

THE **LOOMEX** GROUP



TOWNSHIP OF
McNab/Braeside
Fire Master Plan

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Township of McNab/Braeside Fire Master Plan

Prepared by:

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Disclaimer

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

All findings and recommendations presented in this fire master plan are objective and are intended to represent the best interests of the Township of McNab/Braeside and its fire protection needs. However, some of the recommendations may require additional study or consideration.

Although this fire master plan provides a long-term strategic vision for McNab/Braeside, the township must keep the plan current with the community's needs and circumstances. At a minimum, the township should review this document annually to ensure the information it contains remains up to date. In addition, the township should completely revise this fire master plan every five years.

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Executive Summary

Purpose

The Township of McNab/Braeside contracted The Loomex Group to develop a fire master plan (“**FMP**”).

The FMP project had the following goals:

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

The Council of the Township of McNab/Braeside (“**Council**”) and the McNab/Braeside Fire Department (“**the Department**”) can reference this FMP when making policy, organizational, capital, and operational decisions for the short-term (within two years) and the long-term (within five to ten years).

Process

The FMP development process included the following components:

1. Evaluate the Department’s structure, programs, and levels of service.
2. Meet with stakeholders from McNab/Braeside and the Department to gain first-hand insights about the community and the Department’s operations.
3. Analyze McNab/Braeside’s current fire safety risks, needs, and circumstances.
4. Review McNab/Braeside’s fire loss statistics and compare them to current trends in order to estimate the township’s future fire protection needs.

After completing all reviews and stakeholder meetings, 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 (as applicable).

Findings

Some of the Department's key strengths are as follows:

- All members of the Department—from the Fire Chief to probationary firefighters—are dedicated to providing fire suppression services to the McNab/Braeside community.
- The Department recognizes that there is a need to test and inspect its assets and equipment on a regular basis. As such, the organization has established a plan for using third-party suppliers to help maintain the critical aspects of asset management.

Some of the main challenges facing the Department are as follows:

- The Department has an aging fleet of vehicles that requires attention in regard to replacements and ongoing maintenance requirements. Monitoring these areas will require careful oversight and budgetary planning.
- The Department has older fire stations that lack important features and resources. A review of the stations is necessary in order to identify areas that will need to be updated to ensure that McNab/Braeside continues to receive the level of service it requires.¹
- The Department's firefighters have indicated that they find it difficult to devote the time needed to obtain the certifications, licences, and medical qualifications to perform their fire service duties while still fulfilling their work and personal commitments.
- The Department's fire management team consists of one individual, which creates the potential for a single-point-of-failure scenario. In order to reduce the issues that result from a single-point-of-failure scenario, the Department needs to hire additional support staff to ensure that its fire management team has enough members to lead the organization successfully.

In recent years, the Department has implemented changes to address these challenges. This document discusses those efforts as applicable.

This FMP gives due consideration to both the Department's strengths and weaknesses in order to provide McNab/Braeside with a realistic picture of the Department's current capabilities and limitations.

¹ The Loomex Group is providing McNab/Braeside with a current fire station assessment in conjunction with this FMP.

Recommendations

This FMP contains 34 recommendations for Council and the Department to consider.

The recommendations focus on several key actions, including:

- Develop a plan to update (or replace) the fire stations in McNab/Braeside. The plan should ensure that the township can prioritize the safety and security of its residents and fire service personnel.
- Continue to modernize the Department's record management system and ensure the fire management team has enough personnel to affect change and lead the organization effectively.
 - The Department is in the process of addressing this recommendation. An administrative support staff member was hired in 2025, and the process for hiring a deputy chief has begun.
- Continue to review current policies, procedures, and by-laws (including agreements with local stakeholders).

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

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

Summary of Recommendations

Purpose of Recommendations

The recommendations in this FMP are designed to help the Department accomplish the following objectives:

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

The recommendations suggest practical improvements that the Department can reasonably complete within the next five to ten years. (This FMP also contains information that the Department can use to guide its operations over a longer term.)

Additional Considerations

Each recommendation in this FMP involves 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?
 - Ongoing: Implement the recommendation on an ongoing basis as needed.
 - Short-term: Implement the recommendation within two years.
 - Long-term: Implement the recommendation within five to ten years.

The additional considerations give McNab/Braeside a practical schedule for implementing the recommendations in this FMP.

List of Recommendations

Table 1 includes 14 actions that McNab/Braeside and the Department should **start**.

Table 2 includes 16 actions that McNab/Braeside and the Department should **continue**.

Table 3 includes four recommendations that McNab/Braeside has already **completed** during the FMP process (as a result of discussions with The Loomex Group).

Table 1. List of recommendations (to start).

Rec. #	Section	Recommendation	Considerations
5-1	By-laws	The Fire Chief should review all current by-laws pertaining to the McNab/Braeside Fire Department, updating them as required. All updated by-laws should be submitted to Council for consideration and approval.	Mandatory: No Council approval: Yes Budget impact: No Timeframe: Short-term
5-2	By-laws	The Fire Chief should develop a schedule for reviewing all by-laws pertaining to the McNab/Braeside Fire Department. These reviews should take place on a regular basis.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
7-3	Recruitment and Retention	The Fire Chief should work with Council and applicable municipal staff members to develop ways of publicly acknowledging local employers that allow volunteer firefighters to leave work to perform emergency responses. These initiatives could also involve local media in order to promote pride and ownership in the local fire department and community.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Short-term
9-1	Stakeholder Engagement	The Fire Chief should review the results of the SWOT analysis that was conducted as part of the 2025 McNab/Braeside Fire Master Plan. The Fire Chief should then determine whether the fire department should update its operations or strategic planning to incorporate suggestions from the SWOT analysis. (For reference purposes, the fire master plan contains a high-level analysis of the themes identified during the SWOT analysis.)	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
11-1	Occupational Health and Safety	The Fire Chief should review the current occupational health and safety policies that pertain to the McNab/Braeside Fire Department. The Fire Chief should then select a representative to monitor the health and safety boards in their fire station to ensure that they are updated on a regular basis.	Mandatory: Yes Council approval: No Budget impact: Yes Timeframe: Short-term

Rec. #	Section	Recommendation	Considerations
11-2	Occupational Health and Safety	The Fire Chief should work with the joint health and safety committee to develop a health and safety training program for the McNab/Braeside Fire Department. This program should be provided to all of the fire department's personnel, including its recent recruits.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Short-term
11-4	Occupational Health and Safety	The Fire Chief should develop a policy for mitigating how much fire apparatus exhaust the firefighters of the McNab/Braeside Fire Department are exposed to while operating in their fire stations. The policy should adhere to Section 21 Guidance Note #3-1.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Short-term
12-1	Types and Levels of Service	The Fire Chief should update the establishing and regulating by-law for McNab/Braeside (as required) as it pertains to the core and specialized services provided by the McNab/Braeside Fire Department. (The updated by-law should be based on the findings of the 2025 McNab/Braeside Fire Master Plan.) The updated by-law should then be submitted to Council for consideration and approval.	Mandatory: Yes Council approval: Yes Budget impact: No Timeframe: Short-term
13-2	Fire Prevention and Public Education	The Fire Chief should reinstate the pre-planning process at the fire stations in McNab/Braeside as part of ongoing in-service training. For documentation purposes, this process should be tracked using a new records management system.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
14-1	Training and Certifications	After the new deputy chief position is filled, the Fire Chief should reassess the structure and operations of the current training committee for the McNab/Braeside Fire Department. The committee should help plan and implement the fire department's training program and officer development program.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term

Rec. #	Section	Recommendation	Considerations
14-4	Training and Certification	The Fire Chief should develop a succession planning policy for the McNab/Braeside Fire Department.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
16-1	Fire Station Assessments	The Fire Chief should develop a report that explains it is beneficial to replace Station 1 – Glasgow with a new station that is located at (or near) the site of the current facility. The report should emphasize that a new station will help support the current and future needs of the McNab/Braeside Fire Department, as well as help protect the safety of the community and its firefighters. The report should be submitted to Council for consideration and approval.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term
16-2	Fire Station Assessments	The Fire Chief should prepare a report that outlines which upgrades must be completed in order to ensure the fire stations in McNab/Braeside comply with current code requirements and accessibility legislation (including the AODA). The report should be submitted to Council for consideration and approval.	Mandatory: No Council approval: Yes Budget impact: No Timeframe: Short-term
17-2	Water Supply	The Fire Chief should review all of the by-laws and agreements that McNab/Braeside has established with third parties and mutual aid partners regarding water supply. The purpose of this review should be to ensure that all current by-laws and agreements are meeting the needs of the McNab/Braeside Fire Department. The Fire Chief should also ensure that applicable by-laws and agreements are updated on a regular basis.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term

Table 2. List of recommendations (to continue).

