires that occur in Stone Mills.

11.2.2 Crew Size and Direct Response to Incidents

Context

In some communities, the firefighters respond to their fire station when an emergency call is received. Other communities permit their firefighters to proceed directly to an emergency scene in their personal vehicles. It is the responsibility of a fire department's leadership team to determine which kind of response is acceptable.

Permitting a direct response has some advantages, such as:

- Volunteer personnel may be able to reach areas that are not located near a fire station before an apparatus can arrive.
- Volunteers may be able to provide medical care (if medical equipment is available).

However, permitting a direct response also has many disadvantages, such as:

- It may be difficult for an Incident Commander to form crews of an appropriate size and maintain a reasonable span of control.
 - NFPA 1561 recommends that crews operate in organized teams under direct supervision to ensure coordinated and safe operations.
 - Firefighter Guidance Note 2.1, "Incident command," stresses the importance of proper incident command and crew management to reduce risks and improve operational effectiveness.

³¹ Ibid.

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- The unstructured arrival of firefighters at different times can lead to confusion, delays in assigning tasks, and challenges in tracking personnel. Each of these issues can compromise accountability and firefighter safety.
 - As firefighters arrive, their personal vehicles may create traffic hazards or unsafe conditions at the emergency scene.
 - If an accident occurs while a firefighter is en route to an incident, the firefighter, the fire department, or the municipality may be held liable.
 - Firefighters who arrive at an incident before an apparatus may not have access to full protective gear, such as firefighting tools, SCBA, and medical PPE. A lack of appropriate equipment may limit a firefighter's ability to mitigate an incident.
 - Firefighters who arrive at an incident before an apparatus may choose to take high-risk actions without proper equipment or supervision. These actions may create challenges for other responding personnel if the firefighters require assistance.
 - Firefighters may not have all the pertinent information about the incident (such as the presence of a violent person or hazardous materials).
 - Firefighters who arrive at an emergency scene located on a roadway may be struck by a vehicle if a proper "blocker truck" has not yet arrived.
 - It is more difficult to record accurate arrival times for individuals than for fire crews.

Response procedures are often based on factors such as departmental policies, geography, call type, and available resources. In order to ensure safety and consistency, leadership personnel must also consider issues related to liability, insurance, and provincial regulations when developing response models.

Many fire departments require their personnel to report to the fire station in order to ensure there is proper accountability, gear access, and organized response in department vehicles. Alternatively, in some rural or spread-out areas, a department's leadership team may authorize select personnel to respond directly to the scene of an emergency in their personal vehicles in order to reduce response times, but all personnel operating under this mandate must be trained and equipped appropriately.

Regardless of its approach, a fire department should develop SOGs that outline when direct responses are appropriate, what equipment must be transported, and how scene safety and accountability are to be maintained.

When determining response procedures, a fire department should consider its ability to provide a crew of an appropriate size. The National Institute of Standards and Technology ("**NIST**") has conducted more than 60 controlled fire response experiments to determine whether the size of a fire crew impacts its ability to protect lives and property during responses to residential fires.

The NIST summarized the findings of its fire response experiments as follows:

[...] four-person firefighting crews were able to complete 22 essential firefighting and rescue tasks in a typical residential structure 30 percent faster than two-person crews and 25 percent faster than three-person crews.

Researchers also performed simulations using NIST's Fire Dynamic Simulator to examine how the interior conditions change for trapped occupants and the firefighters if the fire develops more slowly or more rapidly than observed in the actual experiments. The fire modeling simulations demonstrated that two-person, late-arriving crews can face a fire that is twice the intensity of the fire faced by five-person, early arriving crews. Additionally, the modeling demonstrated that trapped occupants receive less exposure to toxic combustion products—such as carbon monoxide and carbon dioxide—if the firefighters arrive earlier and involve three or more persons per crew.³²

Another NIST study evaluated the effectiveness of fire crew sizes during responses to high-rise fires. The NIST summarized the findings of that study as follows:

The NIST study, conducted with 13 Washington, D.C.-area fire departments, analyzed 14 “critical tasks”—those undertaken when potential risks to building occupants and firefighters are greatest—[and] found that three-member crews took almost 12 minutes longer than crews of four, 21 minutes longer than crews of five, and 23 minutes longer than crews of six to complete all tasks. Four-person crews took nine minutes and 11 minutes longer than five- and six-member crews, respectively.³³

Due to the inherently dangerous and unpredictable nature of emergency scenes, firefighters should operate under direct supervision at all times. Direct supervision helps ensure that safety protocols are followed, risks are properly assessed, and tasks are carried out efficiently and effectively.

Fire departments must also provide direct supervision in order to meet legislative requirements:

- Section 25.2 (a) of the OHSA states that employers must “provide information, instruction and supervision to a worker to protect the health or safety of the worker.”
- Section 25.2 (h) of the OHSA states that employers must “take every precaution reasonable in the circumstances for the protection of a worker.”

³² National Institute of Standards and Technology, “Landmark Residential Fire Study Shows How Crew Sizes and Arrival Times Influence Saving Lives and Property.”

³³ National Institute of Standards and Technology, “Landmark High-Rise Fire Study Evaluates Effectiveness of Crew Sizes, Elevator Use”

Findings

The Department's current staffing model requires firefighters to report to their assigned fire stations before responding to an emergency. Reporting to the station enables the firefighters to obtain the apparatus and equipment necessary to respond effectively.

The findings from Stone Mills' 2023 CRA indicated that the Department's response protocol is not the only factor affecting its direct response to incidents. The Department's response to incidents is also affected by Stone Mills' geographic features.

Table 21 lists Stone Mills' main geographic features. The table indicates if the features impact the Department's training and equipment, response and travel time, station locations, or response protocol.

Table 21. Geographic features in Stone Mills.

Geographic Feature	Training & Equipment Impact	Response & Travel Time Impact	Fire Station Location Impact	Response Protocol Impact
Township roads	✓	✓	✓	✓
County roads	✓	✓	✓	✓
Private roads/lanes	✓			
Bridges	✓	✓		✓
Lakes	✓	✓		✓
Rivers	✓	✓		✓
Rail line	✓	✓		✓
Trails	✓	✓		✓
Forested areas	✓	✓		✓
Remote-access areas	✓	✓		✓

11.2.3 Standardized Response

Context

It is beneficial for neighbouring fire departments to standardize their equipment, incident command systems, and operational procedures. Standardization helps to ensure seamless coordination during mutual aid responses. For instance, interoperability can reduce confusion during high-stress situations, as personnel from different fire departments can work together efficiently with shared tools, terminology, and tactics.

Neighbouring fire departments should also consider engaging in joint training sessions. Joint training builds familiarity among crews, improves communication, and reinforces the consistent application of safety protocols.

It is worth noting that the OFM encourages mutual aid partnerships and coordinated emergency management practices that are designed to improve service delivery and responder safety across jurisdictions. This collaborative approach strengthens regional preparedness and ensures a more unified and effective response to complex incidents.

Findings

The Department uses the same type of SCBA as the fire departments in neighbouring municipalities, but it does not have a standardized response plan with any other fire departments.

Internally, the Department's four stations operate under a standardized response plan. The internal response plan provides operational consistency across the Department's stations but does not extend to external partners.

As of this FMP, the Department is actively working toward standardizing the equipment used at its stations. Items such as medical bags, extrication equipment (excluding heavy tools), wildland gear, portable radios, and tankers have already been standardized to ensure consistency and operational efficiency. The Department is also working to standardize all of the pumpers within its fleet.

11.2.4 Emergency Alerting and Personnel Response

Context

Fire departments use a combination of methods to alert their firefighters about incidents. Traditional alerting methods include paging, radio tones, and station alerting systems, which notify personnel of an incident but provide limited visibility into who is responding. Although these methods are reliable, they do not allow officers or dispatchers to determine staffing levels, qualifications, or apparatus viability until personnel arrive at their fire station or the emergency scene.

Modern electronic response notification systems—commonly referred to as “Who’s Responding” platforms—enhance the notification process by alerting firefighters through smartphone applications or integrated dispatch systems. When an incident is created in the computer-aided dispatch system, applicable notifications are automatically sent to personnel. These personnel can then indicate their response statuses in real time. This information is immediately visible to officers and dispatchers, allowing them to see who is responding, as well as the assigned apparatus and whether personnel with critical qualifications (such as officers or qualified drivers) are available.

When the notification information is integrated with computer-aided dispatch systems and mobile data terminals, it can be displayed directly in a responding apparatus. This process provides officers with details about crew composition and staffing levels while they are en route to an emergency scene. There are several benefits associated with this process, including improved operational readiness, reduced uncertainty, consistent firefighter accountability, and informed decision-making before the arrival at the emergency scene. Using real-time response tools and ensuring staffing visibility are particularly beneficial for fire departments with variable staffing levels or a limited number of personnel with specialized qualifications.

Findings

As of this FMP, the Department uses pagers and the Who's Responding application (which the firefighters have installed on their smartphones).

11.2.5 Critical Tasks

Context

A fire department can determine its optimal effective response force by completing a critical tasks analysis for each type of emergency response that it is required to provide. This process allows a fire department to standardize its emergency response protocols and ensure it dispatches the appropriate number of personnel for each type of incident.

A critical tasks analysis can be completed by using the following steps:

1. Examine the type of risks that exist at an emergency scene.
2. Identify the tasks needed to eliminate the risks that exist at an emergency scene.
3. Determine the number of personnel needed to carry out the tasks that will mitigate and eliminate the risks that exist at an emergency scene.

When it comes to performing critical tasks, fire departments can either assign the tasks to multiple personnel or carry out the tasks sequentially.

Often, fire departments use an assignment chart (based on information received at the time of an emergency call) to assign critical tasks on the fireground during an emergency response. If an incident safety officer is available, they can assess the overall safety of the incident and provide critical information to the Incident Commander.

Fire departments must also consider the location of the emergency, as the location will impact the assignment and performance of critical tasks. For example, when a fire occurs in an area that does not have municipal fire hydrants, it is critical for the responding fire department to have enough firefighters on the scene to ensure there is an adequate level of support and water supply to perform suppression duties.

Various fire service authorities have developed general guidelines about resource deployment. Table 22 presents a critical tasks analysis for a fire in a single-family home (based on best practices and findings from the NIST, NFPA, and OFM). In addition to the number of personnel noted in the table below, fire departments should also consider assigning an individual to serve as an ISO.³⁴

Table 22. Minimum firefighters required for critical tasks at single-family home fires.

Personnel	Critical Tasks	Firefighters Required
Crew #1	- Perform search and rescue duties. - Conduct fire control/extinguishment duties on the fire floor. - Serve as the pump operator.	4
Crew #2	- Provide backup support for crew #1. - Perform search and rescue duties. - Locate the fire extension beyond the immediate fire area.	4
Crew #3	- Assume the role/duties of a rapid intervention team. - Conduct firefighting operations after another crew has exited the structure and is ready to take over the rapid intervention team duties.	4
Chief Officer	Serve as Incident Commander.	1
Accountability/ Scribe	Help the Incident Commander organize tasks on the fireground.	1
Total		14

Findings

The Department uses a critical tasks analysis during critical response operations. Assigned tasks are initially limited to the personnel present at the scene. As additional personnel arrive, the scope and complexity of tasks increase to include advanced firefighting, rescue, and support functions.

³⁴ For more information about the concept of an ISO, see section 8.7.3 of this FMP.

11.2.6 Aerial Operations

Context

Aerial operations can play a crucial role in effectively managing structure fires, especially in areas that are not easily accessible from the ground.

An aerial apparatus is a vehicle with an extendible ladder or elevated platform. This kind of apparatus is used to provide elevated water streams, which increase the reach and effectiveness of fire suppression efforts. These vehicles also support roof access and high-angle rescues, both of which are vital for firefighter safety and the rapid control of fire spread.³⁵ The presence of an aerial apparatus also improves operational efficiency and allows the Incident Commander to deploy resources more strategically, particularly when interior attacks are limited due to fire intensity, hazardous conditions, or structural instability.

Given the importance of aerial capabilities, forming automatic aid agreements with neighbouring fire departments to dispatch an aerial apparatus to structure fires has merit. The agreements are particularly important because not all departments have the financial means or staffing levels to maintain their own aerial units. As such, mutual aid or automatic aid agreements can help ensure communities have timely access to these resources when needed.

The automatic dispatch of an aerial unit minimizes delays, allowing for quicker aerial deployment during the critical early stages of an incident. This kind of regional collaboration enhances fireground safety while improving outcomes for both civilians and responders.

Findings

As of this FMP, the Department does not have an aerial apparatus in its fleet.

Going forward, the Department should establish an automatic aid or service agreement with a neighbouring fire department to ensure Stone Mills receives aerial coverage when required.

11.3 Response Statistics

Context

Reviewing historical performance levels and response statistics (such as the types and number of emergency responses) can help a fire department identify its service delivery

³⁵ National Fire Protection Association. *NFPA 1900, Standard for Aircraft Rescue and Firefighting Vehicles, Automotive Fire Apparatus, Wildland Fire Apparatus, and Automotive Ambulances.*

capabilities. In addition, modelling and statistical analyses can be conducted to determine whether resources are being used efficiently and effectively.

All fire departments should also retain accurate records of their historical response times. The information is essential to have when measuring performance levels, making strategic decisions, and determining service alternatives.

Table 23 defines the four steps that are involved in dispatching a response to an emergency call.

Table 23. Summary of response time intervals.

Step	Description	Actions
1	Public safety answer point call processing time	- Step 1 begins when the public safety answer point or 911 call centre receives an emergency call and transfers the call to the fire department. - This step ends when the fire department's dispatch centre answers the transferred call.
2	Secondary public safety answer point alarm processing time	- Step 2 begins when the fire department's dispatch centre receives an alarm (referred to as the "incident beginning"). - This step ends when the communication technician/dispatcher activates the paging devices at the fire station (referred to as "dispatch time").
3	Chute time	- Step 3 begins when the fire station activates its pagers (and the responding apparatus begins its response). - This step ends when the apparatus's response is noted by (or to) the dispatcher via the fire department's radio system (referred to as "en route time").
4	Travel time (first unit)	- Step 4 begins when the responding apparatus initially acknowledges its response. - This step ends when the responding apparatus uses its radio to notify the dispatcher that it has arrived at the emergency scene (referred to as "on-scene time").

By timing how long it takes to complete each of the four steps defined above, a fire department can determine the average response time of its first due unit (which is the first vehicle to arrive at the emergency scene). The fire department can also establish a baseline for its effective response force.

In order for historical data to be useful, fire departments must track both the types of responses they make and how long it takes to complete those responses. That information needs to be tracked consistently across all types of responses, including automatic aid and mutual aid responses.

Findings

Table 24 lists the number of times per year (from 2021 to 2025) the Department has assisted other agencies with emergency responses, including automatic aid or mutual aid responses.

Table 24. Automatic aid and mutual aid responses, 2021 to 2025.

Type of Aid	2021	2022	2023	2024	2025	Avg.
Assistance to other agencies	0	0	0	0	0	0
Assistance to police	0	0	0	0	0	0
Automatic aid	16	12	4	5	4	8.2
Mutual aid	6	5	5	10	22	9.6
Total	22	17	9	15	26	17.8

Table 25 lists the types and number of fire responses made by the Department from 2021 to 2025.

Table 25. Fire responses, 2021 to 2025.

Type of Response	2021	2022	2023	2024	2025	Avg.
Loss fires: structures	8	7	8	8	10	8.2
Loss fires: other	0	0	2	1	1	0.8
Loss fires: vehicles	4	12	7	5	7	7
Total	12	19	17	14	18	16

Table 26 lists the amount of dollar loss that occurred in Stone Mills from 2021 to 2025 due to dollar loss fires. The information is organized by occupancy group.

Table 26. Dollar loss by occupancy type, 2021 to 2025.

Occupancy Type	2021	2022	2023	2024	2025
Group A: assembly	\$0	\$10,000	\$0	\$0	\$0
Group C: residential	\$4,306,500	\$482,000	\$1,254,000	\$1,771,500	\$101,500
Group D & E: mercantile and commercial	\$0	\$0	\$10,000	\$2,000,000	\$700,000
Group F: industrial	\$2,000	\$0	\$0	\$0	\$10,000
Other structure	\$0	\$600,000	\$560,001	\$80,000	\$200,000
Vehicle	\$31,000	\$167,200	\$260,000	\$90,000	\$129,500
Yearly Loss	\$4,339,500	\$1,259,200	\$2,084,001	\$3,941,500	\$1,141,000

Response Time Statistics

Table 27 lists the Department's response statistics from 2023 and 2024.

Table 27. Response statistics, 2023 and 2024.

Statistic	Data
Average number of initial responding personnel	2.7 firefighters
Average number of on-scene personnel	10.5 firefighters
Average response distance	5.99 km

Overall, the Department's response statistics indicate that it may be challenging to complete critical fireground tasks, such as fire attack, search and rescue, ventilation, and establishing a rapid intervention team. These tasks typically require a minimum of four firefighters for initial interior operations and an effective response force of ten to 14 personnel for a single-family dwelling fire (as outlined in NFPA 1720). As a result, the Department may not be able to perform these time-sensitive tasks safely and efficiently, particularly in areas outside the 18-minute coverage zone.

Ultimately, the Department achieves its effective response force as other firefighters arrive throughout the response, including other firefighters from the Department and firefighters dispatched from Loyalist, Greater Napanee, and Tweed (as per automatic aid agreements).

Emergency Response Statistics

The Department completed the following number of emergency responses per year from 2021 to 2025:

- The Department completed 162 responses in 2021.
- The Department completed 184 responses in 2022.
- The Department completed 163 responses in 2023.
- The Department completed 209 responses in 2024.
- The Department completed 238 responses in 2025.

Figure 1 shows the locations of responses made by the Department to loss fires from 2020 to 2024.



Figure 1. Locations of loss fires in Stone Mills, 2020 to 2024.

11.4 GIS Mapping

Context

After determining its historical response times, a fire department can use Geographic Information System (“**GIS**”) maps to determine the distance that it can reach with its fire apparatus within a given amount of time.