Rec. #	Section	Recommendation	Considerations
6-1	Fire Service Agreements	McNab/Braeside should continue to work with its partners from Lanark Highlands, Ontario Power Generation, and the Ministry of Natural Resources to review and update all applicable agreements and by-laws to ensure they are current. Once the agreements are updated, they should be reviewed on a regular basis.	Mandatory: No Council approval: Yes Budget impact: No Timeframe: Short-term
7-1	Recruitment and Retention	McNab/Braeside should continue allowing the volunteer firefighters to apply as an internal candidate (rather than as an external candidate) for all municipal job postings, provided the firefighters possess the required knowledge and skills.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
7-2	Recruitment and Retention	The Fire Chief should continue conducting formal awards ceremonies to acknowledge local firefighters who have received promotions, demonstrated exemplary service, or reached a milestone regarding their years of service with the McNab/Braeside Fire Department. McNab/Braeside should also consider hosting a recognition event to publicly acknowledge volunteer firefighters.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Short-term
10-1	Emergency Management	The Fire Chief and McNab/Braeside's community emergency management coordinator should continue to coordinate emergency management training sessions and exercises for the township's municipal emergency control group. The training and exercises should incorporate external resources and partners to ensure that all participants can practise fulfilling their assigned duties.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Ongoing
11-3	Occupational Health and Safety	The Fire Chief should continue to develop a plan that will allow the McNab/Braeside Fire Department to purchase an additional supply of personal protective equipment (for backup purposes).	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term

Rec. #	Section	Recommendation	Considerations
11-5	Occupational Health and Safety	The Fire Chief and the McNab/Braeside Human Resources Department should work together to continue providing the McNab/Braeside Fire Department with information about proper nutrition, exercise, injury prevention, and general wellness strategies. This information should be provided on a regular basis.	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing
11-6	Occupational Health and Safety	The Fire Chief and the McNab/Braeside Human Resources Department should work together to continue supporting and enhancing the McNab/Braeside Fire Department firefighter wellness program, critical incident stress management program, and post-traumatic stress disorder program.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Ongoing
13-1	Fire Prevention and Public Education	The Fire Chief should continue to review the findings of the 2024 McNab/Braeside Community Risk Assessment periodically and analyze which emergencies the township has recently experienced. The Fire Chief should then update the McNab/Braeside Fire Department's public education program to prioritize the risks that McNab/Braeside is most likely to face in the future.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
14-2	Training and Certifications	The Fire Chief should continue to work with third-party companies and regional training centres to help the McNab/Braeside Fire Department's officers and firefighters complete their required training and obtain their applicable certifications before the legislated compliance deadlines.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term
14-3	Training and Certifications	The Fire Chief should continue to work with the McNab/Braeside Human Resources Department to develop a process/program for ensuring that all firefighters of the McNab/Braeside Fire Department complete their provincially mandated training.	Mandatory: Yes Council approval: No Budget impact: No Timeframe: Short-term

Rec. #	Section	Recommendation	Considerations
15-1	Performance Standards	The Fire Chief should continue to monitor the McNab/Braeside Fire Department's effective response force in order to determine whether the fire department needs to increase its staffing levels (specifically for responses during daytime hours).	Mandatory: No Council approval: No Budget impact: No Timeframe: Ongoing
16-3	Fire Station Assessments	Council should use the regular budgeting process to provide the McNab/Braeside Fire Department with annual funding that can be used to complete maintenance work that is necessary to ensure all fire stations in the community reach their life cycle expectancy.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term
17-1	Water Supply	The Fire Chief should continue with efforts to expand the dry hydrant program in McNab/Braeside in order to ensure that dry hydrants are installed in strategic locations throughout the township. Doing so will help ensure the McNab/Braeside Fire Department has access to a reliable water supply for emergency response purposes. This initiative should be supported by Council through the budget process.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Ongoing
18-1	Asset Management	The Fire Chief should continue to work with the McNab/Braeside Finance Department to review and modify the township's capital expense reserve plan. The plan should allocate funds to replace vehicles in the McNab/Braeside Fire Department's fire fleet that have reliability issues or have exceeded their recommended life cycles.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term
18-3	Asset Management	The Fire Chief should continue to research various fire department dispatch centres in Ontario and then prepare a report that summarizes their services and costs. At the end of the report, the Fire Chief should identify which dispatch centre is best suited to the needs of the McNab/Braeside Fire Department. The Fire Chief should then submit the report to Council for consideration and approval.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term

Rec. #	Section	Recommendation	Considerations
19.1	Records Management System	The Fire Chief should continue to research current types of records management systems in order to identify a system that can meet the needs of the McNab/Braeside Fire Department. The system would provide the department with improved technology that can be used for data collection and reporting. The Fire Chief should then prepare a report that supports purchasing the applicable records management system, submitting the completed report to Council for consideration and approval.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term

Table 3. List of recommendations (completed).

Rec. #	Section	Recommendation	Considerations
13-3	Fire Prevention and Public Education	The McNab/Braeside Fire Department should hire a full-time deputy chief. The deputy chief should manage various programs (including fire prevention, code enforcement, and fire investigation programs) and assist the Fire Chief with administrative tasks (such as managing the training program). This recommendation was approved as part of McNab/Braeside’s 2025 budget, and the recruitment process has begun.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term
18-2	Asset Management	The McNab/Braeside Fire Department should replace its 1996 Spartan pumper and 1996 Top-kick pumper as soon as possible to address issues related to safety, performance, reliability, and operational efficiency. This recommendation was approved, and the necessary purchases were included in McNab/Braeside’s 2025 budget. Delivery is expected between July and August 2025.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term
18-4	Asset Management	The McNab/Braeside Fire Department should replace its radio system. This recommendation was approved, and the necessary purchases were included in McNab/Braeside’s 2025 budget. Implementation of the new system is scheduled for April 2025.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Short-term

Rec. #	Section	Recommendation	Considerations
19-2	Records Management System	The Fire Chief should work with the CAO to explore whether it is possible to provide the McNab/Braeside Fire Department with administrative assistance. Specifically, the fire department would benefit from having a qualified individual manage its records management system. This recommendation was approved in late 2024. The part-time position was filled in February 2025.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term

1.0 Introduction

1.1 Context 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, a fire master plan includes recommendations designed to enhance the fire department's operations.

The goal of a fire master plan is to provide information that a fire department can use to:

- 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, a fire master plan 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 McNab/Braeside

1.2.1 Project Background

The Loomex Group was contracted to complete an FMP that McNab/Braeside and its fire department can use to make policy, capital, and organizational changes over a ten-year timeframe.

The scope of this FMP encompasses a review of the Department from legislative, administrative, and operational perspectives. A review of the community's past, current, and anticipated fire protection needs was also completed.

All reviews conducted during the FMP's development—as well as the observations, findings, and recommendations provided in this FMP document—were completed by a project team that consisted of industry specialists from The Loomex Group.

1.2.2 Approach and Methodology

Start-Up Meeting

The Loomex Group began the FMP project by meeting with Fire Chief Dave Hartwick and Acting Fire Chief Jeff Crawford. During this initial meeting, the project team, Fire Chief, and Acting Fire Chief reviewed the project's work scope and framework.

Following the start-up meeting, The Loomex Group developed a finalized version of the project framework, which the Fire Chief reviewed and approved.

Stakeholder Engagement

After the project framework was approved by the Fire Chief, The Loomex Group held engagement sessions with the following stakeholders:

- CAO Lindsay Lee
- Fire Chief Dave Hartwick
- Acting Fire Chief Jeff Crawford
- officers and firefighters of the McNab/Braeside Fire Department

Document Reviews

The Loomex Group reviewed various administrative, legislative, and operational documents about McNab/Braeside and the Department, including:

- applicable legislation, by-laws, and agreements
- municipal maps
- operating and capital budgets
- organizational charts
- current fire protection services, policies, and standard operating guidelines (“SOGs”)

Site Visits

Representatives of The Loomex Group spent time in McNab/Braeside to observe the community’s demographics firsthand.

Engagement with Fire Service Personnel

The Loomex Group facilitated a SWOT analysis session with the Department’s personnel to gather their opinions about the Department’s operations, organizational structure, and current and anticipated needs.

1.2.3 Drafting the Fire Master Plan

Developing the Fire Master Plan

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

The project team considered several key questions while developing the initial draft of the FMP, such as:

- 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 regarding 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.

1.2.4 Finalizing the Fire Master Plan

The Loomex Group will issue copies of the finalized FMP to the Fire Chief and the CAO of McNab/Braeside. The Loomex Group will then meet with Council to present highlights and recommendations from the finalized document.

1.2.5 Document Structure

For ease of understanding, most sections of this FMP are structured as follows:

- **Overview:** Applicable sections of this FMP begin with a brief overview of the topic that will be discussed.
- **Context and Findings:** The topics that are discussed in this FMP are divided into "context" and "findings."
 - The "context" information explains the background, applicable industry standards, and importance of the topic at hand.
 - The "findings" information explains how the topic at hand is applicable to the Department and the McNab/Braeside community.
- **Recommendations:** Applicable sections of this FMP conclude by providing McNab/Braeside with a list of recommendations that relate to the topics discussed above.
 - The recommendations provided in this FMP include strategies related to governance, service levels, and personnel.
 - The recommendations are designed to help McNab/Braeside enhance community safety for its residents, visitors, and businesses.

2.0 Community Demographics

2.1 Overview of the Township of McNab/Braeside

McNab/Braeside is an Eastern Ontario township in Renfrew County located on the south shore of the Ottawa River. The Madawaska River also passes through the town.

McNab/Braeside came into existence on January 1, 1998, when the Village of Braeside amalgamated with McNab Township. McNab/Braeside comprises the following communities:

- Braeside
- Burnstown
- Clay Bank
- Clay Valley
- Dewars
- Glasgow Station
- Goshen, Lochwinnoch (partially)
- Lundys Corners
- Pine Grove
- Sand Point
- Stewartville
- Rhoddy's Bay
- Waba
- White Lake

According to McNab/Braeside's official website, the township "offers a rural lifestyle along with cultural amenities. Made up of quaint villages and hamlets, residents and visitors alike enjoy all that the township's natural landscape has to offer — from swimming, boating, fishing, rowing, canoeing/kayaking in the summer, to snowmobiling, ice fishing and skiing in the winter — as well as close proximity to small-town shops and big-city attractions."²

Figure 1 illustrates the municipal borders of McNab/Braeside.

² <http://www.mcnabbraeside.com/live-here>

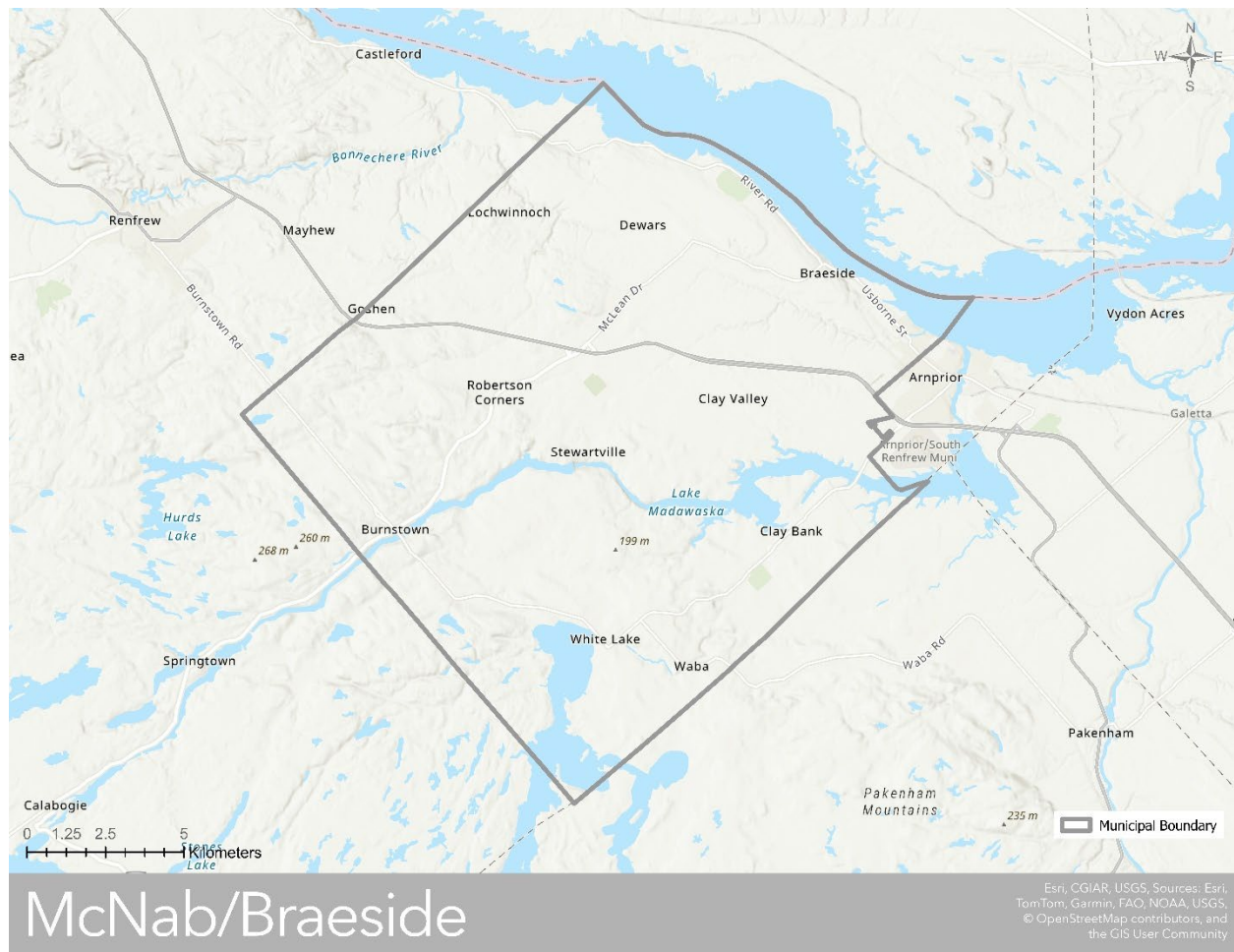


Figure 1. Municipal borders of McNab/Braeside.

2.2 Number of Permanent Residents

According to the 2021 Statistics Canada census, McNab/Braeside has a population of 7,591 year-round residents. This number is 5.8 per cent higher than the number of residents recorded in the 2016 census.