Because GIS maps are based on municipal road speeds and road networks, they provide more accurate information than previous mapping techniques. Using GIS maps can help a fire department understand how the location of its fire stations and associated travel routes can affect its response times. This information can help a fire department determine the response boundaries of its effective response force.

Findings

As part of the FMP development process, The Loomex Group created a series of GIS maps for Stone Mills that illustrate the area that the Department’s four stations can cover in 18 minutes (subtracting each station’s average chute time).³⁶

The GIS maps that were created for this FMP are as follows:

- Figure 2 illustrates the current response area of the Department’s four fire stations.
- Figure 3 illustrates the current response area of Station 1 – Yarker.
- Figure 4 illustrates the current response area of Station 2 – Enterprise.
- Figure 5 illustrates the current response area of Station 3 – Newburgh.
- Figure 6 illustrates the current response area of Station 4 – Tamworth.

³⁶ The maps shown in this section have also been provided to Stone Mills in an interactive format that allows the township to compare a variety of response time intervals from each station.

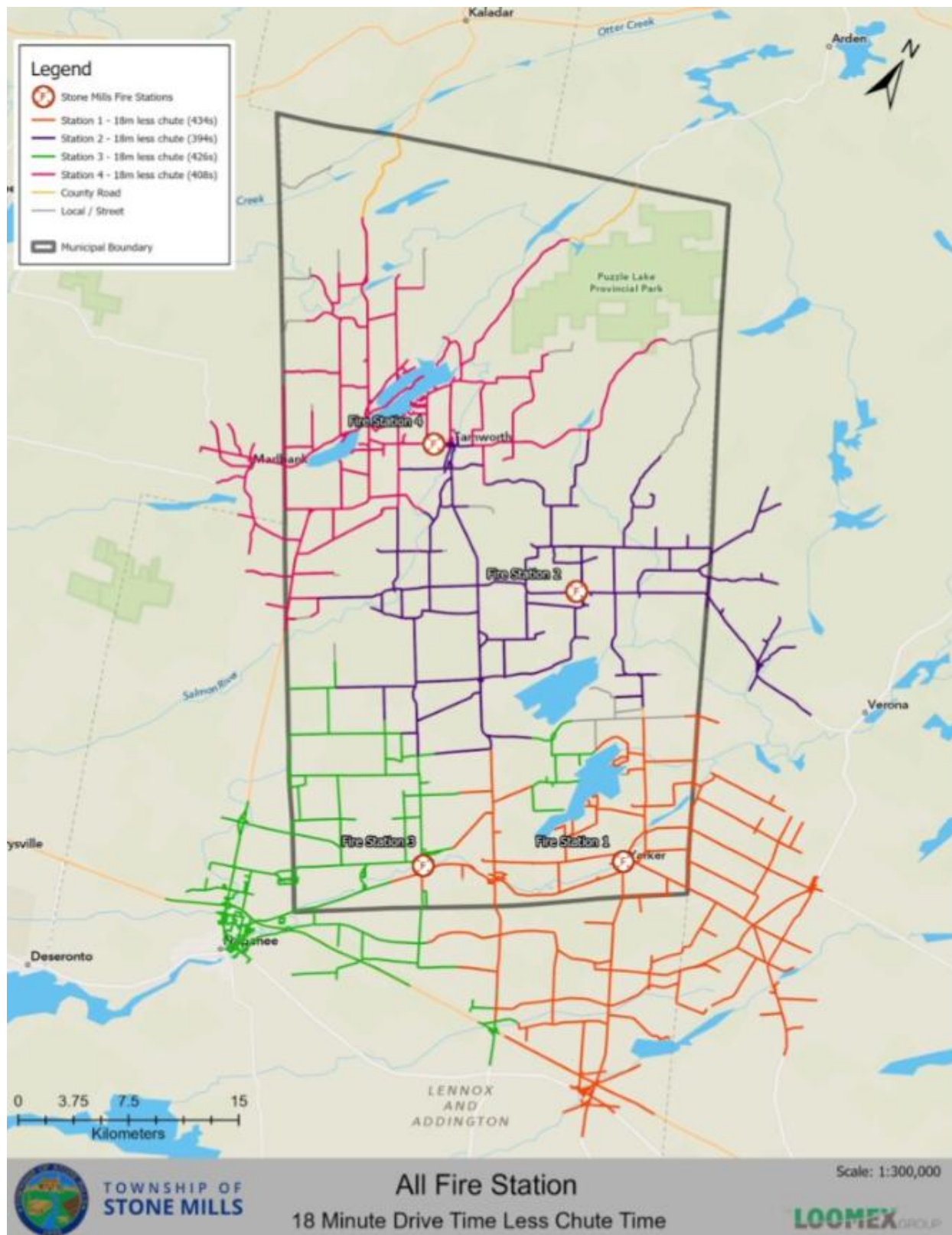


Figure 2. Response area coverage provided by Stone Mills fire stations.

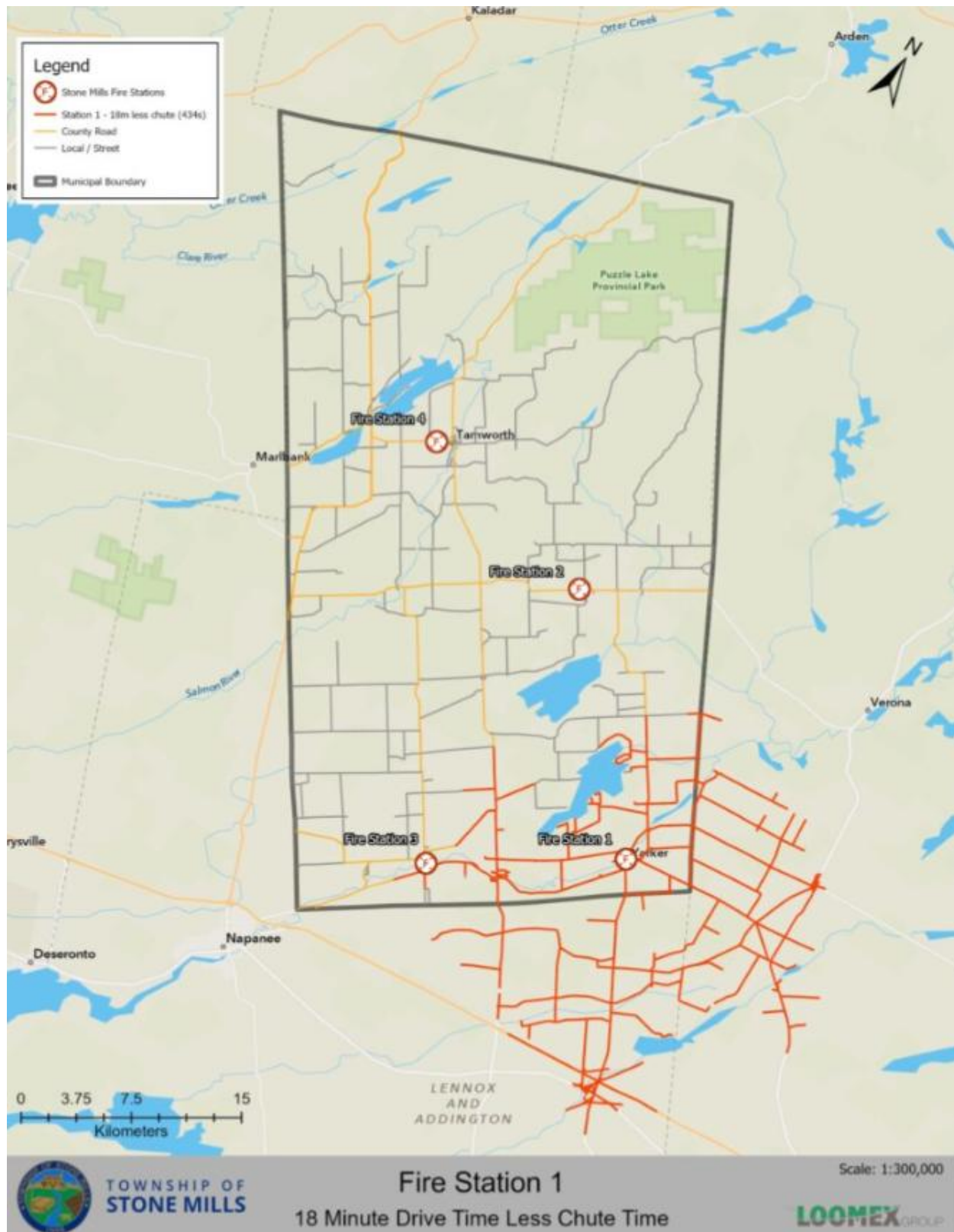


Figure 3. Station 1 – Yarker response area coverage.

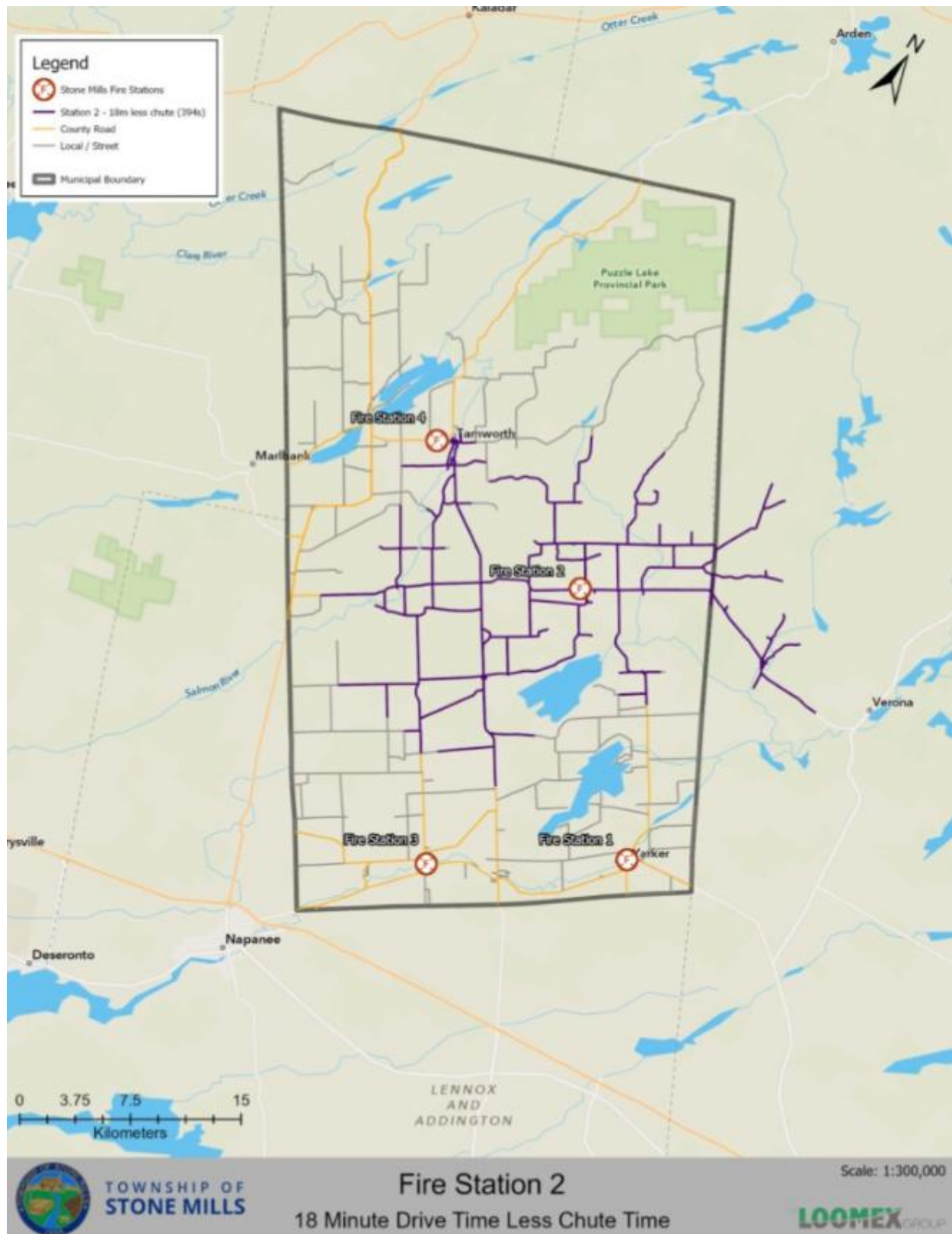


Figure 4. Station 2 – Enterprise response area coverage.

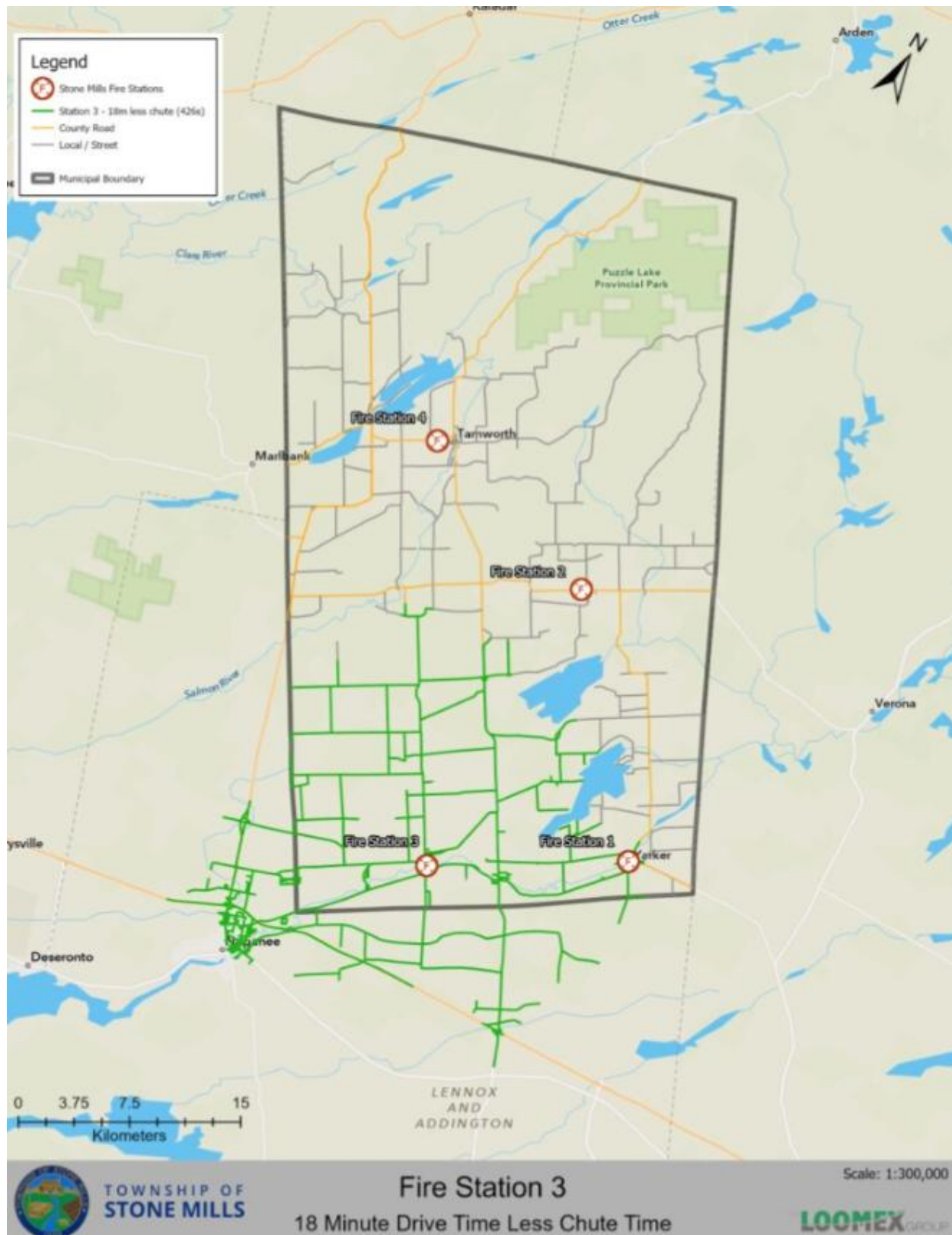


Figure 5. Station 3 – Newburgh response area coverage.

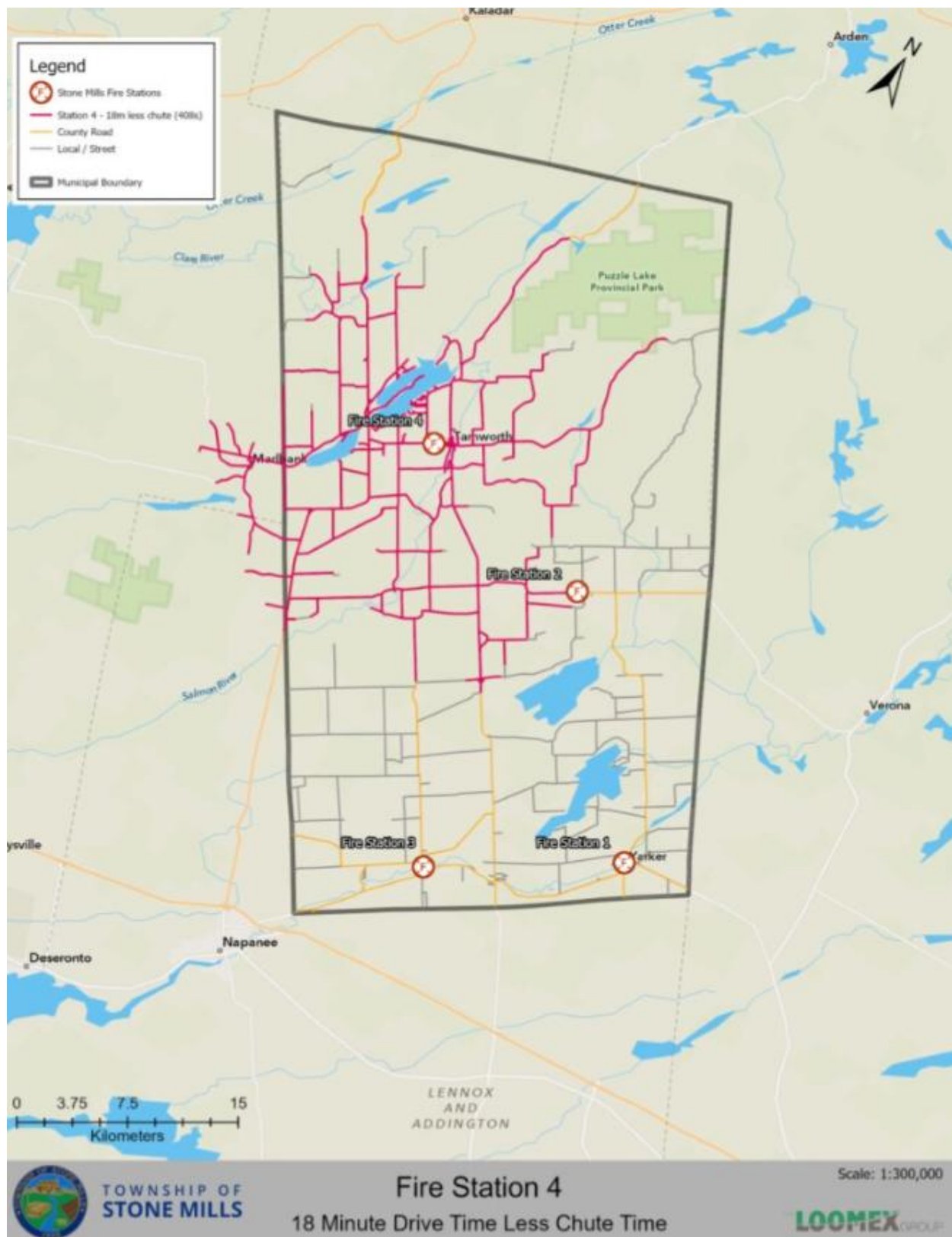


Figure 6. Station 4 – Tamworth response area coverage.

The maps provided above show the following information:

- As shown in Figure 2, there are gaps in the Department's coverage in the northwest and northeast of Stone Mills, as well as small sections in the western and eastern portions of the township.
- The Department's first responding apparatus can reach most areas in Stone Mills within approximately 18 minutes. However, the northernmost regions, which have a lower population density, fall outside this response window.
 - The Department maintains automatic aid agreements with the fire departments in Loyalist, Greater Napanee, and Tweed, ensuring enhanced responses in areas outside of the 18-minute response zone.
- The Department's 18-minute response zone includes most of the areas where fire incidents occurred between 2020 and 2024.

11.5 Roadmap for Improvement

Staffing Levels, Response Benchmarks, and NFPA Standards

The Department should conduct a comprehensive gap analysis in order to compare its staffing levels to NFPA 1720 standards. The NFPA standards outline the minimum personnel requirements for volunteer and combination departments based on population density and response times.

Based on Stone Mills' current population density, the township should follow the NFPA 1720 guidelines for a rural area demand zone. According to this standard, the Department should respond with at least six personnel within 14 minutes for 80 per cent of its responses.

Going forward, it is critical that the Department align its response efforts with NFPA response standards. The Department should adopt NFPA 1720 guidelines and ensure its initial attack capability meets the standard's incident command and rapid intervention requirements. The Department should conduct regular training and compliance audits in order to maintain readiness and demonstrate adherence to NFPA standards.

Integrating the benchmark outlined in NFPA 1720 and implementing the required staffing improvements can help the Department enhance its operational effectiveness and protect community safety within Stone Mills.

Crew Size and Direct Response to Incidents

If the Department chooses to permit direct responses to emergency scenes, it should also enhance the use of its real-time staffing dashboard. Using this dashboard will allow the Department to monitor which personnel are responding to each incident and confirm that responding apparatus are adequately staffed prior to arrival.

The Department can enhance operational awareness and firefighter accountability by providing a responding apparatus with real-time information identifying which personnel are responding on each unit, including their roles and critical qualifications, through the integration of computer-aided dispatch systems, mobile data terminals, and response management systems.

The Department must also consider how contaminated gear worn by personnel who responded directly to an incident will be transported from the emergency scene. Allowing firefighters to transport contaminated gear in their personal vehicles poses a significant health and safety risk for firefighters and their families.

Critical Tasks

Currently, this FMP is the only source of information the Department can use to determine whether it is meeting the requirements for the number of personnel needed to complete applicable critical tasks during responses to structure fires.

Going forward, the Department should track information related to critical tasks in more detail. Having critical task information is important for ensuring the safety of the Stone Mills community and its firefighters. For instance, knowing the average number of personnel required to complete critical tasks on the fireground allows the Department to set operational procedures to ensure the safety of its firefighters. If the Department is not providing an adequate number of personnel to perform critical tasks safely, it will need to adjust staffing levels or the level of service it provides.

Aerial Operations

As of this FMP, the Department does not have an aerial apparatus, which limits its ability to perform elevated operations (such as ventilation, rescue, and master stream application). Stone Mills lacks sufficient water sources to operate an aerial apparatus effectively.

In order to address this issue, the Department should formalize an automatic aid or service agreement with a neighbouring department that owns an aerial apparatus. The established agreement should clearly define activation protocols, response times, and cost-sharing arrangements to ensure seamless integration during incidents requiring an aerial apparatus.

Furthermore, the Department should develop a joint training program with the partner agency to ensure operational familiarity with the aerial apparatus.

11.6 Recommendations

Recommendations regarding response in Stone Mills are as follows:

- 11-1. The Stone Mills Fire Department should adopt the rural demand zone guidelines outlined in NFPA 1720, as doing so can help improve staffing and response capabilities by identifying shortfalls in staffing levels. The guidelines can also be referenced to help develop a staffing improvement plan.
- 11-2. The Stone Mills Fire Department should define the minimum crew size needed for an initial response that meets operational and safety requirements, which may include the need to have personnel make a direct response to emergency scenes (rather than attend their fire station first).
- 11-3. The Stone Mills Fire Department should make full use of its existing real-time staffing dashboard in order to monitor which personnel are responding to emergency calls and ensure that the required vehicles have sufficient personnel assigned to them.

12.0 Fire Department Structure

12.1 Overview

As a best practice, a fire department's organizational structure should be based on several considerations, such as:

- leadership
- resource allocation
- staffing levels
- community needs, risk profile, and call volume

The items listed above can directly affect a fire department's efficiency and safety during emergency responses. These factors can also influence the public's level of trust in the fire department's capabilities.

According to the NFPA, organizational effectiveness is closely linked to emergency response outcomes, with well-managed fire departments showing better incident control and lower injury rates.³⁷ A strong organizational foundation can also enhance a fire department's ability to conduct fire prevention, public education, and community engagement initiatives.

12.2 Organizational Structure and Staffing Levels

12.2.1 Staffing

Context

In order to meet the needs of its community, a fire department must ensure that it has the appropriate staffing levels and positions (as approved by its municipal council). Having an appropriate staffing structure can help a fire department accomplish the following objectives:

- Minimize response times.
- Dispatch enough personnel to perform critical tasks simultaneously (such as fire suppression, search and rescue, and incident command).
- Enhance the safety of firefighters and members of the public.
- Increase operational efficiency.

³⁷National Fire Protection Association, *NFPA 1201: Standard for Providing Fire and Emergency Services to the Public*.

- Comply with provincial standards.
- Help the local municipality meet its corporate goals and fulfill its vision.

Findings

Figure 7 shows the current organizational chart for the Department.

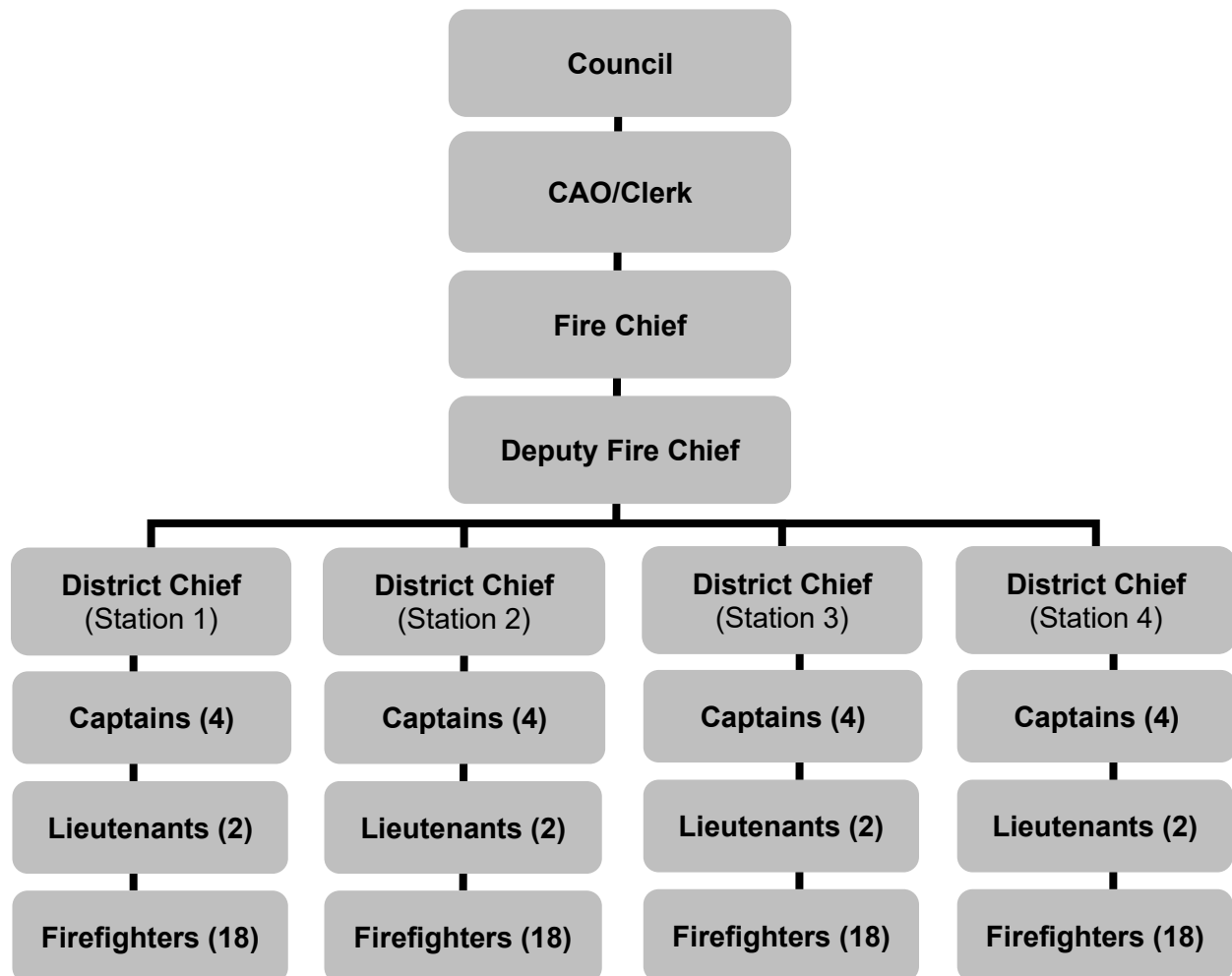


Figure 7. Organizational chart, Stone Mills Fire Department.

In addition to the positions shown in the figure above, each of the Department's stations has two training officer positions, which are filled by captains and lieutenants.

Because the Department is a volunteer-based fire services provider, its staffing levels fluctuate regularly. As of this FMP, the Department has 1.2 full-time employees and 100 volunteer personnel.

12.3 Roles and Responsibilities

The subsections below summarize the responsibilities that are delegated to each position within the Department. The roles and responsibilities listed are taken directly from the Department's official job descriptions. (This FMP is not intended to show an exhaustive list of duties. For more information about each role, consult the full versions of the Department's job descriptions.)

12.3.1 Public Works Manager/Fire Chief

Approximately 70 per cent of this role's time is dedicated to the duties of the Public Works Manager position, and approximately 30 per cent of this role's time is dedicated to the duties of the Fire Chief position.

Public Works Manager Duties

- Reports and investigations.
- Personnel Management (Supervisor, Lead Hands, Public Works and landfill staff).
- Workplace Health and Safety for Public Works and Waste/Landfill Employees.
- Technical oversight of standards and design solutions.
- Managerial responsibility for public works departmental resources.
- Compliance and legislation.
- Budget Creation, reporting and management of Public Works Operating and Capital Budgets.
- Major purchases of inventory and equipment.
- Capital project funding applications pertaining to Roads, Bridges and Waste Management.
- Pre-engineering construction projects.

Fire Chief Duties

- Prepares and/or approves administrative reports.
- Oversees the operation and replacement of Department equipment and vehicles.
- Develops, manages and continuously improves administrative systems and process.
- Represents the Corporation in working relationships with relevant governmental and regulatory agencies.
- Performs all statutory and operational responsibilities of Fire Chief.
- Participated in various staff committee roles and provides corporate technical and strategic advice as request.

- Prepares and administers annual Departmental capital and operating budgets.
- Participates/recommends in the recruitment, selection, discipline, promotion and professional development of Department Members.
- Organizes, schedules, directs, motivates, mentors and evaluates Department Members.
- Ensures all associates and any contractors work in a manner consistent with the Occupational Health & Safety Act
- Prepares long-term capital equipment expenditures.
- Prepares and recommends specifications for the purchase of vehicles, apparatus and equipment for Council's approval.

12.3.2 Deputy Fire Chief/Compliance Coordinator/CEMC

Approximately 90 per cent of this role's time is dedicated to the duties of the Deputy Chief position, and approximately 10 per cent of this role's time is dedicated to the duties of the Compliance Coordinator/CEMC position.

Fire Operations

- Respond to emergencies and provide incident command when required.
- Responsible for the daily operations of Fire Operations, Fire Prevention, Education and Training.
- Provide advice, assistance, and direction to senior officers on operational and administrative matters.
- Participate in human resource matters including staff recruitment, staff promotional competitions personnel issues and disciplinary actions.
- Assist the Properties Department in overseeing the management of Fire Department facilities.
- Assist Fire Chief in managing and acquisition of all capital and operating budgets.
- Enforce appropriate legislations, codes, bylaws, policies, procedures and standard operating guidelines.
- Monitor and assess asset management life cycles, conditions, and valuations.
- Ensure compliance with all regulations, standards, and municipal policy and procedures.
- Formulate reports for municipal committees and Councils as may be required.
- Perform the duties of the Fire Chief, in the absence of, and as directed by the Fire Chief.

-
- Manage programs, inventory, and records of all public fire education activities, property, and equipment.
 - Serve as the management co-chair of the municipal Joint Health & Safety committee.
 - Serve as Stone Mill's CEMC.
 - Respond to emergencies as required.

Fire Prevention & Public Education

- Conduct fire and life safety inspections, pursuant to the powers prescribed in the Fire Protection and Prevention Act on all types of buildings.
- Acts as Assistant to the Fire Marshal of Ontario under the provisions of the Fire Protection and Prevention Act (FPPA).
- Address Fire Code violations and fire safety hazards within the authority of the FPPA and applicable regulations and Fire Marshal directives.
- Issue orders pursuant to the FPPA and/or prepare and swear Information's and Summonses pursuant to the Provincial Offences Act.
- Complete detailed notes, prepares written information and provide evidence in Provincial Offences Court, Fire Safety Commission, Coroner's Inquests and tribunals.
- Reviews and recommends for the approval of Fire Safety Plans.
- Manage department public fire safety education programs
- Perform public relations activities.

Fire Training

- Develops and implements training programs, manuals, lesson plans, guide sheets and department wide training schedule.
- Coordinates the delivery of fire service-related training programs.
- Meets regularly with all Training Officers and stakeholders to assist in developing and maintaining an efficient training program.
- Ensure training records are complete in records management system.
- Recommends candidates to attend both internal and external courses.
- Prepares with and facilitation of promotional exams and practical evolutions.
- Develops training notes for equipment and procedures, to ensure obligations under the Occupational Health and Safety Act are met.
- Development of both annual and multi-year training plans.

- Demonstrates a commitment to personal and professional development.

Emergency Management

- Appointed as the Community Emergency Management Coordinator (CEMC).
- Oversee the review and maintenance of mandatory minimum requirements set out in the regulations of the Emergency Management and Civil Protection Act.
- Meet and consult with Emergency Program Committee.
- Oversee the formation of a Hazard Identification & Risk Assessment (HIRA) for the municipality.
- Formulate emergency response plans and procedures.
- Formulate annually appropriate practice training exercises.
- Participate in appropriate county, provincial and federal committees.
- Develop appropriate capital and operational budget for the Emergency Management Program.

12.3.3 District Chief

- Responds to all alarms of emergency and assumes command of the scene until relieved by the Fire Chief.
- Supervises the fire ground to ensure that the officers and department members operate in a manner consistent with established procedures and accepted fire fighting methods.
- Determines causes of fires in conjunction with other officers and ensures that the necessary forms are completed.
- Advises the Fire Chief of any changes in procedures or methods necessary to maintain or increase the fire fighting efficiency.
- Advises the Fire Chief of any repairs necessary to maintain the vehicles, equipment and stations.
- Maintains discipline in the fire fighting ranks.
- Meets regularly with the officers and Fire Chief to assist in developing and maintaining a progressive and efficient training program.
- Assumes command of the fire department in the absence of the Fire Chief (if delegated).
- Ensure Fire Reports are submitted to the Chief Fire Official within three days of incident.

- Must maintain effective working relationship with Chief Fire Official and other District Chiefs.
- Any other duties as assigned by the Fire Chief.

12.3.4 Training Officers

- Collaborate with other Training Officers and Deputy Chief to develop the annual training schedule.
- Provide direction and support during training nights as outline by Training Committee and Deputy Chief.
- Assist in delivering practical and classroom training sessions.
- Assist in the recruit training program.
- Coordinate resources, equipment, and facilities for scheduled training.
- Monitor firefighter participation.