2.3 Seasonal Residents and Tourists

Historically, McNab/Braeside has a small influx of seasonal residents during the summer months. The seasonal residents come to the area and stay in one of the township's 168 seasonal dwellings. Such influxes significantly increase the number of residents living in the township during certain times of the year.

As a result of additional residents in the community, the Department may see an increased number of calls for assistance, which has the potential to strain the organization's available resources.

2.4 Age Distribution

Table 4 compares the age distribution in McNab/Braeside to the Province of Ontario (based on the findings of the 2021 Statistics Canada census).

Table 4. Age distribution in McNab/Braeside and the Province of Ontario.

Age Range	McNab/Braeside	Ontario
0 to 14 years	15.0%	15.8%
15 to 64 years	63.1%	65.6%
65 years and over	22.0%	18.5%
85 years and over	1.6%	2.4%

Based on the census data:

- The average age in McNab/Braeside is 44.5 (compared to the provincial average of 41.8).
- The median age in McNab/Braeside is 48.0 (compared to the provincial median of 41.6).

2.5 Language and Cultural Considerations

It is essential for fire departments to incorporate language and cultural considerations into their community programs and services.

From a communications perspective, fire departments should note that not all residents speak English as their first language. This means fire prevention and public education materials must account for possible language barriers.

Language

According to the 2021 Statistics Canada census, McNab/Braeside is a predominantly English-speaking community, with 94.7 per cent of residents identifying English as their first language. Overall, 99.9 per cent of the township's residents can hold a conversation in English, and 10.5 per cent are bilingual in English and French.

Indigenous Population

According to the 2021 Statistics Canada census, 7.2 per cent of McNab/Braeside's residents identify as Indigenous. Those residents identify as First Nations, Métis, Inuk, and/or as part of another Indigenous group not listed.

2.6 Level of Education

Table 5 compares the highest level of education among McNab/Braeside's residents to the provincial average (based on the findings of the 2021 Statistics Canada census).

Table 5. Education levels in McNab/Braeside and the Province of Ontario.

Education Level	McNab/Braeside	Ontario
No certificate	12.1%	15.3%
High school diploma or equivalency	32.4%	27.2%
Post-secondary certificate, diploma, or degree	55.4%	57.5%

2.7 Future Development in McNab/Braeside

Section 4 of the 2024 McNab/Braeside Community Risk Assessment includes a range of information about the building stock in McNab/Braeside. This information includes an overview of the building developments that are planned in the township over the coming years.

Table 6 summarizes the future building developments that are planned for McNab/Braeside over the coming years.

Table 6. Planned building developments in McNab/Braeside.

Name	Type	# of Units
Braeburn Estates: Phase 3	Residential	15
Hidden River Estates (draft concept)	Residential	100
Greater Madawaska: River Lane Estates	Residential	26
Hogan Heights: Phase 2	Residential	41
Madawaska Lake Estates	Residential	10
Madawaska Shores: Phase 2	Residential	10 single family dwellings 37 condominium lots
River Road Estates	Residential	23
White Lake	Residential	88
Russett Arnprior	Industrial	18

As the new building developments are completed, McNab/Braeside will need to update its list of building stock to ensure it remains current.

In addition, the planned expansion of Highway 17 may lead to additional growth and development within McNab/Braeside.

The Department must also keep itself aware of all new buildings in the community. This responsibility includes completing inspections and updating types and levels of service as needed.

2.8 Potential Fire Protection Concerns

Number of Residents

- The proposed building developments that are planned for McNab/Braeside will likely increase the size of the township's population.
- If new residents move to the community as a result of the planned building developments, McNab/Braeside's demographics may change.
 - In order to ensure the Department's services are applicable to all residents, the township and the Department should review section 6 of the 2024 McNab/Braeside Community Risk Assessment when it is time to conduct strategic planning. This section contains the demographic profile for McNab/Braeside, which should be updated (as needed) if any significant changes take place.
 - If there are any changes to McNab/Braeside's demographics, the Department may want to review its staffing levels and services—as well as the locations of its fire stations—to identify opportunities to enhance community safety.

Age of Population

- Because McNab/Braeside has an older population, the township may experience a higher-than-average number of calls for pre-hospital medical services.
- The Department may experience low recruitment levels, as older residents are less likely to enlist as volunteer firefighters.
- According to the 2021 Statistics Canada census, 22.0 per cent of McNab/Braeside's population is over the age of 65. The Department must keep this statistic in mind when it is developing fire prevention and public education programs. Some older residents do not use newer methods of communication (such as social media), and they rely on traditional forms of communication (such as newsletters) to receive information. If the Department only uses newer communication methods to deliver public education, some residents may not receive important messages.

3.0 Overview of the Fire Department

3.1 Organizational Structure and Staffing Levels

Organizational Structure

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

Figure 2 shows the Department's current organizational structure (as per By-law No. 2018-68).

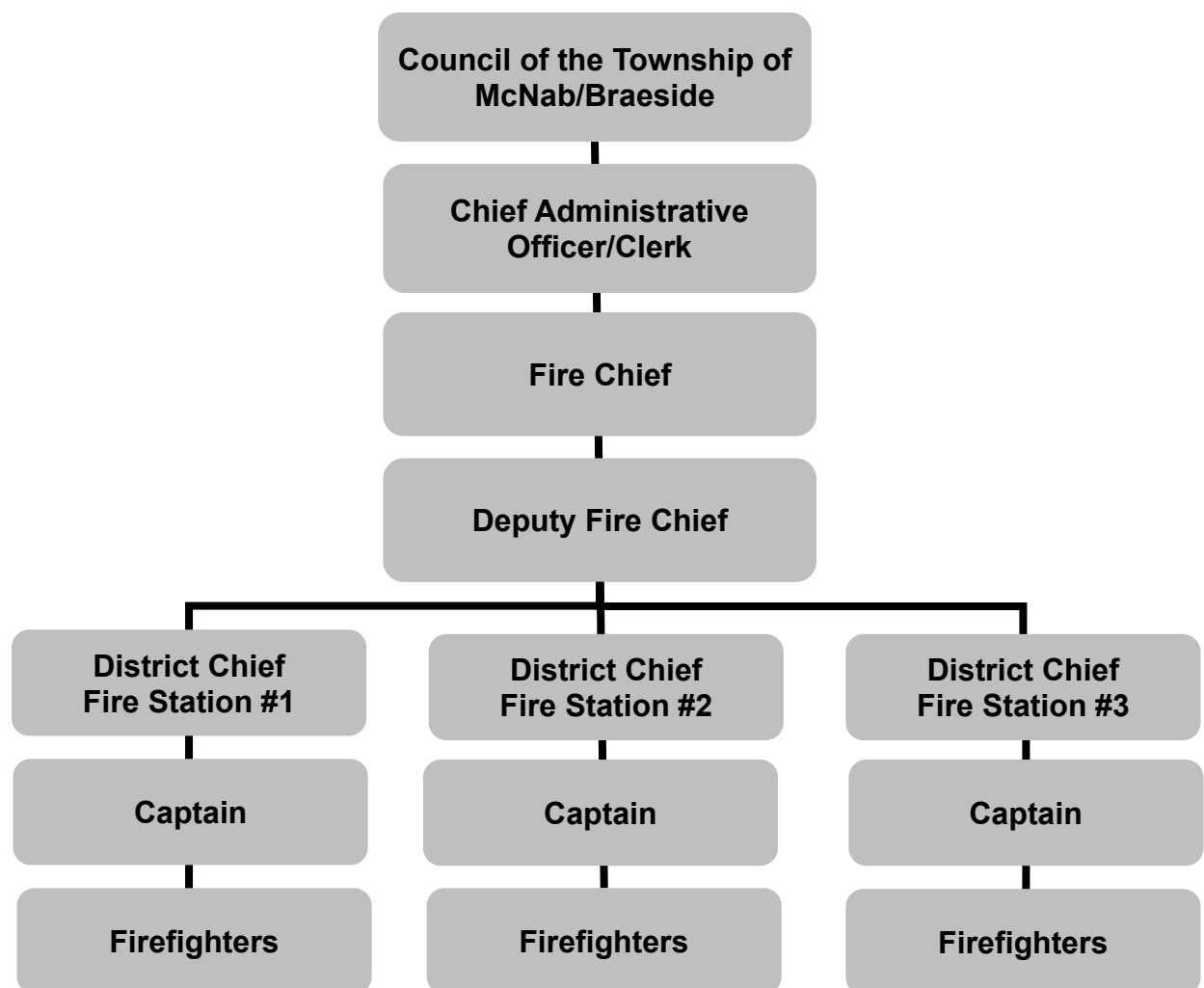


Figure 2. Organizational structure of the McNab/Braeside Fire Department.