12.3.5 Captains

- Responds to all alarms of emergency and assumes command of the scene until relieved relevant to their station.
- Attend regular training.
- Assigns personnel duties at an emergency scene.
- Inspects fire scene to prevent re-ignition.
- Supervises the cleaning, checking and replacement of tools and equipment after an emergency response.
- Supervises fire crews to ensure firefighters are working safely and accordance with established procedures.
- Inspects equipment, grounds and station to insure proper order and condition.
- Reports deficiencies to District Chief.
- Maintains discipline.
- Assist training officers with training and drills.
- Maintains a record of training activities.
- Meets on a regular basis with Fire Chief, Deputy Fire Chief and District Chief to discuss overall operation.
- Any other assigned duties.

12.3.6 Lieutenants

- Responds to all alarms of emergency and assumes command of the scene until relieved relevant to their station.
- Attend regular training.
- Assigns personnel duties at an emergency scene.
- Inspects fire scene to prevent re-ignition.
- Supervises the cleaning, checking and replacement of tools and equipment after an emergency response.
- Supervises fire crews to ensure firefighters are working safely and accordance with established procedures.
- Inspects equipment, grounds and station to insure proper order and condition.
- Reports deficiencies to District Chief.
- Any other duties as assigned.

12.3.7 Station Firefighters

- Responds to all alarms of emergency and assumes command of the scene until relieved relevant to their station.
- Perform duties of a firefighter at emergency scenes.
- Attends regular training sessions.
- Cleans and maintains fire station, apparatus, and equipment.
- Assists with fire prevention program.
- Other assigned duties as required.

12.3.8 Time Management Study**Background and Structure of Study**

During the FMP development process, each of the Department's full-time staff members completed a time management study. The purpose of the studies was to obtain "snapshots" of the tasks completed by each of the full-time positions, as well as the time commitments required to complete those tasks.

The study tracked each full-time staff member's duties over a defined period, in accordance with their respective job descriptions.

Results of Time Management Study

Time Management Study – Fire Chief

The Fire Chief conducted a time management study over a seven-week period during December 2025 and January 2026. The study reflected the Fire Chief's regular work schedule of ten hours per day, Monday through Thursday.

Figure 8 illustrates the amount of time the Fire Chief/Public Works Manager spends on different tasks over a seven-week period.

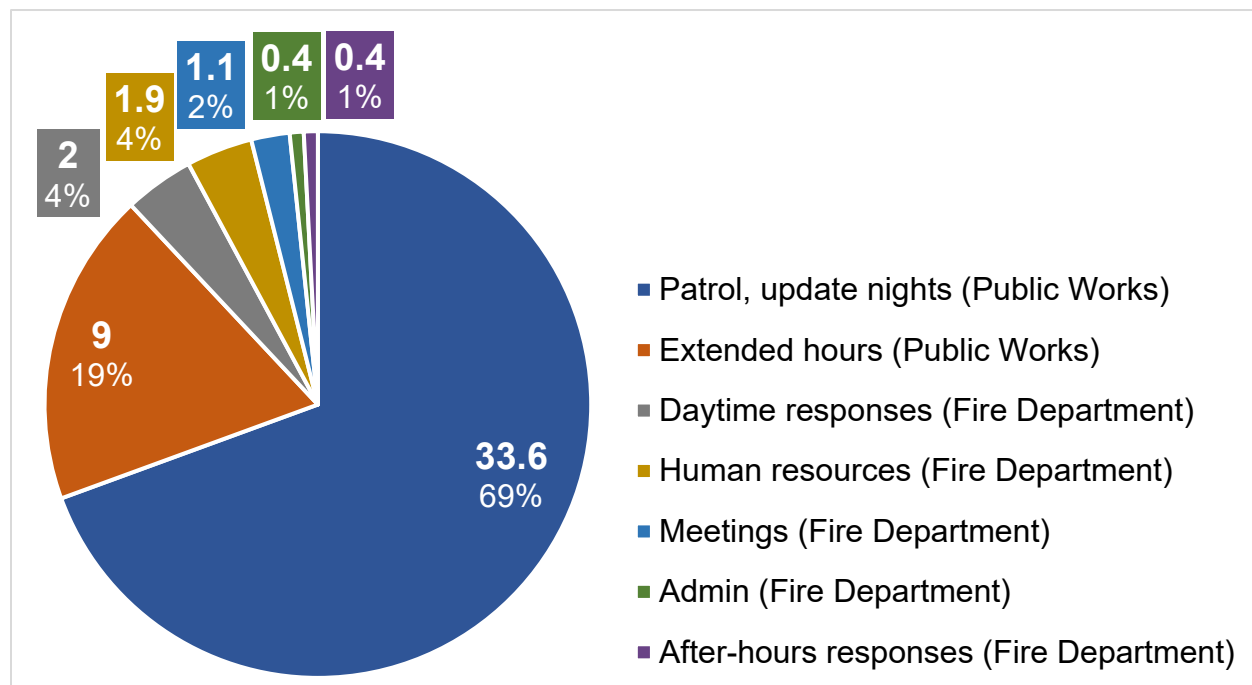


Figure 8. Hours per task in an average week, Fire Chief.

During this period, the Fire Chief/Public Works Manager recorded a total of 339 tracked hours. Of this time, only 41 hours were dedicated to responsibilities related to the Department, representing 12 per cent of the total. The remaining 298 hours were spent on responsibilities for the Public Works Department, accounting for 88 per cent of the tracked time. On average, the Fire Chief spends more time on operational duties or daily tasks than on strategic responsibilities.

Time Management Study – Deputy Fire Chief

The Deputy Fire Chief conducted a time management study over a seven-week period, during December 2025 and January 2026. The study reflected the Deputy Fire Chief's regular work schedule of nine hours per day from Monday through Thursday and four hours on Friday.

Figure 9 illustrates the amount of time the Deputy Fire Chief spends on different tasks during an average week.

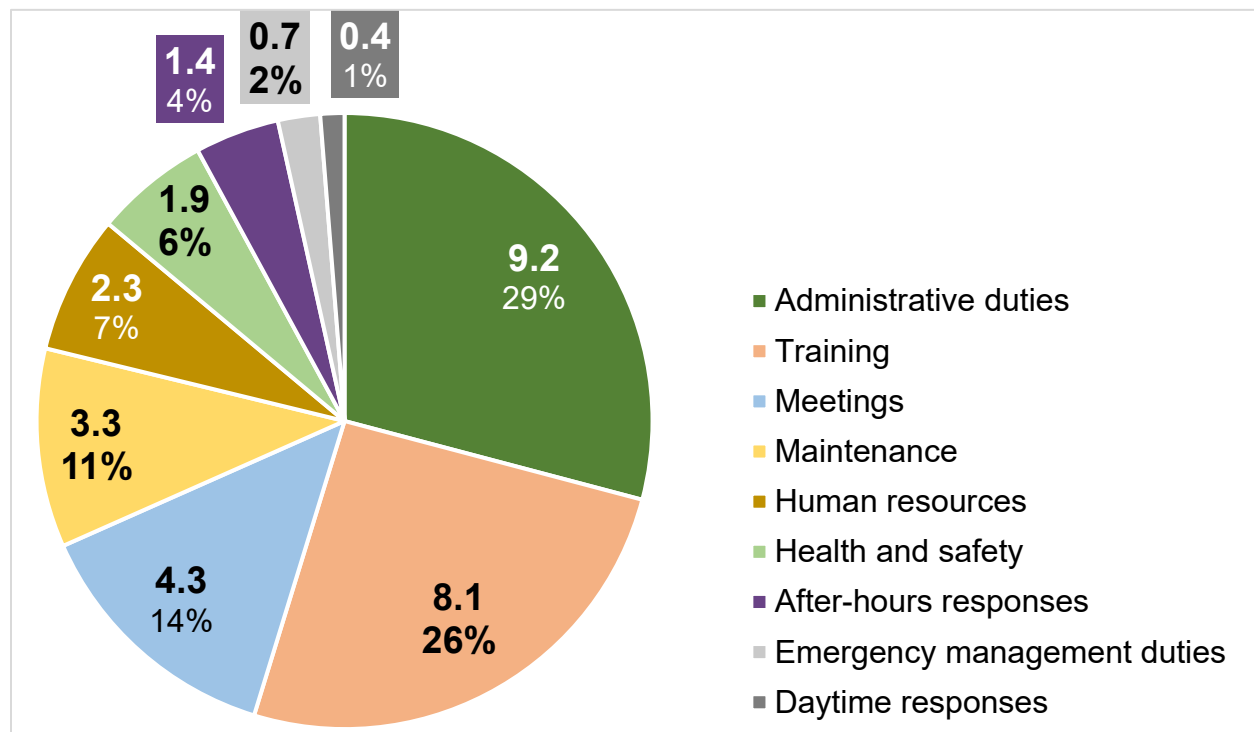


Figure 9. Hours per task in an average week, Deputy Fire Chief.

During the seven-week period, the Deputy Fire Chief/Compliance Coordinator recorded a total of 221 tracked hours. On a weekly basis, an average of 9.2 hours was devoted to administrative fire responsibilities, 8.1 hours to training, and 4.3 hours to meetings. Combined, these three areas account for approximately 69 per cent of the Deputy Chief's available time, significantly limiting capacity for strategic responsibilities.

Summary of Findings

The results of the time management study indicate that the Department's administrative staff is primarily focused on the day-to-day operational tasks necessary to maintain departmental functionality and respond to immediate needs.

The Department's administrative staff focus on completing the following tasks:

- Coordinate emergency management efforts.
- Ensure health and safety compliance.
- Provide support to staff members.
- Complete administrative processing.

- Conduct equipment maintenance.
- Handle calls.

Conversely, the administrative personnel spend little time on strategic planning initiatives essential to the Department's long-term sustainability and growth.

Strategic planning initiatives include the following tasks:

- Analyze operational workload data.
- Develop future training programs and succession plans.
- Evaluate health and safety trends for proactive risk reduction (including fire prevention inspections and public education).
- Plan apparatus replacement and facility upgrades.
- Implement community risk reduction strategies.
- Forecast budgets and allocate resources based on workload analysis.
- Modernize policies (such as cancer prevention protocols and mental health initiatives).

The strategic tasks listed above are proactive and critical to improving the Department's efficiency, safety, and service delivery over time.

12.4 Job Descriptions

Context

Job descriptions should clearly define the roles, responsibilities, and expectations of each position in an organization. In the fire service, detailed job descriptions can help a fire department accomplish the following objectives:

- Ensure that all personnel understand the duties associated with their role.
- Ensure that all personnel understand how their role fits within the department's structure, supporting both individual and team effectiveness.
- Ensure that all personnel understand their level of accountability.
- Ensure consistency between roles.
- Increase operational efficiency, reduce confusion, and improve safety.
- Provide a foundation for recruitment, training, performance evaluation, and succession planning.
- Support compliance with legislation (such as the OFM and the OHSA).

Findings

The Department currently has job descriptions in place for the positions of firefighter, lieutenant, captain, and district chief. The job descriptions outline the roles and responsibilities associated with each position, providing a clear framework for operational and leadership duties within the organization.

However, no formal process has been identified to regularly review and update the job descriptions to ensure they align with evolving NFPA standards, best practices, and organizational needs.

12.5 Succession Planning

Context

It is essential for volunteer fire departments to conduct succession planning in order to maintain leadership continuity, operational readiness, and long-term sustainability.

Succession planning involves identifying and developing personnel who have the potential to fill leadership roles when current leaders retire or step down. Fire departments may choose to develop their personnel through mentorship programs, structured training, and acting officer opportunities. It is also useful for a fire department to establish and communicate promotional policies so that its members can understand the ways they can advance in their careers.

Key components of a well-structured succession plan are as follows:

- Identify key roles in the fire department.
- Outline the skills and qualifications required for each key role in the fire department.
- Provide qualified personnel with the training and experience they need to step into key roles when required.
- Develop and maintain a training program.
- Develop and maintain a fire prevention program.
- Complete administrative duties.

There are many reasons why it is important to complete succession planning. For example, if a specific member of the fire department is absent (such as someone in a leadership role), the completion of important tasks may be delayed or disrupted. This situation may lead to a single-point-of-failure scenario if there are no additional personnel who are trained to perform those tasks. In some cases, the inability to complete certain tasks may hinder operational effectiveness and firefighter safety.

The OFM emphasizes the importance of succession planning in the fire service, especially for volunteer departments, where turnover can be more frequent, and leadership development opportunities may be limited.

Findings

The Department does not have any formal succession plans in place.

12.6 Inter-Municipal Collaboration

Context

Strengthening relationships between neighbouring fire departments helps increase operational effectiveness. These kinds of relationships can also help protect the safety of firefighters and community members during large-scale or multi-jurisdictional emergencies.

As a best practice, fire departments in neighbouring municipalities should encourage open dialogue between their teams, conduct shared training, and align their response protocols. Taking these actions can greatly enhance cooperation and increase the overall resilience of the region.

Findings

The Department participates in intermunicipal collaboration initiatives, including quarterly mutual aid chief meetings and Ontario Association of Fire Chiefs zone meetings. Additional discussions are held as needed to address operational or strategic matters.

At the county level, the Department's Deputy Fire Chief participates in a monthly situation table with representatives from the OPP, EMS, and mental health organizations. The purpose of the meetings is to coordinate responses and share resources for community-specific challenges.

Additionally, Lennox and Addington County maintains an Emergency Services Advisory Committee focused on emergency management.

12.7 Comparisons

12.7.1 Service Delivery Model Comparison

Context

Fire departments across Canada operate under a variety of service delivery models. Each service model should be tailored to the needs, size, and resources of a community.

Table 28 summarizes three different service delivery options.

Table 28. Service delivery options for fire departments.

Service Delivery Option	Scope
Full-time fire department	Full-time fire departments are common in larger communities. In these departments, on-duty staff are positioned at the fire station, and they respond to emergency calls as needed.
Volunteer fire department	Volunteer fire departments are common in smaller communities (such as rural communities). These departments rely on trained on-call firefighters who respond to emergencies as required. Often, the on-call personnel are community members with other jobs and personal commitments they must balance alongside their fire service duties. NFPA 1720 defines a volunteer fire department as a fire department in which volunteer personnel make up 85 per cent of the staff.
Composite fire department	Composite fire departments have both full-time staff and volunteer or part-time firefighters to maintain coverage and operational flexibility. NFPA 1720 defines a composite fire department as a fire department in which neither career firefighters nor volunteers make up 85 per cent of the department's staff.

Each service model has advantages and challenges, which is why a municipality should strive to establish the structure that best aligns with its community's risks (as identified in its CRA) and service expectations.

It is worth noting that most fire departments are owned and managed by the municipality they serve. However, some fire departments may also have fire protection agreements with other nearby communities.

Findings

More than 85 per cent of the Department's staff members are volunteers. As mentioned in section 12.2.1, the Department also has full-time staff members who support the organization's volunteers.³⁸

³⁸ For more information about the Department's service delivery model, see section 11 of this FMP.

According to the definition provided in NFPA 1720, the Department is classified as a volunteer fire department.

12.7.2 Municipal Comparison

Context

Comparing a fire department's operating expenses to those of the departments in similar municipalities is a valuable exercise. The process can help identify benchmarks, evaluate cost-effectiveness, and ensure responsible fiscal management.

Municipal leaders and fire chiefs can also assess whether their current spending aligns with service levels and community risks. This information can highlight areas where efficiencies may be gained, as well as areas where investments may be needed.

Findings

Table 29 summarizes recent available data about population numbers and operating expenses for Stone Mills and several comparable municipalities.

Table 29. Municipal funding comparison.

Municipality	2024 Total Expenses ³⁹	2021 Population ⁴⁰	Total Expenses vs. Population ⁴¹
Township of Stone Mills	\$992,506	7,826	\$126.82
Township of Lanark Highlands	\$961,724	5,128	\$187.54
Township of Alnwick/Haldimand	\$1,538,746	7,473	\$205.91
Township of Augusta	\$1,070,948	7,400	\$144.72
Town of Carleton Place	\$1,472,011	9,400	\$156.60
Township of Edwardsburgh Cardinal	\$855,009	7,100	\$120.42
Town of Arnprior	\$1,251,198	9,649	\$129.67
Township of Elizabethtown-Kitley	\$1,279,305	9,200	\$139.05
Town of Perth	\$961,546	6,400	\$150.24
Average	\$1,153,666	7,731	\$151.22

³⁹ Ministry of Municipal Affairs and Housing. "Year 2024 - Financial Information Return."

⁴⁰ 2021 Statistics Canada census.

⁴¹ Rounded to the nearest cent.

Figure 10 illustrates the total expenses per capita of the municipal fire departments listed above.

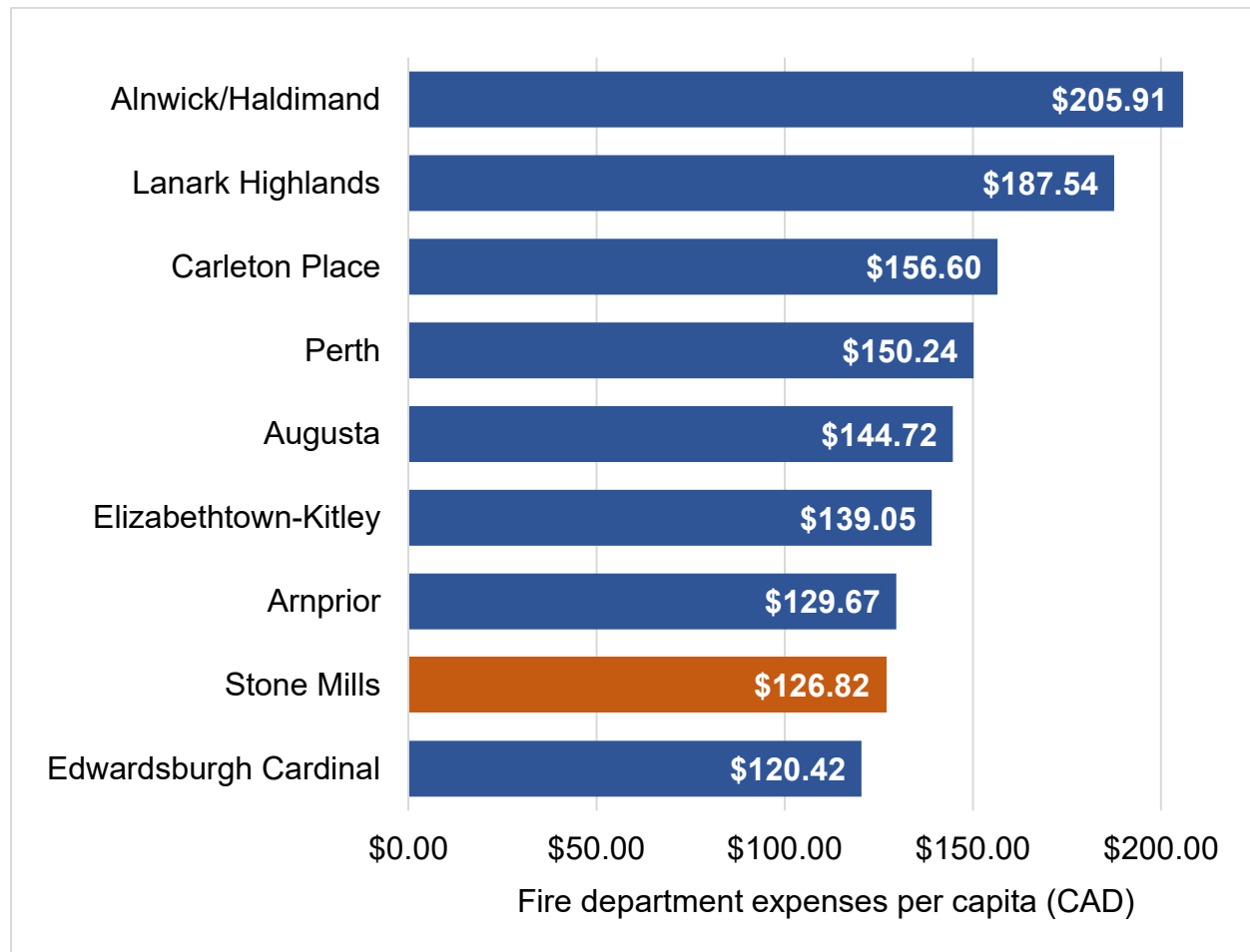


Figure 10. Municipal comparison of total fire department expenses per capita, 2024.

As shown above, Alnwick/Haldimand had the highest expenses per capita at \$205.91, and Edwardsburgh Cardinal had the lowest at \$120.42. The average expenses per capita among the comparators were \$151.22, with the median being \$144.72.

The Department's total expenses per capita were \$126.82 in 2024. The Department had the eighth-lowest total expenses per capita among the nine fire departments compared. The Department's expenses per capita are \$6.40 above the lowest of the comparators and \$79.09 below the highest.

Table 30 compares fire department staffing considerations and community characteristics for Stone Mills and several comparable municipalities.

Table 30. Fire department staffing level comparison.

Staffing Consideration	Stone Mills	Lanark Highlands	Alnwick/Haldimand	Augusta	Edwardsburgh Cardinal	Arnprior	Elizabethtown-Kitley	Perth
Population	7,826	5,737	7,473	7,386	7,505	9,629	9,545	6,469
Area (km ²)	693.71	1,031.52	398.25	313.77	309.91	13.0	555.96	12.21
Population density (per km ²)	11.3	5.6	18.8	23.5	24.2	738.5	17.2	529.80
Number of fire stations	4	4	3	2	2	1	3	1
Fire chief (full-time)	0.3	1	0.5	1	1	1	1	1
Deputy chief (full-time)	0.9	0	1	0	0	1	0.4	1
Fire prevention (full-time)	0	0	0	0.5	0	1	0.3	0
Training (full-time)	0	0	0	0	0	0	0.3	0
Fire coordinator	0	0	0	0.5	0	0	0	0
Total full-time staff	1.2	1	1.5	2	1	3	2	2

The data in the table above highlight significant variations among the municipalities being compared. Rural municipalities like Lanark Highlands have large areas and low population density, with minimal full-time staff employed at their fire departments. Conversely, more urbanized areas like Arnprior and Perth have high population density but fewer stations and more full-time personnel.

Overall, the comparison emphasizes differences in resource allocation and staffing structures based on community size, geography, and density.

12.8 Roadmap for Improvement

Staffing – Leadership and Stability

The Department's staffing considerations should begin with the establishment of strong, dedicated leadership. Currently, the Fire Chief position is shared between Public Works (70 per cent of the time) and Fire Services (30 per cent of the time). This division in the Fire Chief's duties limits the amount of time that the role can devote to fire department-related tasks. This structure makes it challenging for the role to fully support the Department's growing demands for oversight, strategic planning, and day-to-day operational leadership.

Transitioning the Fire Chief role to a full-time position is an important step toward enhancing the Department's overall effectiveness and efficiency. A full-time Fire Chief would provide dedicated leadership focused on regulatory compliance, risk management, operational oversight, and long-term planning. Providing the Fire Chief with additional capacity to focus on his responsibilities would support clearer direction, timely decision-making, and improved coordination across all divisions. Overall, a full-time Fire Chief would strengthen the Department's ability to meet community needs.

Making the Fire Chief position a full-time role would also help ensure that the Deputy Fire Chief has the time needed to focus on their responsibilities. With the demands of the Fire Chief's position growing, a full-time structure would allow core leadership duties to be managed more effectively, while enabling the Deputy Fire Chief to concentrate fully on their own operational and administrative functions. This adjustment is intended to support—not replace—the strong work already being done by both positions, ensuring that each role has the capacity to operate within its intended scope.

By increasing the Fire Chief and Deputy Fire Chief's capacity to perform their respective duties, the Department can streamline workflows, reduce pressure points created by competing priorities, and strengthen overall leadership capacity. This enhanced staffing structure would promote more efficient use of staff time, provide better support to firefighters, and contribute to a more responsive and resilient organization.

Once the Department's dedicated leadership capacity is in place, it should undertake a comprehensive staffing analysis. The analysis should assess coverage levels, workload distribution, succession planning needs, and alignment with NFPA standards and municipal service expectations. Identifying current gaps and anticipating future requirements will allow the Department to develop a phased staffing plan that supports operational readiness, volunteer sustainability, and long-term departmental growth.

Future Staffing Enhancements

In order to ensure the Department's long-term success, it must focus on building staffing capacity and improving service delivery. As noted in section 5 of this FMP, there are gaps between the level of service mandated by the E&R bylaw and the level of service the Department currently delivers. In addition, section 9 notes that the Department lacks consistency regarding its fire prevention inspections, as it currently provides the minimum number of inspections.

A key component of the Department's future success is the addition of a dedicated Training/Fire Prevention Officer. This position will play a vital role in enhancing firefighter competency, ensuring compliance with NFPA standards, and supporting succession planning. By prioritizing training for leadership personnel, the Department can strengthen operational readiness, improve safety, and align service delivery with legislative and community expectations. The Training/Fire Prevention Officer will also assume responsibility for conducting fire inspections and delivering public education initiatives. Overall, the role will strengthen the Department's community risk reduction efforts and help it meet regulatory requirements.

The Training/Fire Prevention Officer will also provide the Department with an extra daytime responder, enhancing the effectiveness of emergency response during regular working hours.

Succession Planning

Succession planning helps a fire department ensure it has strategies and personnel in place to meet its long-term goals. However, the Department does not currently have a formal succession plan.

Going forward, the Department should establish a formal succession plan in order to ensure leadership continuity. The plan should include measures for preparing qualified personnel to step into key roles without disrupting operations.

Inter-Municipal Collaboration

Continuing to strengthen relationships with neighbouring municipalities, departments, and organizations will enable the Department to improve operational effectiveness and enhance safety during large-scale or multi-jurisdictional emergencies.

Furthermore, engaging with external and professional organizations will enable the Department to stay informed about best practices, emerging trends, and networking opportunities. Participating in a network of professional organizations will ensure the Department remains informed, connected, and aligned with evolving standards and innovations in the fire service.

12.9 Recommendations

Recommendations regarding the fire department structure in Stone Mills are as follows:

- 12-1. Stone Mills should transition the Fire Chief position to a full-time role, eliminating the current split between Public Works Manager and Fire Chief.
- 12-2. Stone Mills should continue monitoring applicable indicators in order to determine whether there is a need for a dedicated Training/Fire Prevention Officer as part of the Stone Mills Fire Department's long-term strategy.
- 12-3. The Stone Mills Fire Department should continue making it a priority to strengthen its relationships with neighbouring fire departments, organizations, and professional associations.

13.0 Fire Stations and Related Facilities

13.1 Overview

A fire station assessment is conducted in order to determine whether a fire station is likely to support its fire department's current and anticipated operations.

There are several key factors that all fire station assessments should consider, such as:

- size of the facility
- building features
- age and condition of the facility
- building capacity
- resources to support various administrative operations

13.2 Fire Station Facilities in the Township of Stone Mills

13.2.1 Size and Configuration of a Fire Station

Context

In order to provide effective fire protection services to the community, a fire department requires a fire station with appropriate space, functionality, and accessibility features. The following standards are related to the configuration of fire stations:

- NFPA 1901 emphasizes the importance of design considerations that accommodate vehicle sizes and operational needs.
- NFPA 1500 emphasizes that station safety and layout are key components of firefighter health and wellness.

A modern fire station should have the capacity to furnish the following spaces:

- administrative areas
- training rooms
- storage areas
- exercise room (to support the physical aspects of firefighter wellness)
- kitchen facilities
- common room
- parking area
- apparatus floor

Each of the spaces listed above supports specific operational functions. For clarification purposes, Table 31 explains the importance of some of these spaces.

Table 31. Key areas in fire stations.

Type of Area	Importance
Common area	A well-designed common area can help support firefighter retention and mental well-being. These spaces can be used as welcoming environments for firefighters to reduce burnout and make social connections.
Decontamination and cleaning areas	Firefighters are exposed to various hazardous substances (such as carcinogens, biological agents, and toxic residues) during emergency responses. Without proper decontamination protocols and dedicated cleaning facilities, these contaminants can be transferred to living quarters, vehicles, and personal gear. This transference increases the potential for long-term health risks. Guidelines related to infection control are outlined in NFPA 1581, <i>Standard on Fire Department Infection Control Program</i>. This information explains the need for designated areas to clean/store contaminated gear separately from clean zones. The Firefighter Guidance Notes also emphasize the need to minimize occupational illnesses and ensure compliance with health and safety regulations. Having proper decontamination spaces helps protect firefighters from chronic exposure, and it demonstrates a fire department's commitment to professional standards and personnel well-being.
Dedicated training space	A training area (or facility) is a safe space that enables a fire department to provide hands-on training that simulates complex scenarios, such as structural fires, vehicle extrication incidents, and hazardous material incidents. Having a dedicated training space also aligns with the OFM's recommendations related to firefighter certifications and ongoing skills maintenance. These recommendations are designed to help fire departments meet provincial standards while enhancing teamwork, confidence, and operational readiness.

Findings

This subsection contains information regarding the condition of the Department's stations.

Some of the information in this subsection is sourced from the most recent building condition assessments conducted at the Department's fire stations. The assessments were conducted by McIntosh Perry Consulting Engineers Ltd. in March 2022. As part of each assessment, the firm determined a Facility Condition Index ("**FCI**") for the station being analyzed.

An FCI is a benchmark that compares a facility's repair needs to its replacement value and applicable industry standards. Table 32 shows the various FCI ratings that are possible.

Table 32. Facility Condition Index ratings.

Facility Condition Index	Category
0% to 4.9%	Excellent
5.0% to 9.9%	Good
10% to 15%	Fair
15% to 30%	Poor
Over 30%	Critical

Station 1 – Yarker

Station 1 – Yarker is located at 9 Mill Street. The station was originally constructed in 1967, with an addition completed in 1982. The two-storey facility features three apparatus bays and houses firefighter PPE, equipment, three fire apparatus, and a rehab trailer.

Figure 11 shows the exterior of Station 1 – Yarker.



Figure 11. Station 1 – Yarker.

In its 2022 building condition assessment for Station 1 – Yarker, McIntosh Perry determined that the facility would have an FCI of 12.3 per cent by 2025, placing the station in the “Fair” category.

The condition assessment also noted that Station 1– Yarker is not designed for barrier-free accessibility and recommended that the Department conduct a detailed compliance assessment to determine whether the facility aligns with current legislation. The report also noted that the Gross Floor Area (“**GFA**”) of the current facility is 382 square metres.

While Station 1 – Yarker was originally designed to meet the community’s needs, increasing operational demands have created space and functionality challenges. The building lacks adequate room for personnel, vehicles, and specialized equipment. Currently, bunker gear is stored on the apparatus floor, raising concerns regarding contamination and safety. Limited space also impacts NFPA compliance and the Department’s readiness.

Additional issues at Station 1 – Yarker include:

- Some pieces of infrastructure and equipment are aging.
 - For instance, the SCBA compressor is nearing the end of its expected life.
- There are no CO detectors in the station.

- Office space is minimal.
- Although the station has a kitchen and separate male/female washrooms, it lacks showers for proper decontamination.
- Storage is minimal, and there are no lockers for personal belongings.
- Parking is limited, though a public lot is nearby.
- The apparatus bay lacks floor drains. As a result, fire apparatus must be washed outside, which is problematic during adverse weather.

Station 2 – Enterprise

Station 2 – Enterprise is located at 2861 County Road 14. The facility was constructed in 2003 and is a single-storey low-bay building. The station has three apparatus bays and houses four pieces of fire apparatus. Firefighter PPE, equipment, and a UTV and trailer are also stored at Station 2 – Enterprise.

Figure 12 shows the exterior of Station 2 – Enterprise.



Figure 12. Station 2 – Enterprise.

In its 2022 building condition assessment for Station 2 – Enterprise, McIntosh Perry determined that the facility would have an FCI of 5.2 per cent by 2025, placing the station in the “Good” category.

The condition assessment also noted that Station 2 – Enterprise was not designed to meet the previous legislative requirement for barrier-free use. At that time, it was determined that a detailed assessment was not required. The report also noted that the GFA of the current facility is 494 square metres.

In terms of design, Station 2 – Enterprise was configured to match the size and needs of the community. The main building components were appropriate for the staffing levels and equipment used at the time of construction, but since that time, the demands placed on the Department have increased. Due to changing demands, there is now a need for additional space to accommodate personnel, vehicles, and specialized equipment. Although the station has dedicated areas for specific functions, the building’s layout and infrastructure may pose challenges for the Department’s current and future operations.

While Station 2 – Enterprise was designed to meet the Department’s operational needs at the time of construction, service demands and equipment requirements have evolved, and the facility currently has space limitations. As such, as of this FMP, the Department is storing its bunker gear directly on the apparatus floor, which raises concerns about contamination control and firefighter safety. Maintaining preparedness and NFPA-related certification is also difficult due to a lack of space.

Additional features at Station 2 – Enterprise include:

- The station has sufficient office space to meet its current needs.
- The station also includes a kitchen.
- The facility has showers available for both male and female firefighters.
- The station has a designated storage room. However, there are no lockers for firefighters’ personal belongings.
- Parking at the station is sufficient for firefighters.
- The station has CO detectors that are directly connected to a fan and trigger at elevated levels.

Station 3 – Newburgh

Station 3 – Newburgh is located at 12 Factory Street. The station was constructed in 1976 as a single-storey, low-bay building with five apparatus bays. The facility houses firefighter PPE, equipment, and four pieces of fire apparatus.

Figure 13 shows the exterior of Station 3 – Newburgh.



Figure 13. Station 3 – Newburgh.

In its 2022 building condition assessment for Station 3 – Newburgh, McIntosh Perry determined that the facility would have an FCI of 4.9 per cent by 2025, placing the station in the “Excellent” category.

The condition assessment noted that the building is not designed for barrier-free accessibility and recommended that the Department conduct a detailed compliance assessment. The report also noted that the GFA of the current facility is 390 square metres.

While Station 3 – Newburgh was originally designed to meet community needs, it now faces limitations. The station provides adequate space for apparatus and personnel but lacks sufficient room for administrative functions. Office space is minimal, and although the station includes a kitchen, it is limited to a microwave with no stove.

Other operational concerns at Station 3 – Newburgh include:

- The station lacks CO detectors.
- The station lacks lockers to store personal belongings.
- The station has only one washroom located in the training area.

- The station lacks shower facilities, limiting firefighters' ability to properly decontaminate after incidents.
- Parking is insufficient for firefighters, although additional space is available across the street at the pump house.

Despite the limitations of Station 3 – Newburgh, the Department has ensured that contamination control measures are in place at the facility. For instance, bunker gear is not stored on the apparatus floor. In addition, the station has an extractor and homemade dryers for cleaning gear.

Station 4 – Tamworth

Station 4 – Tamworth is located at 684 County Road 4 West. The station was constructed in 1995 with an addition completed in 2005. The single-storey, low-bay facility includes four apparatus bays and houses firefighter PPE, equipment, and four fire apparatus.

Figure 14 shows the exterior of Station 4 – Tamworth.



Figure 14. Station 4 – Tamworth.

In its 2022 building condition assessment for Station 4 – Tamworth, McIntosh Perry determined that the facility would have an FCI of 5.6 per cent by 2025, placing the station in the “Good” category.

The condition assessment found that the building meets previous barrier-free design requirements and that no detailed assessment was required. The report also noted that the GFA of the current facility is 580 square metres.

While Station 4 – Tamworth was designed to meet operational needs at the time of its construction, evolving service demands have introduced space challenges. The building accommodates apparatus and personnel but lacks adequate space for gear storage and administrative functions. Currently, bunker gear is stored on the apparatus floor, raising concerns about contamination. In addition, storing bunker gear on the apparatus floor does not align with NFPA standards.