Current Staffing Levels

The Department consists of the following personnel:

- 1 full-time Fire Chief
- 3 volunteer district chiefs
- 2 volunteer captains
- 1 volunteer safety officer
- 1 volunteer lieutenant
- 33 volunteer firefighters

3.2 Fire Station Locations

The Department currently operates three fire stations. These fire stations are located at the addresses listed below.

Fire Station 1 – Glasgow

2494 Russett Drive
Arnprior, ON
K7S 3G8

Fire Station 2 – White Lake

142 Burnstown Road
White Lake, ON
K0A 3L0

Fire Station 3 – Braeside

912 Centre Street
Braeside, ON
K0A 1G0

The fire station locations provide the Department with timely access to various parts of the McNab/Braeside community. The driving distance between the three stations is approximately 12 kilometres.

The map shown in Figure 3 illustrates where the Department's fire stations are located within McNab/Braeside's municipal borders.

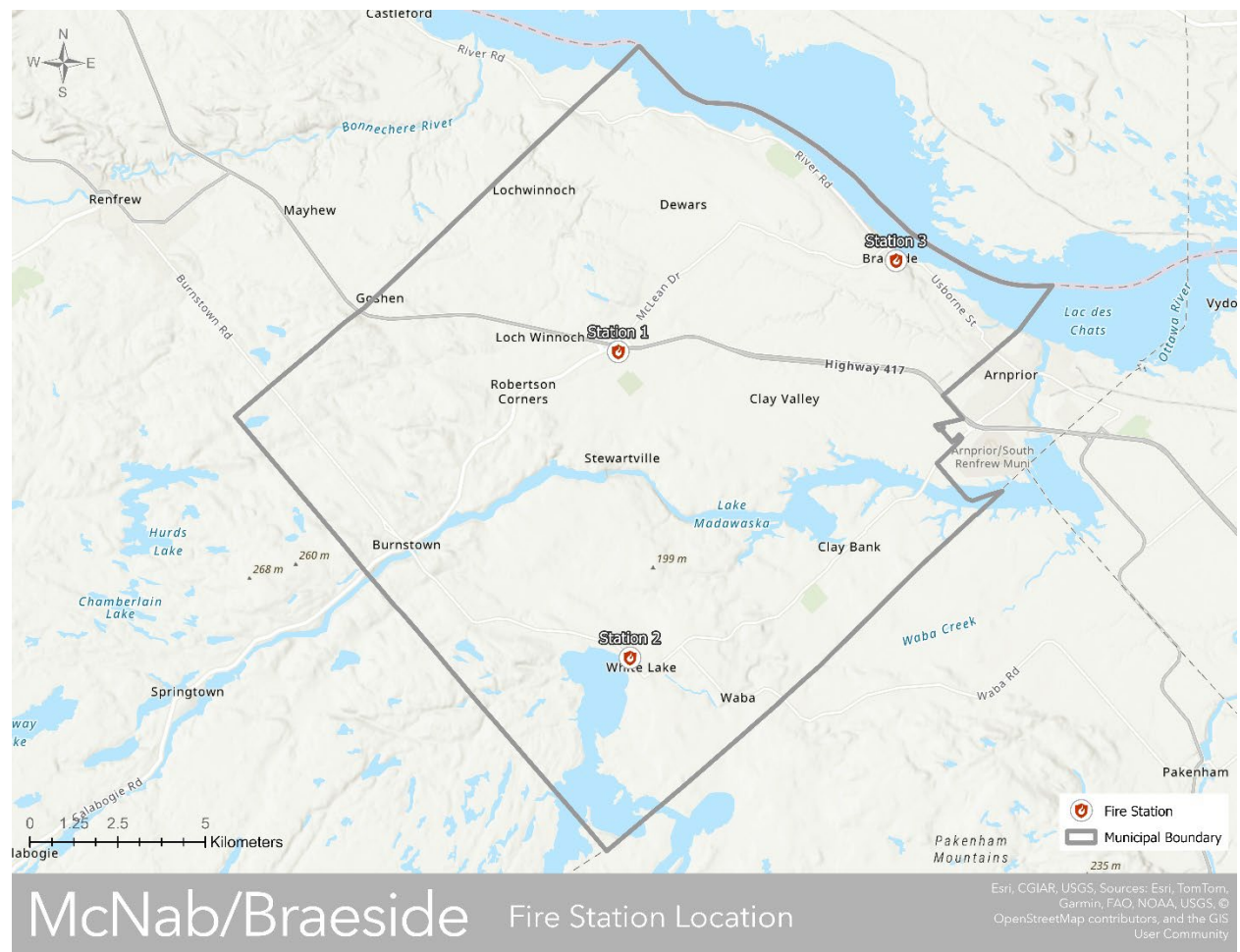


Figure 3. Location of fire stations in McNab/Braeside.

3.3 Roles and Responsibilities

3.3.1 Fire Chief

In addition to handling the overall management of the Department, the Fire Chief's main responsibilities are as follows:

- Develop, forecast, and implement annual departmental goals and objectives.
- Provide Council, the CAO, and township staff with advice and recommendations.
- Oversee firefighter recruitment and retention initiatives.
- Supervise fire suppression duties, emergency responses, and the management of staff.
- Oversee fire prevention, public education, and training management initiatives.
- Monitor the Department's services to ensure they remain aligned with McNab/Braeside's corporate customer service values and standards.

The Fire Chief is also responsible for collaborating with other emergency response agencies and municipal departments (as per applicable legislation, corporate policies and procedures, and by-laws).

3.3.2 District Chiefs

The Department currently has three district chief positions. (Ideally, the Department assigns one district to each of its fire stations.) The district chiefs are volunteers within the organization, and they serve as a vital link between the Department's leadership team and the firefighters.

Each district chief has the following responsibilities:

- Supervise the captains and firefighters under their command.
- Supervise the activities at their station, including all emergency operations.
- Assist the Fire Chief (as needed) to help the Department operate effectively and comply with all applicable policies and legislation.
- Deliver all fire suppression duties necessary to save life and property.
- Participate and assist in the Department's training programs.

3.3.3 Captains

The Department has two station captains and one vacant captain position. (Ideally, the Department assigns one captain to each of its fire stations.) The station captains are volunteers within the organization, and they serve as a vital link between the Fire Chief and the district chiefs and firefighters at their stations.

Each captain has the following responsibilities:

- Complete the fire suppression duties necessary to save life and property.
- Help train other firefighters in the Department.
- Supervise the firefighters under their command, including during emergency operations.
- Assist the Fire Chief and the district chiefs (as needed) to help the Department operate effectively and comply with all applicable policies and legislation.
- Participate in the Department's training programs. (This duty includes assisting with the facilitation of the training programs.)

In addition to captains, the Department has assigned a lieutenant role at two of its fire stations. (One position is currently vacant). The lieutenants help the captains and district chiefs run the stations, and they can act in a supporting role in the absence of a station captain.

3.3.4 Firefighters

The Department's fire suppression division comprises firefighters from all three of the organization's fire stations. As of this FMP, the fire suppression division consists of 40 volunteer officers and firefighters (excluding the Fire Chief). The Department strives to run with a complement of 45 staff members (or 15 members per station).

The firefighters have the following responsibilities:

- Complete the fire suppression duties necessary to save lives and property.
- Operate the firefighting equipment associated with controlling and extinguishing fires.
- Conduct station maintenance and general upkeep on the Department's firefighting equipment and property.
- Upgrade and maintain the skills, knowledge, and physical requirements that are applicable to current fire service standards.
- Participate in public education initiatives and community events.

3.3.5 Observations Regarding Current Roles and Responsibilities

The Department has experienced staff turnover at each of its fire stations. In response to this turnover, in 2024, the Fire Chief facilitated a selective recruitment drive to bring new personnel into the organization. This initiative resulted in the hiring of 11 new firefighters spread between the Department's three stations. In the selection and orientation process, the Department managed to replace 27 per cent of its volunteer staff members (including many with current fire service certifications).

All fire departments are impacted by staff turnover. However, the impacts are especially challenging for fire departments that are at risk of experiencing a single-point-of-failure scenario. A single-point-of-failure scenario results when an excess number of duties are assigned to a single individual due to a lack of staff members within an organization. In the fire service, the additional duties are typically assigned to a fire chief. When a single-point-of-failure scenario occurs, a fire chief may not have enough time to devote to strategic planning or safety and security concerns.

During its review, The Loomex Group noted that the Department lacked support for the Fire Chief at the administrative level. The organization also needed a deputy chief position. Since the review began, the organization has hired an administrative support staff member and is in the process of hiring a deputy chief. Adding administrative support staff and a deputy chief should enhance the Department's ability to maintain record-keeping practices, support ongoing recruitment, retention, and training initiatives, and support emergency response efforts. The additional staff members should also enhance the Department's leadership and provide succession planning opportunities.

4.0 Legislation and Standards

4.1 Overview of Legislation and Standards

Legislation

In Ontario, fire departments must operate in accordance with numerous acts and other types of legislation, including the following:

- 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**”)
- applicable municipal by-laws

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

Industry Standards

The following industry standards and guidelines also influence how fire departments operate:

- National Fire Protection Association (“**NFPA**”) standards
- Ontario Fire Marshal (“**OFM**”) Public Fire Safety Guidelines
- Ontario Fire Service Health and Safety Committee Firefighter Guidance Notes (also known as the Section 21 Guidance Notes)

The information and recommendations outlined in the resources listed above provide benchmarks that fire departments should use to gauge the effectiveness of their operations and safety initiatives.

4.2 Legislative Compliance in McNab/Braeside

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 7 lists some of the legislative requirements that all fire departments and municipalities must meet. The table indicates whether McNab/Braeside and the Department are compliant with the stated requirements.

Table 7. 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
OFC, Div. B, 1.1	Implement a smoke/CO alarm program.	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, the Department is currently compliant with the applicable FPPA requirements.

Going forward, Council and the Department need to continue allocating the time and resources required to meet their legislative obligations.

4.3 Recommendations

There are no recommendations regarding legislation and standards.

5.0 By-laws

5.1 Overview of By-laws

In Ontario, a by-law is a municipal law passed under the authority of the Municipal Act.

Municipalities can use by-laws to formalize their municipal services, day-to-day operating protocols, and by-law enforcement procedures.

5.1.1 Importance of By-laws

In 1989, the Supreme Court of Canada (“**SCC**”) made a landmark decision about municipal liability.

Prior to the 1980s, municipalities and fire departments were largely considered free from civil liability for firefighting efforts. However, the SCC revised this position due to the case of *Laurentide Motel Ltd. v. Beauport*. A summary of the Supreme Court Judgments reads as follows:

A client’s negligence led to a fire that damaged the appellants’ hotel complex in the city of Beauport. As soon as they arrived, the firefighters sprayed water from the fire truck onto the fire, but the water soon ran out owing to the impossibility of connecting with the hydrants. The latter [...] were unusable because they were frozen or broken. It was not until some forty minutes later that water was finally obtained from the hydrants. The appellants brought an action for damages against the person who had set the fire and the respondent, alleging fault by the latter in fighting the fire, namely that its equipment had not been maintained and did not function properly, as well as fault by its employees in the performance of their duties.³

As the excerpt shows, the case summary identified water supply and negligent firefighting as crucial issues. Although a guest in the Beauport motel caused the fire, the city’s failure to maintain and operate effective fire protection services meant that Beauport was partially responsible—and therefore liable—for most of the ensuing costs. The SCC ruled that Beauport had to pay over \$500,000 in damages (plus interest).

An important aspect of the case was the distinction between policy decisions and operational decisions. As an elected body, a municipal council should communicate its decisions using methods that citizens can access (such as by-laws or news reports). Because municipal councillors make their decisions readily available, the SCC determined that those decisions are mostly free from liability. Moreover, if the majority of citizens are unhappy with the decisions of their councillors, they have the chance to elect new councillors when it is time for council re-election.

³ *Laurentide Motels Ltd. v. Beauport (City)*, 1 SCR 705 (1989).

Unlike municipal councils, fire departments do not necessarily relay their decisions to the public in formats that are easily accessible. As a result, citizens may not have a chance to question decisions that could adversely affect them.

Following the *Laurentide Motel Ltd. v. Beauport* ruling, many municipalities have updated their fire protection by-laws. The revisions give municipal councils the authority to make decisions about their local fire protection services (rather than leaving those matters exclusively to the fire departments). As a result, residents can familiarize themselves with the specific fire protection services they can expect their fire departments to provide.

5.2 Establishing and Regulating By-law

Context

An establishing and regulating by-law (“**E&R by-law**”) specifies which services a fire department must deliver to its community, as well as the level of service the local firefighters must provide.

In order to develop an E&R by-law, a fire chief must assess the risks, needs, and circumstances of its community and make recommendations to the municipal council for the development of the by-law. The council will use the Fire Chief’s recommendations to determine the level of service it wants to provide for the community.

Once a municipal council formalizes its E&R by-law, the councillors and the local 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 by-law each time there is a change to the local fire department’s structure, services, or operations (for both emergency and non-emergency services).

Findings

As of this FMP, the E&R By-law for McNab/Braeside is By-law No. 2018-68, “Being a By-law To Establish And Regulate a Fire Department For the Township of McNab/Braeside.”

By-law No. 2018-68 establishes several important pieces of information, such as:

- the Council-approved level of service that the Department must provide
- the fees and charges that are associated with the use of various services (including fire protection services) and municipal properties
- the pay structure for the volunteer fire service in McNab/Braeside (which is indicated in Appendix C of the document)

By-law 2018-68 requires the Department to provide the core services listed below.

Fire Prevention and Public Education

- Facilitate a smoke alarm program.
- Help local schools facilitate fire safety programs.
- Facilitate the Older and Wiser program for elderly residents.
- Mail safety brochures to residents alongside tax notices.

Code Enforcement

- Educate all staff members that issue permits.

Fire Code Enforcement

- Issue burning by-laws and permits.
- Conduct residential inspections (upon complaint).
- Conduct business inspections (upon request).
- Conduct smoke alarm inspections (with an emphasis on fire prevention and education).
 - Enforce the Fire Code as it relates to smoke alarms (as a last resort).

Emergency Response (Core Services)

- Provide fire suppression services (including interior and exterior structural attack).
- Provide auto extrication services (including heavy rescue).
- Conduct hazardous material responses (at the awareness level).
- Conduct water/ice rescues (specifically level 1 shore-based rescues).