Features at Station 4 – Tamworth include:

- extractor and homemade dryers for gear cleaning.
- used SCBA compressor (installed in 2024)
- kitchen
- showers for both male and female firefighters
- storage room
- sufficient parking for firefighters

Station 4 – Tamworth lacks the following features:

- CO detectors
- sufficient office space
- lockers for personal belongings

13.2.2 Key Building Features in Older Fire Stations

Context

The age of a fire station is an important consideration. Often, older fire stations are unable to undergo significant renovations or accommodate new equipment, such as updated health and safety systems.

In many municipalities, budgeting concerns have impacted the ability to keep the systems in older buildings up to date. As a result, it is common for older fire stations to have poor or failing lighting and HVAC systems. The design of older buildings may also fail to meet current legislative requirements.

Currently, there is no Canadian report or standard that addresses the features of older fire stations. However, in 2024, the NFPA published a report that included information about the renovation needs of U.S. fire service providers. Since many Canadian fire departments have chosen to follow NFPA standards, this report can serve as a useful reference.

The NFPA report discussed various studies that were conducted to assess fire stations that are over 40 years old. An excerpt from the report reads as follows:

There is no national guidance for the maximum age of a fire station. However, older fire stations do not have the modern facilities that are most beneficial for fire stations, such as decontamination areas with laundry facilities and gear storage areas that are separate and apart from living areas, exhaust capture systems, and private or separate facilities for male and female firefighters. Old fire stations are also more likely to have problems that cannot be addressed through repair and maintenance alone.⁴²

The NFPA report goes on to identify three key features that are commonly lacking in fire stations that are over 40 years old. Typically, an older fire station will lack the following features:

- backup power
- exhaust emission control
- private or separate facilities for men and women

As noted above, many older fire stations were not built to include separate facilities for both men and women. This is because the facilities were constructed before female firefighters were common in the fire service. In response to this lack of private facilities, the NFPA made the following observation:

Many fire departments are recognizing a need to retrofit fire stations to have either private gender-neutral facilities or separate facilities for men and women. The current trend in fire station design is to have gender-neutral spaces to provide all firefighters with privacy while on the job.⁴³

In addition, over the last 50 years, the average size of a fire apparatus has increased significantly. As a result, fire departments need more apparatus floor space than ever before. Apparatus bay doors must also be wide and high enough to accommodate the height of a modern fire apparatus.

Findings

All of the Department's stations are equipped with backup power systems. The stations use propane-fueled generators and Generac transfer switches to ensure continuous operation during power outages. The backup power systems provide reliable emergency power for critical systems, maintaining operational readiness and safety across all the Department's facilities.

⁴² Messerschmidt, "Renovation Needs of the US Fire Service."

⁴³ Ibid.

However, the Department's fire stations were designed to match the community's size and needs at the time of construction. The main buildings were appropriate for the staffing levels and equipment at the time of their construction, but the demands placed on the Department have increased.

13.3 Training Facilities

Context

Various sections of this FMP have discussed the importance of training. Specifically, an ongoing training program can help firefighters learn and maintain the skills needed to provide safe and effective services.

In recent years, several training courses and certifications have become mandatory for fire service personnel (as per O. Reg. 343/22).⁴⁴ Due to these certification requirements, fire departments must provide their personnel with consistent opportunities to complete practical and hands-on training activities. The need to complete training initiatives on an ongoing basis has also made it very important to provide firefighters with an adequate training area.

Some fire departments have a dedicated training facility. This type of facility provides a controlled environment for several types of training, such as:

- live-fire exercises
- technical rescue training
- hazardous materials response training
- incident command simulations

One benefit of a training facility is that it can make it easier for a fire department to align its training with NFPA standards, legislation, and other guidelines. Training facilities can also support a fire department's recruitment and succession planning process. With a dedicated facility, it is easier for fire departments to provide their recruits and potential leadership personnel with structured, hands-on instruction.

Although there are many benefits to having a dedicated training facility, numerous municipalities find it challenging to establish adequate facilities for their fire departments due to the associated costs.

⁴⁴ For more information about the training requirements related to O. Reg. 343/22, see section 10.3 of this FMP.

Findings

Training Areas

The Department's training facilities at each station currently meet operational and certification needs. The stations' training spaces and resources support ongoing firefighter development without the immediate need for major upgrades.

The Department uses additional training areas to conduct specialized training. One of these training areas is a house owned by Stone Mills (shown in Figure 15). The Department uses this house to conduct search-and-rescue training evolutions and entanglement training.



Figure 15. The Stone Mills Fire Department's training house.

The Department also has an outdoor training site (shown in Figure 16). This site is equipped for hands-on firefighter skill development, and it contains vehicles for extrication training, areas designated for live fire burns, and various types of trailers to familiarize crews with different configurations and hazards.



Figure 16. The Stone Mills Fire Department's outdoor training site.

Overall, these specialized training sites allow the Department's firefighters to practise realistic scenarios for technical rescue, fire suppression, and tactical operations, ensuring firefighters gain practical experience in diverse emergency situations.

Training Props

The Department's firefighters have made training props (shown in Figure 17) to simulate a firefighter's escape from a second floor and assist in ventilation training.



Figure 17. The Stone Mills Fire Department's training props.

13.4 Roadmap for Improvement

Replacement Facility for Station 1 – Yarker

As identified, Station 1 – Yarker lacks sufficient space to meet the Department's current and future operational needs. This issue is largely due to the facility's age and design. The building was constructed in 1967 with an addition and renovations in 1982, and it was designed for the apparatus of that era. Although the station has fulfilled its intended purpose, it is now over 50 years old and approaching the end of its life cycle. In addition, the station lacks the functionality needed to support the Department and the community effectively.

Going forward, the Department should develop a plan to replace Station 1 – Yarker with a new fire station.

The new facility should meet the standards of a modern volunteer fire station, and it should have the following features:

- a design that meets current operational requirements and health and safety standards
- at least three apparatus bays (with sufficient clearance)
- dedicated gear storage and decontamination areas

- training space
- administration area
- firefighter wellness areas

The features listed above will help ensure operational efficiency, firefighter safety, and compliance with best practices. A typical volunteer fire station that includes these features should have a footprint of approximately 850 to 950 square meters. (This footprint includes apparatus bays, support areas, training rooms, offices, and mechanical spaces.)

Ongoing Maintenance and Repair Program

In order to ensure the longevity and functionality of Station 2 – Enterprise, Station 3 – Newburgh, and Station 4 – Tamworth, the municipality must implement an ongoing maintenance and repair program for all three stations.

Regular inspections, timely repairs, and proactive upgrades are essential to preserve building integrity, meet safety standards, and extend the life expectancy of each station. This approach reduces costly emergency repairs and supports operational readiness for the Department.

Training Facilities

In order to enhance firefighter awareness and operational readiness, the municipality should continue to invest in the Department's training facility and associated training areas. Ongoing investment in these resources ensures that firefighters have access to realistic, hands-on training environments that meet current standards and evolving service demands. This commitment can increase firefighter safety, improve skill development, and promote compliance with NFPA standards and provincial requirements.

13.5 Recommendations

Recommendations regarding the fire stations and related facilities in Stone Mills are as follows:

- 13-1. Stone Mills should develop a plan to replace Station 1 – Yarker with a new fire station.
- 13-2. Council should allocate operating and capital funding to the Stone Mills Fire Department through the annual budget process in order to ensure the fire department has money to maintain its fire stations over the course of each facility's anticipated life cycle.

- 13-3. Council should continue to support and invest in the Stone Mills Fire Department's training program and associated training areas.

14.0 Water Supply

14.1 Overview

In the context of fire suppression, a water supply can be a municipal water supply (which is found in hydrant-protected areas) or a rural water supply (which is found in areas without fire hydrants).

Fire departments must remain aware of which water supplies are available in their communities, as a reliable water supply is essential for delivering effective fire suppression services.

14.2 Hydrant-Protected Areas

14.2.1 Municipal Fire Hydrants

Context

In hydrant-protected areas, municipal water and distribution systems provide the water supply that firefighters use for emergency responses. These systems must have the capacity to provide firefighters with a water supply that has a sufficient flow for firefighting operations, and they must be able to support the local distribution system (including fire hydrants).

Municipalities are responsible for fire pump flow testing, hydrant testing, repairs, and replacements. In addition, a municipality must ensure that its fire hydrants adhere to the following standards:

- NFPA 291, *Recommended Practice for Water Flow Testing and Marking of Hydrants*
- OFC, section 6.6.3.5 (regarding fire pump flow tests)
- OFC, section 6.6.4 to 6.6.6 (regarding hydrant condition, inspection, and markings)

Findings

As of this FMP, Stone Mills has no municipal fire hydrants.

14.2.2 Private Hydrants

Context

The following process is applicable for properties with private hydrants:

1. The property's owner or developer must provide hydrant installation and water flow certifications to the Chief Fire Official.
2. The Chief Fire Official must approve the flow certifications before the owner or developer is allowed to occupy the property.
3. After receiving approval to occupy their property, the developer or owner must ensure they test their on-site hydrants annually to verify they remain operational and comply with the OFC.

In contrast to the NFPA colour-coding scheme (discussed above), private hydrants are usually painted red to distinguish them from municipal hydrants.

Figure 18 shows an example of a private fire hydrant.



Figure 18. Example of a private fire hydrant.

Findings

According to the Department's records, the only private hydrants in Stone Mills are located at the Strathcona Paper factory. These hydrants can be used upon request.

14.3 Non-Hydrant-Protected Areas

Context

Section 3.2.5.7 (1) of the OBC states, “An adequate water supply for firefighting shall be provided for every building.”

When fire departments respond to emergencies in areas without fire hydrants, they must use an alternate water source to provide fire suppression services. Dry hydrants and tankers are both common alternative water sources that fire departments can use to meet the requirements of the OBC.

Dry hydrants provide fire departments with a water supply culled from rivers, lakes, ponds, or storage tanks. Many fire departments that respond to calls in non-hydrant-protected areas rely on dry hydrants.

A tanker is a type of fire apparatus that can transport water to non-hydrant-protected areas.

Findings

The Department uses dry hydrants, natural water sources (such as lakes, ponds, and rivers), and one cistern to provide suppression services for the municipality. The Department also has a tanker shuttle that is used to deliver water to emergency scenes.

14.4 Superior Tanker Shuttle Accreditation

Context

The Superior Tanker Shuttle Accreditation program is offered by FUS. It is available for fire departments that meet the following criteria:

- The fire department can maintain a minimum water supply of 200 gallons/minute for a two-hour duration for residential properties up to 8 km away from a fire station.
- The fire department can maintain a minimum water supply of 500 gallons/minute for a two-hour duration for commercial properties up to 5 km away from a fire station.

One benefit of a tanker service is that it may lead to reduced costs for a community's residents. Many insurance providers offer reduced fire insurance premiums in communities that have fire departments with Superior Tanker Shuttle Accreditation.

Findings

Stone Mills depends on the Department to provide an efficient and reliable water supply despite the lack of municipal hydrants. In order to meet the community's needs, the Department maintains Superior Tanker Shuttle Accreditation. As of this FMP, the Department most recently completed the recertification process for this accreditation in 2025.

14.5 Roadmap for Improvement

Private Fire Hydrants

The Department should determine the locations of all private hydrants within Stone Mills. These hydrants should be inspected and flow-tested at least once a year in accordance with NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*.

This process will involve coordination with relevant stakeholders—namely, the owners of the private hydrants—in order to ensure compliance and avoid disruptions.

Non-Hydrant-Protected Areas and Alternative Water Sources

In order to ensure effective fire protection throughout the township, Stone Mills should examine its available water sources. To do so, Stone Mills should conduct a feasibility study that evaluates whether the township should install additional dry hydrants or cisterns. (If the township chooses to install cisterns, it must ensure that the cisterns meet capacity requirements for firefighting operations.) The study should also identify potential sites for dry hydrants, focusing on the sites' accessibility, proximity to water bodies, and year-round reliability. Overall, the goal of this study should be to enhance fire protection in the township and improve water supply capabilities for firefighting operations.

Stone Mills should also implement an annual testing program for dry hydrants and conduct necessary repairs in order to ensure operational reliability and readiness for firefighting operations.

14.6 Recommendations

Recommendations regarding the water supply in Stone Mills are as follows:

- 14-1. The Stone Mills Fire Department should identify the location of each private hydrant in Stone Mills. The fire department should then ensure that those hydrants are inspected and flow-tested at least once every year in accordance with NFPA 25.

-
- 14-2. Stone Mills should conduct a feasibility study to evaluate the installation of additional dry hydrants, with the goal of enhancing fire protection and improving water supply capabilities for firefighting operations.
 - 14-3. Stone Mills should implement a program to ensure that all of its existing dry hydrants undergo annual testing and necessary repairs, as this will ensure reliability and readiness of the hydrants for firefighting operations..

15.0 Asset Management

15.1 Overview

Asset management refers to the purchase, use, and upkeep of the various vehicles and equipment that fire departments use during emergency responses. Fire departments require their assets to remain in good working condition so that they can provide services safely and effectively.

A prudent asset management plan is essential to the success of a fire department's operations. The primary components of an asset management plan include strategic planning, cost forecasting, and budgeting.

15.2 Fire Fleet

15.2.1 Time and Monetary Commitments

Context

Firefighters respond to many kinds of emergencies, including fires, explosions, and motor vehicle collisions. In order to manage these situations safely and effectively, firefighters need to have access to an adequate and reliable fire fleet. A typical fire fleet consists of various specialized vehicles, such as pumpers, tankers, rescue vehicles, and aerials.

Purchasing a vehicle for a fire fleet is a significant investment for any municipality. Due to these costs, it is crucial for fire departments to make sure they only purchase vehicles that are necessary for responding to the specific risks in their communities. Each type of vehicle serves a distinct purpose, and not every fire department requires every type of vehicle.

The build-out time for a fire apparatus is another important consideration. Currently, there is a two-to-three-year build-out time for a fire apparatus. As such, fire departments must plan ahead for any new purchase, ensuring that the new vehicle will be ready by the time the current vehicle meets the end of its life cycle. These wait times also affect municipal councils, as a cultural shift must occur regarding the budgeting process. Councillors must approve the funding needed to purchase a new fire apparatus that might not be received for an extended period of time.

In addition to the initial purchase price, the ongoing maintenance and the eventual replacement of the vehicles in a fire fleet can both be costly. Because fire fleets are used to complete tasks in extreme conditions, the vehicles require regular maintenance to ensure they remain operational. Therefore, municipalities must budget for both the upkeep and the replacement of their fire fleets.

Despite the financial and time commitments involved in purchasing and maintaining a fire fleet, it is essential for every municipality to ensure that its fire department has the vehicles it needs to mitigate and resolve emergencies in the community.

Findings

As of this FMP, an asset management plan is in place for the scheduled replacement of the Department's fire fleet.

15.2.2 Considerations for Purchasing a Used Fire Apparatus

Context

Purchasing a used fire apparatus can offer lower upfront costs and quicker availability than a new vehicle. However, there are disadvantages and hidden risks associated with a used fire apparatus, such as:

- unknown maintenance history
- shorter remaining in-service life cycle
- outdated safety systems
- longer periods of downtime

In contrast, a new fire apparatus will have a full warranty, and it will likely conform to current NFPA safety features (such as advanced crash protection, clean-cab options, modern pumping technology, and modern communication technology). A new vehicle should also have predictable life cycle costs that are backed by manufacturer support.

Although the initial investment in a new fire apparatus is higher than a used apparatus, the new vehicle has long-term benefits, such as:

- reduced potential for surprise repairs
- improved reliability and response capability
- enhanced firefighter safety
- extended in-service life expectancy (which ensures a fire department can maintain operational readiness)
- extended usable life expectancy (which protects taxpayers from increases to maintenance bills)

Lastly, it is worth noting that a new fire apparatus can be purpose-built in a way that is configured to address local hazards.

15.2.3 Safety Standards

Context

Over the years, the vehicles used by the fire service have undergone considerable changes. For example, modern vehicles are generally larger than older models, and they have significantly more advanced technology. In addition, many types of older vehicles do not possess important features mandated by current regulations, such as anti-lock braking systems and roll stability control.

Due to changes in construction materials and onboard features, the vehicles in a modern fire fleet must comply with stricter safety standards than their older equivalents. These safety standards are outlined in various legislative documents, such as:

- the OHSA
- NFPA 1901, *Standard for Automotive Fire Apparatus*
- NFPA 1912, *Standard for Service Tests of Fire Pump Systems and Fire Apparatus*
- ULC S515-04: *Automotive Fire Fighting Apparatus*

Before purchasing any new vehicles for their fire fleets, municipalities and fire departments should carefully review all relevant laws and safety standards. This review is a crucial part of the planning and budgeting discussions that should take place during the development of an asset management plan.

By budgeting for the replacement of vehicles at the appropriate times, fire departments can protect the health and safety of their firefighters and maintain service levels in their communities.

Findings

The Department follows all applicable industry standards when purchasing a new fire apparatus.

15.2.4 Inspections, Testing, and Maintenance

Context

A fire fleet must undergo weekly and annual inspections, tests, and maintenance in order to ensure that each vehicle can start and operate properly whenever an emergency occurs. This level of servicing involves performing the following tasks:

- checking and adjusting brakes
- making lubrication and oil changes

- completing annual pump tests
- completing non-destructive ladder tests
- completing Ministry of Transportation inspections

Ongoing vehicle maintenance is imperative to the success of a fire department's operations. If the vehicles in a fire fleet cannot pass routine maintenance requirements (such as pump testing and regular valve replacements), a municipality and its firefighters are at risk of safety and liability concerns.

As a result of routine upkeep, each vehicle in a fire fleet will be out of service for several days a year in order to undergo scheduled maintenance. In addition, many types of servicing cannot be performed in-house. For example, fire departments usually need to hire mechanics with specialized training to inspect and repair safety systems, pollution control systems, and engine and driveline systems. In years past, a mechanically skilled firefighter could have performed those tasks, but the complex technology in modern vehicles has made it necessary to contract specialized assistance. Advanced maintenance work may also require certain vehicles to be taken out of service for extended periods.

For reference purposes, Table 33 shows the types of equipment tests that fire departments must perform in order to meet industry standards and insurance requirements.

Table 33. Tests required to meet industry standards and insurance requirements.