Although By-law No. 2018-68 indicates which services the Department must provide, the by-law does not specify a level of service for those functions. Going forward, Council should consider updating the E&R by-law to specify a level of service for all the Department's operations. Doing so has many potential benefits. For example, when the E&R by-law is being updated, the Department may be able to identify gaps in its training program. If there are any gaps, Council can set a level of service for the Department's operations, and then the firefighters can focus on obtaining the NFPA certifications that are applicable to them. Maintaining the appropriate certifications will also help keep the Department compliant with new legislative requirements.

It is also worth noting that the current version of the E&R By-law was approved in 2018. (However, it appears that the Department prepared a new draft of the E&R by-law in 2022.) As part of this FMP project, The Loomex Group will prepare a new E&R by-law for Council's review and approval. As a best practice, Council should update the township's E&R by-law each time a change to the Department's structure or operations is approved. Doing so will help keep the content of the by-law relevant.

5.3 Other Fire Protection By-laws

Context

In addition to an E&R by-law, a municipal council may pass other fire protection by-laws, such as:

- open-air burning by-laws
- false alarm by-laws
- firework by-laws
- fire route by-laws

Some municipalities also have fire protection by-laws that outline their service agreements, such as mutual aid and automatic aid agreements. For more information about fire service agreements, see section 6 of this FMP.

Findings

Table 8 lists the current Council-approved fire protection by-laws in McNab/Braeside.

Table 8. Current fire protection by-laws in McNab/Braeside.

By-Law Number	By-law Name
By-law 2017-05	Being a By-law to authorize the Municipal Forest Fire Management Agreement between Her Majesty the Queen in right of Ontario as represented by the Minister of Natural Resources and Forestry and the Corporation of the Township of McNab/Braeside
By-law 2019-62	Being a By-law to adopt an Emergency Management Program and Emergency Response Plan and to meet other Requirements under the Emergency Management and Civil Protection Act
By-law 2021-46	Being a By-law to amend the fire protection agreement between McNab/Braeside and the Township of Lanark Highlands
By-law 2024-17	Being a By-law to Establish Fees and Charges for services or use of municipal property

By-Law Number	By-law Name
By-law 2018-30	Being a By-law to provide for the participation of the McNab/Braeside Fire Department in the Renfrew County Mutual Aid Plan

Upon review, the current fire protection by-laws in McNab/Braeside appear applicable to the Department's services and the community's needs. In order to ensure that the agreements remain current, the Fire Chief should develop a schedule for reviewing all of the Department's by-laws on a regular basis. If any by-laws need to be updated, the Fire Chief should make the necessary changes and then submit the revised by-laws to Council for consideration and approval.

5.4 Recommendations

Recommendations regarding by-laws in McNab/Braeside are as follows:

- 5-1. The Fire Chief should review all current by-laws pertaining to the McNab/Braeside Fire Department, updating them as required. All updated by-laws should be submitted to Council for consideration and approval.
- 5-2. The Fire Chief should develop a schedule for reviewing all by-laws pertaining to the McNab/Braeside Fire Department. These reviews should take place on a regular basis.

6.0 Fire Service Agreements

6.1 Overview of Fire Service Agreements

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.

Each type of fire service agreement has different requirements that must be met. These requirements are outlined in the public fire safety guidelines developed by the OFM.

6.2 Mutual Aid Plans

Context

The OFM legislation regarding mutual aid is Public Fire Safety Guideline 04-05-12.

According to the OFM, 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.”

Findings

As of this FMP, the Department is a member of the Renfrew County Mutual Aid Plan.

6.3 Automatic Aid Agreements

Context

The OFM legislation regarding automatic aid is Public Fire Safety Guideline 04-04-12.

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

Findings

As of this FMP, McNab/Braeside has an agreement with Lanark to provide fire protection.

6.4 Fire Protection Agreements

Context

The OFM legislation regarding fire protection agreements is Public Fire Safety Guideline 04-09-12.

According to the OFM, 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 enter into 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 9 summarizes McNab/Braeside's current fire protection agreements.

Table 9. Current fire protection agreements in McNab/Braeside.

Agreement Number	Participating Agency	Scope of Agreement
By-law No. 2021-46	Lanark Highlands	This by-law authorizes McNab/Braeside to supply fire protection services in a specified portion of Lanark Highlands.
By-law No. 2019-23	Ontario Power Generation Inc.	This by-law authorizes McNab/Braeside to occupy a portion of land on a non-exclusive basis for the purposes of erecting, maintaining, training, and operating a dry hydrant and associated equipment.
By-law No. 2017-05	Ministry of Natural Resources	This by-law authorizes the Ministry of Natural Resources to provide fire management services for a specified fire protection area.

The current fire service agreements for McNab/Braeside were written at various times over the last eight years. Given the age of the agreements, the Fire Chief should engage in discussions with the applicable external partners in order to verify that the agreements are current and meet the needs of both the Department and the participating agencies. The discussions can also be used to establish an understanding regarding the level of participation that is expected of all parties participating in the agreements.

6.5 Recommendations

Recommendations regarding fire service agreements in McNab/Braeside are as follows:

- 6-1. McNab/Braeside should continue to work with its partners in Lanark Highlands, Ontario Power Generation, and the Ministry of Natural Resources to update all applicable agreements and by-laws to ensure they are current. Once the agreements are updated, they should be reviewed on a regular basis.

7.0 Recruitment and Retention

7.1 Overview of Recruitment and Retention

In the context of the fire service:

- Recruitment refers to initiatives and programs designed to attract qualified personnel who may be interested in joining their local fire department.
- Retention rates refer to the number of firefighters who remain with their fire department for an extended period.

Good recruitment and retention levels are the cornerstones of a volunteer fire services provider. Without an adequate number of staff, a fire department will likely be unable to provide safe, effective services to its community.

In order to maintain good recruitment and retention levels, it is critical for volunteer fire departments to have the necessary tools, information, and support.

7.2 Recruitment and Retention Challenges

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. This rate of turnover means that a complete turnover of volunteer personnel is possible within five to ten years.

Due to poor retention rates, many fire departments must spend significant amounts of time and money recruiting and training new volunteers. Because these firefighters will 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 10 lists some of the challenges associated with recruiting and retaining volunteer fire service personnel. This table is a direct excerpt from the article “Where Are They Going?” written by Deputy Chief Ian Shetler for the Association of Municipal Managers, Clerks, and Treasurers of Ontario.⁴

⁴ Shetler, “Where Are They Going?”

Table 10. Recruitment and retention challenges for volunteer fire departments.

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 department (administrative, fund-raising, etc.)
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

Like many fire departments, the Department has faced challenges with firefighter recruitment. Many of these challenges stem from the trends identified in Table 10. In response to recruitment challenges, the Department has taken the time to analyze and document information about individuals who have considered joining the organization.

The following subsections summarize the Department's current recruitment process, as well as some of the recruitment and retention challenges faced by the Department and strategies to address them.

7.2.1 Current Recruitment Process

The Department's current recruitment process is as follows:

1. Identify the need to recruit/replace firefighters in the organization well in advance. This step of the recruitment process also involves identifying which fire station (or stations) will require replacement firefighters.
2. Identify individuals who have previous fire service experience or the requisite qualifications to fill the required position.
3. Inform all potential recruits about the time commitment they will each need to dedicate to learning their duties if they are not already certified (or if they require additional certifications, such as a DZ licence).
4. Clearly outline the full recruitment and onboarding process, including the firefighter orientation process and associated time commitments. An explanation of the Department's core services should also be provided.
 - a. Adequate supervision and leadership of the recruits will be required throughout this process.
5. Provide all candidates with an opportunity to succeed while respecting the following three-phased approach:
 - a. Phase 1 – This phase involves a skills assessment, job-related abilities and testing assessment, and a physical aptitude evaluation and assessment.
 - b. Phase 2 – This phase involves a formal interview process conducted by a fire panel. The fire panel will score candidates based on their responses and achievements.
 - c. Phase 3 – This phase involves the use of a ranking system to review the scores assigned to the candidates. If a candidate has achieved a requisite score, they will be presented with a conditional offer to serve at the selected fire station. The candidates will then be required to submit a variety of documents to the Department (including applicable medical forms, a vulnerable sector check, and a driver's abstract from the Ministry of Transportation).