Reason for Testing ⁴⁵	Test at Time of Purchase (New or Used)	Testing on an Annual Basis	Testing at 15 Years	Testing at 20 Years ⁴⁶	Annual Testing at 20 to 25 Years	Testing After Extensive Repairs ⁴⁷
Recommended for fire insurance purposes	Acceptance test ⁴⁸ if new Service test ⁴⁹ if used and over 20 years old	Service test	Acceptance test	Acceptance test	Acceptance test	Acceptance or service test depending on extent of repair
Required for fire insurance purposes	Acceptance test if new Service test if used and over 20 years old	No test required	No test required	Acceptance test	Acceptance test	Acceptance or service test depending on extent of repair
Factor in FUS grading	Yes	Yes	Yes	Yes	Yes	Yes
Required by listing agency	Acceptance test	No	No	No	N/A	Acceptance test
Required by NFPA ⁵⁰	Acceptance test	Annual service test	Annual service test	Annual service test	Annual service test	Service test

⁴⁵ Refer to “Service Tests for Used or Rebuilt Fire Apparatus” (in the FUS technical bulletin “Insurance Grading Recognition of Used or Rebuilt Fire Apparatus”) for a description of applicable tests.

⁴⁶ Apparatus older than 20 years may not be eligible for insurance grading purposes regardless of testing. Application must be made in writing to FUS for an extension of the gradable life of the apparatus.

⁴⁷ After extensive repairs, testing should occur regardless of apparatus age (within reason).

⁴⁸ Acceptance tests consist of a 60-minute capacity test and a 30-minute pressure test.

⁴⁹ Service tests consist of a 20-minute capacity test and a 10-minute pressure test (in addition to other listed tests).

⁵⁰ For information on acceptance tests, see NFPA 1911, *Standard for Automotive Fire Apparatus*. For information on service tests, see NFPA 1911, *Standard for Service Tests at Fire Pump Systems on Fire Apparatus*, Article 5.1.

Findings

The Department conducts routine maintenance on its apparatus to ensure all vehicles and equipment remain in peak operational condition.

Routine maintenance practices include conducting thorough inspections and fluid checks, as well as testing emergency systems (such as lights, sirens, and communication devices).

15.2.5 Fleet Renewal and Rationalization

Context

A fire fleet assessment can begin with the following considerations:

- What types of apparatus comprise the current fire fleet?
- What types of responses does the fire department make?
- What are the fire department's available staffing levels for responses?

A fire department should keep these considerations in mind because they will help identify which fire apparatus it should purchase to suit its current and expected needs. Once a fire department has identified which fire apparatus it is likely to need, it should work with its municipal council to develop a strategic plan that outlines an appropriate fleet replacement schedule.

A fleet replacement schedule should consider several factors for each vehicle in the fire department's fire fleet. The main factors to consider include:

- age of current vehicle
- number of engine hours
- safety features and reliability
- current maintenance costs
- current servicing costs
- availability of replacement parts

Every municipal council and fire department should strive to have a fire fleet that is applicable to their community's needs. The fleet must have the functionality to operate whenever it is needed, and it must have the reliability to operate with minimal breakdowns at an emergency scene or during a training session.

When it is time to replace a fire apparatus, fire departments should consider the following factors when considering a replacement vehicle:

- applicability
- functionality
- overall vehicle condition

Fire departments should also consider various technologies that firefighters can use while operating a new vehicle, as well as ways to protect the safety of the vehicle's occupants.

Fire departments can also reference material developed by FUS when developing an apparatus replacement plan. For example, in smaller communities, FUS will not recognize an apparatus that is more than 20 years old. However, FUS also recognizes the tremendous financial burden that buying fire apparatus places on municipalities. As such, FUS will allow a community to extend the life cycle of a used or rebuilt fire apparatus if the vehicle can pass the recommended annual tests and is deemed to be in excellent mechanical condition.

When it is time to replace a fire apparatus, FUS recommends following the CAN/ULC-S515-13 standard, which was developed by the Underwriters Laboratories of Canada. This standard, titled the "Standard for Automotive Fire Fighting Apparatus," has been adopted as a national standard of Canada.

Table 34 presents the fleet replacement schedule that has been developed by FUS. The table's content and footnotes are sourced directly from FUS, as written by SCM Risk Management Services.⁵¹

⁵¹ "Insurance Grading Recognition of Used or Rebuilt Fire Apparatus," Fire Underwriters Survey.

Table 34. Fire apparatus replacement for fire insurance grading purposes.

Apparatus Age	Major Cities ⁵²	Medium Sized Cities ⁵³ or Communities Where Risk is Significant	Small Communities ⁵⁴ and Rural Centres
0-15 years	First line	First line	First line
16-20 years	Reserve	Second line	First line
20-25 years ⁵⁵	No credit in grading	No credit in grading or reserve ⁵⁶	No credit in grading or reserve ⁵⁶
26-29 years ⁵⁵	No credit in grading	No credit in grading or reserve ⁵⁶	No credit in grading or reserve ⁵⁶
30+ years	No credit in grading	No credit in grading	No credit in grading

⁵² Major Cities are defined as an incorporated or unincorporated community that has:

- a populated area (or multiple areas) with a density of at least 400 people per square kilometre; AND
- a total population of 100,000 or greater

⁵³ Medium Communities are defined as an incorporated or unincorporated community that has:

- a populated area (or multiple areas) with a density of at least 200 people per square kilometre; AND/OR
- a total population of 1,000 or greater.

⁵⁴ Small Communities are defined as an incorporated or unincorporated community that has:

- no populated areas with densities that exceed people per square kilometre; AND
- does not have a total population in excess of 1,000.

⁵⁵ All listed fire apparatus 20 years of age and older are required to be service tested by recognized testing agency on an annual basis to be eligible for grading recognition.

⁵⁶ Exceptions to age status may be considered in a small to medium sized communities and rural centres conditionally, when apparatus condition is acceptable and apparatus successfully passes required testing.

Most municipalities develop fleet replacement plans for five- or ten-year timeframes. In order to be realistic, the plans must account for inflation rates. Some price fluctuations are due to heightened material and labour costs. Other price changes are due to supply chain issues. Due to inflation rates, suppliers may reserve the right to increase the amount they charge customers for a new apparatus, even if a customer has a fixed-price contract or has pre-ordered an apparatus.

Because inflation rates are difficult to predict with certainty, municipalities should include a contingency plan as part of their capital replacement budgets. Doing so can help a municipality manage potential price increases to its apparatus order. A capital contingency plan may also help a municipality set aside funds that it can use to offset apparatus maintenance and service costs.

Supply and demand can also affect fleet replacement schedules. As of this FMP, there is a backlog in truck orders due to supply chain disruptions that occurred during the COVID-19 pandemic. The result of the backlog is that protracted delivery times for new apparatus are possible. Due to this backlog, fire departments and municipalities should consider ordering their new apparatus at a time that accounts for possible delivery delays.

Findings

Table 35 shows the Department's current fire apparatus replacement schedule.

Table 35. Fire apparatus replacement schedule for Stone Mills.

Vehicle	Make and Model	Year Built	Proposed Replacement Year
Tanker	GMC Almonte 2800 gallon	2002	2026
Pumper	Freightliner/Carl Thibault	2007	2027
Pumper	International/Eastway	2011	2031
Pumper	Freightliner/E-one	2022	2032
Utility	Ford F-250 4x4	2018	2033
Utility	Ford F-250 4x4	2018	2033
Tanker	International/Eastway	2014	2034
Tanker	GMC/Eastway	2009	2034
Pumper	International/Eastway	2015	2035
Tanker	International/Eastway	2015	2035

Vehicle	Make and Model	Year Built	Proposed Replacement Year
Utility	4x4	2024	2036
Boat	-	2016	2036
UTV	UTV & Trailer	2019	2039
Utility	Ford F-250 4x4	2025	2040
Rehab	Rehab trailer	2022	2042
Rescue	Rapid rescue	2023	2043
Wildland	Steyr – 1481 6x6 Percheron	1988	Will not be replaced
Rescue	Freightliner	1993	Will not be replaced

15.2.6 Electric Fire Apparatus

Context

An electric-powered fire apparatus is an emerging type of technology in the fire service. This kind of vehicle offers significant environmental and operational benefits, but there are also challenges related to availability, reliability, and cost.

As of this FMP, electric fire trucks are commercially available through several manufacturers, such as Rosenbauer and Pierce Manufacturing. However, the availability of the vehicles remains limited, with production primarily focused on larger urban fire departments that are capable of pioneering new technologies.

In terms of reliability, the use of electric fire trucks has shown promising results for initial deployments in urban centres. For instance, the Los Angeles Fire Department has reported strong performance benefits. However, questions remain about battery endurance during extended operations, as well as performance in cold climates and long-term maintenance needs. Due to these uncertainties, the current versions of these vehicles may not be ideal for cold climates, especially given the possible need to remain at an incident scene for an extended period.

In addition, most of the companies that make the current types of electric fire apparatus are American, and tariff uncertainties may factor into the decision to purchase an electric fire apparatus.

Table 36 summarizes various factors that fire departments should consider when choosing between electric and diesel-powered vehicles.

Table 36. Electric fire apparatus vs. diesel fire apparatus.

Category	Electric Fire Apparatus	Diesel Fire Apparatus
Purchase cost ⁵⁷	Approximately 30 to 50 per cent higher than a diesel fire apparatus	Lower than the average electric fire apparatus
Operating cost	Lower than the average diesel fire apparatus: • Charging costs are lower than fuelling costs. • Less maintenance is required.	Higher than the average electric fire apparatus: • Fuelling costs are higher than charging costs. • A diesel apparatus is more susceptible to mechanical wear.
Reliability	Good for urban/short runs Uses emerging technology	Proven reliability across all conditions
Availability	Limited (mainly large cities, pilot programs)	Widely available from multiple manufacturers
Environmental impact	Zero tailpipe emissions	High emissions (contributes to air pollution)
Cold weather performance	Still under evaluation (battery efficiency may drop)	Proven performance in cold climates
Infrastructure needed	Charging stations, possible upgrades to power grid	Existing fueling infrastructure
Lifespan (projected)	Potentially longer (fewer moving parts)	Standard lifespan
Ideal use	Urban, short-distance, quick-turnaround operations	Urban, rural, and long-duration operations

Findings

A basic overview of the types of electric fire apparatus that are currently available for purchase shows that vehicles may not be ideal for rural areas or cold climates.

Going forward, Stone Mills should review the advantages and disadvantages outlined in Table 36 when determining whether it should purchase an electric fire apparatus.

⁵⁷ As of this FMP, it is difficult to provide a precise cost estimate due to the current level of economic uncertainty related to tariffs.

15.3 Fire Service Equipment

15.3.1 Standard Equipment and Systems

Context

In addition to various types of apparatus, firefighters rely on a range of equipment to perform their duties.

Examples of fire service equipment are as follows:

- fire hoses and nozzles
- fittings
- ladders
- generators and lighting
- ventilation fans
- portable pumps
- saws
- gas detectors
- thermal imaging cameras
- various hand tools
- extrication equipment
- rapid intervention bags

Examples of other essential systems and equipment are as follows:

- radio communication systems
- dispatch equipment
- administrative systems, such as an RMS

All equipment is considered part of a fire department's assets. As a best practice, municipalities should keep track of the equipment their fire departments use, as this will assist with budget planning for any necessary repairs or replacements.

Findings

The Department maintains a proactive approach to equipment procurement by purchasing certain essential items on an annual basis. Annual purchases support the Department's ongoing operations and readiness.

The Department strategically forecasts larger or specialized equipment acquisitions and incorporates these purchases into future budgets, ensuring financial sustainability and operational efficiency.

Planned equipment purchases are documented within the Department's asset management plan. The plan serves as a comprehensive framework for tracking lifecycle costs, replacement schedules, and long-term resource allocation.

15.3.2 Radio Communication Systems

Context

Fire service personnel use radio communication systems to communicate with dispatch services, response agencies, and other responders at emergency scenes. Although purchasing, maintaining, and upgrading radio systems may require a significant level of capital investment, these systems are vital during emergency responses. Without effective radio communications, it is difficult for first responders to coordinate response efforts safely.

Fire departments should also consider the safety features of their portable radios. For instance, intrinsically safe portable radios are designed to operate safely in hazardous environments where flammable gases, vapours, or combustible dusts may be present. These radios are engineered to prevent sparks, heat, or electrical energy that could otherwise ignite and cause an explosion. Due to the potential for an incident to occur at a fuel storage facility or an industrial site, it is important for fire departments to have intrinsically safe portable radios. This type of radio is also crucial when fire service personnel respond to a chemical fire.

Intrinsically safe radios may be certified to strict standards to ensure they can be used without creating a risk of ignition. One of these standards is NFPA 1802, which is included in the consolidated standard NFPA 1930, *Standard on Fire and Emergency Service Use of Thermal Imagers, Two-Way Portable RF Voice Communication Devices, Ground Ladders, Rescue Tools, Fire Hose, and Fire Hose Appliances*. The content of NFPA 1802 includes performance standards for portable radios used by fire crews in extreme and hazardous conditions.

Findings

The Department has established a robust communications system. For instance, there is a repeater located in Centerville that supports all radio transmissions. However, some areas within the municipality continue to experience dead zones.

Each of the Department's stations is equipped with 18 radios. The radios were purchased in 2025 to ensure that the Department had modern, reliable communication equipment. The radios are intrinsically safe and meet firefighting standards for use in hazardous environments.

15.4 Roadmap for Improvement

Fleet Renewal and Rationalization

The Department should begin the fleet renewal and rationalization process by evaluating its operational needs, the long-term sustainability of its assets, and its compliance with applicable regulations. As of this FMP, the Department uses NFPA standards (particularly NFPA 1901 and NFPA 1911) to guide decisions about any new apparatus and ensure consistency in safety, performance, and serviceability.

Additionally, FUS provides critical benchmarks for vehicle service life and deployment, directly influencing insurance ratings and community risk assessments. By integrating FUS standards into its asset management plan, the Department can prioritize replacements, optimize fleet composition, and justify capital investments.

Fire Service Equipment

Achieving effective fire service equipment management requires balancing immediate operational readiness with long-term asset sustainability. The Department should continue to conduct routine maintenance on all equipment to ensure it operates reliably during emergency responses and to extend service life.

The Department should investigate enhancing firefighter safety by procuring two more rapid intervention bags, which would ensure that each station is equipped with these critical rescue devices.

Maintaining equipment and purchasing rapid intervention bags will allow the Department to achieve operational efficiency and the highest standards of firefighter protection.

Radio Communication Systems

The successful purchase of new radios in 2025 has already improved the reliability of the Department's communication and firefighter safety. The new radios also ensure that the Department remains compliant with industry standards.

The Department should continue to maintain its intrinsically safe radios and repeater system. Maintaining its communications equipment will provide the Department with reliable communication channels that enhance firefighter safety and operational efficiency.

The Department should determine whether it is feasible to install repeaters at all four stations. Installing additional repeaters will eliminate communication dead zones and further improve radio coverage.

The initiatives outlined above represent a proactive approach to improving the Department's emergency response capabilities and safeguarding its personnel.

15.5 Recommendations

Recommendations regarding asset management in Stone Mills are as follows:

- 15-1. The Fire Chief should continue to refine a formalized equipment maintenance program for the Stone Mills Fire Department. The plan should provide the fire department with a strategy for ensuring that all of its equipment reaches the intended life cycle (or is replaced on an as-needed basis).
- 15-2. The Stone Mills Fire Department should continue to complete applicable maintenance work on all of its equipment (from hand tools to specialized gear) in order to ensure each asset functions reliably during emergency responses. The maintenance work may also help extend the service life of those assets.
- 15-3. The Stone Mills Fire Department should investigate the addition of two rapid intervention bags so that each of its fire stations is equipped with critical rescue devices to enhance firefighter safety.
- 15-4. The Stone Mills Fire Department should implement an equipment management strategy that balances immediate operational readiness with long-term asset sustainability and cost-effectiveness.
- 15-5. The Stone Mills Fire Department should investigate the installation of repeaters at each of its fire stations in order to enhance coverage and eliminate dead zones. The Fire Chief should then submit the report to Council for consideration and approval.
- 15-6. The Stone Mills Fire Department should formally integrate the standards developed by Fire Underwriters Survey into its asset management plan. The standards should be used to guide apparatus replacement priorities, help optimize fleet composition, and support the justification of future capital investments.

16.0 Documentation and Records Management

16.1 Overview

It is vital for every fire department to maintain up-to-date records about its responses, fire prevention initiatives, inventory, and maintenance efforts.

Proper records management ensures there is documentation to support the following administrative and operational needs:

- Proper records management provides evidence that the fire department, its fire chief, and its municipal council are meeting their legislative requirements.
 - For instance, accurate fire prevention records are crucial for ensuring that a fire department complies with local regulations.
- Proper documentation can help a fire department reduce the risk of liability issues for itself and its municipality.
- A fire department can use documentation to complete strategic planning.
- Historical response data enables fire departments to analyze response times, identify service gaps, and justify staffing or funding needs.
 - A fire department can also use this data to guide targeted community risk reduction efforts.
- Having a set of up-to-date inventories can support operational readiness by ensuring equipment is accounted for and serviceable.
 - Detailed fleet repair logs can also help prolong the expected lifecycle of an apparatus, and they can assist with scheduling preventative maintenance and controlling costs.

Best practices have shown that using a formalized RMS is the most efficient way of maintaining accurate records. Using a robust RMS strengthens a fire department's operational effectiveness and administrative accountability.

16.2 Records Management System

16.2.1 Documentation

Context

Fire departments should maintain various documentation in order to uphold consistency, safety, and operational efficiency.

Table 37 explains some of the key types of documentation for fire departments.

Table 37. Key types of documentation for fire departments.

Type of Documentation	Description
Operational documents	Written policies, SOGs, and manuals ensure that all personnel understand their roles, follow best practices, and perform tasks uniformly. This guidance can reduce the risk of errors during emergency operations. These documents also support legal protection and accountability by providing a clear record of departmental standards and expectations.
Training schedules	Training schedules ensure that personnel meet certification requirements and keep their skills up to date. The schedules can also support a fire department's strategic planning efforts.
Equipment checklists	Equipment checklists can help a fire department maintain readiness and identify maintenance issues early. This information can be used to prolong the life of essential apparatus and gear.

Both NFPA 1500 and NFPA 1561 address the importance of written procedures and records. These standards are included in the consolidated standard NFPA 1550, *Standard for Emergency Responder Health and Safety*.

Findings

The Department is currently using the Emergency Reporting platform as its primary RMS. Emergency Reporting is a comprehensive RMS that supports the Department's operational efficiency and data-driven decision-making by centralizing critical information.

The platform allows the Department to perform the following functions:

- incident reporting
- logistics management
- property and inspection tracking
- scheduling and payroll
- activity documentation
- asset management
- hydrant location mapping
- analytics

All of the Department's firefighters have individual accounts within the Emergency Reporting system. Officers from each station are responsible for entering incident and training information. The entries made by officers are subsequently reviewed for accuracy and completeness.

16.3 OFM Reporting

Context

In Ontario, fire departments are legally obligated to report fire incidents to the OFM in accordance with the FPPA. Fire departments must submit data to the OFM on a quarterly basis.

Section 11(1) of the FPPA designates fire chiefs and other specified individuals as "assistants to the Fire Marshal." These individuals are required to adhere to directives issued by the Fire Marshal, including the timely reporting of fire incidents.

In addition, Fire Marshal Directive 2023-001 includes a requirement that mandates assistants to the Fire Marshal to notify the OFM of fires or explosions that result in fatalities, life-threatening injuries, or significant property damage. These notifications must be communicated promptly. It is also essential for the OFM to fulfill its responsibilities, which include investigating the causes of fires and maintaining comprehensive fire-related statistics across the province.

Findings

The Department uses the information it records in the Emergency Reporting system to provide monthly incident reports to the OFM.

16.4 Roadmap for Improvement

Records Management System

The Department should ensure that it is fully leveraging the capabilities of its RMS. The system should centralize all information related to the Department's critical functions (including incident reporting, training records, property inspections, asset management, hydrant locations, scheduling, and analytics).

In order to ensure it uses its RMS effectively, the Department should train all personnel on proper data entry and reporting procedures. All entries made in the RMS should be reviewed by the Department's officers for accuracy and completeness.

Fire Department Modernization

There are numerous types of technology that can be integrated with an RMS. Volunteer fire departments can use these technologies to enhance their response capabilities in a way that is affordable and suited to their staffing levels.

Table 38 lists some examples of the types of technology that can be integrated with an RMS. Each of these technologies can be integrated into the Department's operations. Going forward, the Department should explore these options to identify which tools will help enhance response times, coordination, and firefighter safety without overextending available resources.

Table 38. Examples of technologies used by the fire service.

Type of Technology	Purpose and Additional Information
Mobile dispatch and alerting apps (such as Who's Responding) ⁵⁸	Personnel can use these applications to receive notifications and respond efficiently from remote locations.
GPS, mapping tools, satellite communication, drones, and location tools (such as What3Words)	- These tools can be integrated into vehicles to aid navigation. - These tools can help locate hydrants or rural addresses. - These tools can help pinpoint and relay exact positions (such as locations in densely forested regions).
Incident command software and pre-incident planning apps	This type of software can provide access to building layouts, hazardous materials data, and hydrant locations.
Cloud-based training platforms and scheduling tools	These tools can help manage certifications and availability.

⁵⁸ Note: The Department is already using the Who's Responding application for mobile notification purposes.

16.5 Recommendations

Recommendations regarding documentation and records management in Stone Mills are as follows:

- 16-1. The Stone Mills Fire Department should fully leverage the capabilities of its current records management system in order to centralize the fire department's critical functions. These functions include incident reporting, training records, property inspections, asset management, hydrant and water availability locations, scheduling, and analytics.
- 16-2. In order to enhance operational efficiency, improve firefighter safety, and deliver more timely and effective emergency responses, the Stone Mills Fire Department should consider using modern technological tools that can be integrated with a records management system.

Appendix A: List of Abbreviations

This Fire Master Plan uses the following acronyms and abbreviations:

AHJ:	authority having jurisdiction
AODA:	Accessibility for Ontarians with Disabilities Act
CEMC:	community emergency management coordinator
CISM:	critical incident stress management
Council:	Council of the Township of Stone Mills
CRA:	community risk assessment
Department, the:	Stone Mills Fire Department
E&R bylaw:	establishing and regulating bylaw
ECG:	emergency control group
EMCPA:	Emergency Management and Civil Protection Act, R.S.O. 1990
EMP:	emergency management program
EOC:	emergency operations centre
FCI:	Facility Condition Index
Fire Chief, the:	Stone Mills Fire Chief
FMP:	fire master plan
FPPA:	Fire Protection and Prevention Act, S.O. 1997
GFA:	gross floor area
GIS:	geographic information system
ICS:	incident command system
ISO:	incident safety officer
JHSC:	joint health and safety committee

JPRs:	job performance requirements
KFL&A Health Unit:	Kingston, Frontenac and Lennox & Addington Health Unit
LAPS:	Lennox and Addington County Paramedic Services
MNR:	Ministry of Natural Resources
NFPA:	National Fire Protection Association
NIST:	National Institute of Standards and Technology
OBC:	O. Reg. 332/12: Building Code
OFC:	O. Reg. 213/07: Fire Code
OFM:	Office of the Fire Marshal
OHSA:	Occupational Health and Safety Act, R.S.O. 1990
PIAR:	post-incident analysis and review
PPE:	personal protective equipment
RMS:	records management system
SCBA:	self-contained breathing apparatus
SOGs:	standard operating guidelines
WHMIS:	Workplace Hazardous Materials Information System

Appendix B: References

- Aiken, Laura. "The Economics of Apparatus - Fire Fighting in Canada." Fire Fighting in Canada, October 27, 2022. <https://www.firefightingincanada.com/the-economics-of-apparatus/>.
- Barber, Katherine. *Canadian Oxford Dictionary*. Oxford University Press, 2004.
- Beetz, Jean, et al. "Laurentide Motels Ltd. v. Beauport (City) - SCC Cases." Supreme Court of Canada, n.d. <https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/436/index.do>.
- Blackwell, T. H., and J. S. Kaufman. "Response Time Effectiveness: Comparison of Response Time and Survival in an Urban Emergency Medical Services System." *Academic Emergency Medicine* 9, no. 4 (2002): 288–95.
- Canadian Centre for Occupational Health and Safety. "Diesel Exhaust," June 13, 2023. https://www.ccohs.ca/oshanswers/chemicals/diesel_exhaust.html.
- Durlauf, Steven N., and H. Peyton Young. *Social Dynamics*. MIT Press, 2004.
- Earle, Richard B. Fire Apparatus Replacement: The Need for a Capital Plan. National Fire Academy, 1997. <https://apps.usfa.fema.gov/pdf/efop/efo27938.pdf>.
- fireapparatusmagazine.com. "Refurbish or Replace – That is the Question," n.d. <https://www.fireapparatusmagazine.com/fire-apparatus/refurbish-or-replace-that-is-the-question/>.
- Government of Canada, Statistics Canada. "Census of Population," January 9, 2024. <https://www12.statcan.gc.ca/census-recensement/index-eng.cfm>.
- Haynes, Hylton J. G., and Gary P. Stein. *Canadian Fire Department Profile, 2014-2016, 2018*. <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Emergency-responders/oscanada.pdf>.
- Health Canada. "Emergency Preparedness." Canada.ca, September 3, 2019. <https://www.canada.ca/en/health-canada/services/health-concerns/emergencies-disasters/emergency-preparedness.html>.
-

Jon's Mid America. "Should You Repair or Replace Your Old Fire Apparatus? Consider These 3 Factors," September 30, 2020. <https://jonsmidamerica.com/repair-replace-old-fire-apparatus-consider-3-factors/>.

Legislative Services Branch. "Consolidated Federal Laws of Canada, Vessel Safety Certificates Regulations," June 23, 2021. <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2021-135/>.

Medical Advisory Secretariat. "Use of Automated External Defibrillators in Cardiac Arrest: An Evidence-Based Analysis." Ontario Health Technology Assessment Series 5, no. 19 (2005): 1–29. <https://pubmed.ncbi.nlm.nih.gov/23074470>.

Ministry of Labour, Training and Skills Development. "Firefighter's cancer prevention checklist." ontario.ca, October 30, 2020. <https://files.ontario.ca/mltsd-firefighter-cancer-prevention-checklist-en-10-30-2020.pdf>.

Ministry of Municipal Affairs and Housing. "Year 2023 - Financial Information Return." Financial Information Return, June 26, 2025. <https://efis.fma.csc.gov.on.ca/fir/index.php/en/year-municipality/year-2023-2-2/>.

Ministry of the Solicitor General. "Firefighter Certification." ontario.ca, January 28, 2022. <https://www.ontariocanada.com/registry/view.do?postingId=40668&language=en>.

National Fire Protection Association. "Female Firefighter PPE: Investigation of Design, Comfort, and Mobility Issues for Female Firefighter Personal Protective Clothing," December 10, 2019. <https://www.nfpa.org/-/media/Files/News-and-Research/Resources/Research-Foundation/Current-projects/ProjectSummaryFemaleFirefighterPPE.ashx>.

National Fire Protection Association. "Fire Service Emerging Technologies Reports," n.d.

National Fire Protection Association. "List of NFPA Codes and Standards," n.d. <https://www.nfpa.org/Codes-and-Standards/All-Codes-and-Standards/List-of-Codes-and-Standards>.

National Fire Protection Association. *NFPA 1010, Standard on Professional Qualifications for Firefighters*, 2024.

National Fire Protection Association. *NFPA 1020, Standard for Fire and Emergency Services Instructor, Fire Officer, and Emergency Medical Services Officer Professional Qualifications*, 2025.

National Fire Protection Association. *NFPA 1550, Standard for Emergency Responder Health and Safety*, 2024.

National Fire Protection Association. *NFPA 1900, Standard for Aircraft Rescue and Firefighting Vehicles, Automotive Fire Apparatus, Wildland Fire Apparatus, and Automotive Ambulances*, 2024.

National Fire Protection Association. *NFPA 2500, Standard for Operations and Training for Technical Search and Rescue Incidents and Life Safety Rope and Equipment for Emergency Services*, 2022.

National Institute of Standards and Technology. "Landmark High-Rise Fire Study Evaluates Effectiveness of Crew Sizes, Elevator Use," April 10, 2013.
<https://www.nist.gov/news-events/news/2013/04/landmark-high-rise-fire-study-evaluates-effectiveness-crew-sizes-elevator>.

National Institute of Standards and Technology. "Landmark Residential Fire Study Shows How Crew Sizes and Arrival Times Influence Saving Lives and Property." National Institute of Standards and Technology, April 28, 2010.
<https://www.nist.gov/el/fire-research-division-73300/firegov-fire-service/landmark-residential-fire-study-shows-how-crew>.

Ontario Association of Fire Chiefs. "Firefighter Guidance Notes." ontario.ca, May 27, 2022. <https://www.ontario.ca/document/firefighter-guidance-notes>.

Ontario Association of Fire Chiefs. "Ontario Association of Fire Chiefs."
<https://oafc.on.ca/>.

Ontario Municipal Fire Prevention Officer's Association. "OFM Public Education Matters," February 22, 2021. <https://omfpoa.com/ofm-public-education-matters/>.

-
- ontario.ca. "Fire Safety at Home," March 2, 2023. <https://www.ontario.ca/page/fire-safety-home>.
- ontario.ca. "Firefighter Training and Certification," n.d. <https://www.ontario.ca/page/firefighter-training-and-certification>.
- ontario.ca. "Supervisors under the Occupational Health and Safety Act," n.d. <https://www.ontario.ca/page/supervisors-under-occupational-health-and-safety-act>.
- ontario.ca. "The Office of the Fire Marshal," August 12, 2022. <https://www.ontario.ca/page/office-fire-marshal>.
- Opta Information Intelligence Corp. "Fire Underwriters Survey - a Service to Insurers and Municipalities." <https://fireunderwriters.ca/>.
- Pons, Peter T., et al. "Paramedic Response Time: Does It Affect Patient Survival?" *Academic Emergency Medicine* 12, no. 7 (July 1, 2005): 594–600. <https://doi.org/10.1197/j.aem.2005.02.013>.
- Rosenbauer International AG. "The RT. Revolutionary in every way." Rosenbauer. <https://www.rosenbauer.com/en/ca/rosenbauer-world/vehicles/municipal-vehicles/rt>.
- Shetler, Ian. "Where Are They Going?" Association of Municipal Managers, Clerks, and Treasurers of Ontario, 2011.
- Sinden, K. et al. "A Qualitative Study on the Experiences of Firefighters Serving in an Urban Fire Department in Canada." *Work* 1, no. 45 (n.d.): 87–95.
- Smith, Matt. "Report No. COM2019-04: Inter-Township Fire Department Agreement Negotiations," September 9, 2019. <https://meaford.civicweb.net/document/79190/>.
- Township of Stone Mills. "Community Profile." Accessed October 1, 2025. <https://www.stonemills.com/living-here/community-profile/>.
- U.S. Fire Administration. "Alternative Fuel Fire Apparatus Report," n.d.
- U.S. Fire Administration. "Operational Training Guidance for Fire Services," n.d.
-

U.S. Fire Administration. *Retention and Recruitment for the Volunteer Emergency Services*. Federal Emergency Management Association, 2023.
<https://www.usfa.fema.gov/downloads/pdf/publications/retention-and-recruitment-for-volunteer-emergency-services.pdf>.

WorkSafeBC. "Confirm Drivers Are Legally Authorized to Drive," September 2018.
<https://www.ihsa.ca/pdfs/road-safety-solutions/building-your-road-safety-program/step-2/confirm-drivers-are-legally-authorized-to-drive.pdf>.

Appendix C: Applicable Legislation

In Ontario, the fire service must observe various requirements outlined in the following legislation.

Accessibility for Ontarians with Disabilities Act: This act defines accessibility standards for goods, services, facilities, accommodation, employment, buildings, structures, and premises.

Coroners Act: This act outlines the regulations that govern the control of bodies. The act authorizes and regulates coroner inquests and coroner inquest recommendations.

Dangerous Goods Transportation Act: This act outlines the regulations that govern the transportation of dangerous goods.

Day Nurseries Act: This act defines the legislative requirements that day-care operators must meet (to the satisfaction of their local fire chief) before they can operate a day-care facility.

Development Charges Act: This act authorizes portions of development charges to be allocated to the fire service.

Emergency Management and Civil Protection Act: This act requires every municipality to have an emergency management plan and a trained community emergency management coordinator to conduct training exercises for the emergency control group.

Employment Standards Act: This act outlines regulations pertaining to human resources. (See also: **Labour Relations Act.**)

Environmental Protection Act: This act requires fire service personnel to report spills to the Ministry of the Environment, Conservation, and Parks (formerly referred to as the Ministry of the Environment).

Forest Fire Prevention Act: This act only applies to areas classified as “fire regions.” The act outlines regulations for controlling outdoor fires in restricted fire zones. The act requires municipalities to extinguish all grass, brush, and forest fires that occur within their geographic limits. The act authorizes the applicable minister to appoint wardens and officers.

Fire Protection and Prevention Act: This act outlines the regulations that govern both the Office of the Fire Marshal and municipalities. Part IX of the act 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.

Highway Traffic Act: This act outlines how fire vehicles are to operate during emergency responses, firefighter responses on roads that have been closed by police, the use of flashing green lights on the personal vehicles of fire service personnel, and controlling traffic at accident scenes.

Human Rights Code: This act defines how boards of inquiry, complaints, discrimination, and enforcement are handled.

Municipal Act: This act authorizes the passing of bylaws that are necessary for the provision of fire protection.

Municipal Freedom of Information and Protection of Privacy Act: This act defines how access to information held by institutions is granted and obtained. The intention of the act is to protect the privacy of individuals concerning personal information about themselves held by institutions.

Occupational Health and Safety Act: This act outlines regulations that govern various occupational health and safety concerns.

O. Reg. 207/96: Outdoor Fires: This regulation outlines directives for controlling outdoor fires that occur outside of restricted fire zones.

O. Reg. 211/01 and 440/08: Propane Storage and Handling: These regulations require propane operators to obtain approval from their local fire department in regard to all risk and safety management plans. The fire department must approve the sections of the plans that deal with fire safety, fire protection, and emergency preparedness.

O. Reg. 213/07: Fire Code: This regulation outlines various requirements that fire departments must observe.

O. Reg. 297/13: Occupational Health and Safety Awareness and Training: This legislation outlines the health and safety awareness training that an employer must provide for its employees.

O. Reg. 332/12: Building Code: This regulation authorizes municipalities to appoint certain fire service personnel as building inspectors.

O. Reg. 340/94: Drivers' Licenses: This regulation outlines the licensing requirements of each class of motor vehicle.

O. Reg. 364/13: Mandatory Inspection – Fire Drill in Vulnerable Occupancy: This regulation mandates that fire departments complete inspections in vulnerable occupancies.

O. Reg. 365/13: Mandatory Assessment of Complaints and Requests for

Approval: This regulation mandates that fire departments complete inspections upon complaint or request.

O. Reg. 378/18: Community Risk Assessments: This regulation mandates that a municipality or its fire department must complete a community risk assessment no later than five years after the day its previous community risk assessment was completed. The regulation also outlines content that all community risk assessments must include.

O. Reg. 380/04: Standards: This regulation defines standards for municipal emergency management programs.

O. Reg. 714/94: Firefighters – Protective Equipment: This regulation defines protective equipment standards that fire departments must meet.

Pesticides Act: This act makes it mandatory to report wholesale and retail pesticide use to the fire department.

Provincial Offences Act: This act authorizes assistants to the Fire Marshal to serve as provincial offences officers (in regard to offences related to smoke alarms).

Workplace Safety and Insurance Act: This act requires employers to report on-the-job accidents. The act also requires employers to document employee training records and provide them upon request.