Once a candidate has been approved, they will be processed and placed into the Department's recruit training program for probationary firefighters.

During the Department's most recent recruitment initiative, the Fire Chief recruited qualified candidates without any major challenges (other than the time commitment required to facilitate the intake, orientation, and interview processes). Overall, the Department considered the initiative a success, as the Department replaced approximately 27 per cent of its volunteer workforce. In total, 11 new firefighters completed the orientation and interview process. Nine of these recruits were already certified to the level of NFPA 1001, Firefighter I and II. As a result, the Department avoided the level of training and testing usually required to certify new firefighters.

7.2.2 Challenges

Recruitment drives tend to place considerable demands on fire departments. These demands include the time involved in completing the selection process and related administrative tasks, as well as the availability of fire staff to deliver recruit training and oversee the recruit certification process.

As of this FMP, the Department does not have enough firefighters to maintain its ideal staffing level of 15 firefighters per station. Currently, the Department needs five more firefighters to meet its intended staffing target of 45 firefighters. The Fire Chief has also advised that the actual number of firefighters per station is fluid, as some individuals may relocate to other stations in the near future. Over the coming months, the Department plans to assess the staffing requirements at each of its fire stations.

7.2.3 Strategies

Firefighter Engagement

In order to be successful, recruitment and retention programs need to incorporate suggestions from current firefighters. Those firefighters are likely to understand the successes, gaps, and issues associated with those programs, and they should be encouraged to share their knowledge. Establishing a working committee is a good way to involve current firefighters in the recruitment and retention process, which should bolster the strength of the associated programs.

The Department should also monitor and review the various reasons that personnel leave the organization. (Some of the reasons may align with the factors identified in Table 10.) One way to determine the reason for a firefighter's departure is to conduct an exit interview. By determining the underlying cause of a departure, the Fire Chief can determine whether the Department could have taken steps to retain the exiting staff member. However, the reason for a firefighter's departure may be outside the scope of the Fire Chief's control.

The Department should also hold regular sessions with officers and firefighters to maintain an open channel of communication. Regular meetings can provide opportunities for the Fire Chief to recognize and respond to issues that might lead to a firefighter's departure.

New Retention Initiatives

As a result of the Department's current staffing levels, it may be challenging to ensure that each station has 15 firefighters as intended. Although the Department's most recent recruitment initiative was successful, not all recruitment drives attract an adequate number of firefighters. As such, the Department should continue to seek new ways to retain its current volunteer firefighters, and Council should support those initiatives.

Going forward, the Fire Chief and Council should consider supporting the Department's firefighters in the following ways (as applicable):

- Increase compensation.
- Offer additional benefits.
- Use local media campaigns, municipal websites, and social media platforms to publicly recognize the Department's firefighters.
- Continue to organize social events and firefighter appreciation nights to enhance relationships between firefighters, boosting camaraderie and morale within the Department.
- Continue to allow existing firefighters to apply for municipal positions via internal job postings.
- Offer reduced rates at local fitness facilities to support local businesses and provide firefighters with an affordable means of keeping fit.

Although these retention strategies are likely to increase costs in the short term, investing in the Department's current staff members can reduce future costs. For instance, there are significant costs associated with recruitment drives, recruit training, and certification. In addition, when experienced firefighters leave the Department, the overall safety of firefighters and the community may decrease.

Initiatives to increase retention are also likely to make a job with the Department more attractive to potential firefighters. This scenario may help the Department maintain consistent recruitment levels.

7.3 Recommendations

Recommendations regarding recruitment and retention in McNab/Braeside are as follows:

- 7-1. McNab/Braeside should continue allowing the volunteer firefighters to apply as an internal candidate (rather than as an external candidate) for all municipal job postings, provided the firefighters possess the required knowledge and skills.
- 7-2. The Fire Chief should continue conducting formal awards ceremonies to acknowledge local firefighters who have received promotions, demonstrated exemplary service, or reached a milestone regarding their years of service with the McNab/Braeside Fire Department. McNab/Braeside should also consider hosting a recognition event to publicly acknowledge volunteer firefighters.
- 7-3. The Fire Chief should work with Council and applicable municipal staff members to develop ways of publicly acknowledging local employers that allow volunteer firefighters to leave work to perform emergency responses. These initiatives could also involve local media in order to promote pride and ownership in the local fire department and community.

8.0 Departmental Communications

8.1 Overview of Departmental Communications

Fire departments need to have good communication with their firefighters, partners, and the public 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 staffing levels consistent, especially during regular business hours. As such, these fire departments often need to devise 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.

8.2 Transparency, Trust, and Communication

Context

A community consists of many groups, each with its own history, culture, and behaviours. Examples of community groups include residents, municipal staff, and fire service personnel. Other groups include external agencies that share services with the local 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.
- Use social media platforms to relay updates.

Practising 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.

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.

Findings

The Department works diligently to maintain effective communication and positive social dynamics. Two-way communication is achieved through emails, regular officer meetings, and the use of a third-party application called “Who’s Responding.” In addition, the Fire Chief and the applicable district chief attend all of the Department’s internal training sessions, which allows firefighters to communicate information about the Department’s operations.

As a member of the McNab/Braeside management team, the Fire Chief attends regular meetings and communicates relevant information to the members of the Department. Additionally, the Fire Chief regularly participates in meetings with other Fire Chiefs from Renfrew County to discuss training, operations, and collaborative efforts among the respective fire departments. One of the main objectives of these meetings is to discuss ways to enhance service levels and firefighter safety. All relevant information is shared with the Department’s firefighters.

8.3 Recommendations

There are no recommendations regarding departmental communications.

9.0 Stakeholder Engagement

9.1 Overview of Stakeholder Engagement

Stakeholder engagement sessions are designed to gain insights into an organization and its services from the individuals who are responsible for (or oversee) those operations. During an operational review or similar project, the client who tendered the project often holds meetings with the third-party contractor hired to perform the required work.

There are two main goals of stakeholder engagement sessions. The first goal is to collect background information about an organization and its services. The second goal is to provide stakeholders with a chance to help shape how their project develops.

9.2 Stakeholder Engagement for McNab/Braeside

Context

There are many forms of stakeholder engagement. One of the most common ways to facilitate stakeholder engagement is to conduct a SWOT analysis.

A SWOT analysis is a planning method that organizations use to identify their internal strengths and weaknesses, as well as the external opportunities and threats that affect their operations.

Findings

As part of the FMP development process, The Loomex Group conducted the following types of stakeholder engagement:

- a series of meetings with the Fire Chief
- a meeting with the CAO
- a meeting with the Department's officers (from all three fire stations)
- a meeting with the Department's firefighters (from all three fire stations)
- a follow-up survey for any firefighters and officers who were unable to attend the in-person SWOT analysis
 - The online survey also allowed the Department's personnel to expand on their contributions to the in-person SWOT analysis discussions (if desired).The survey was provided to the Fire Chief to send out via personal email.

Overall, the purpose of the engagement sessions was to collect first-hand insights about the Department and the McNab/Braeside community from applicable stakeholders.

Highlights and common themes from the SWOT analysis sessions (and other engagement opportunities) are as follows:

- It was evident that the Department's officers and firefighters are committed to delivering high-quality services to the McNab/Braeside community.
- The Department's officers and firefighters feel a deep connection to their individual fire stations, the Department as a whole, and the McNab/Braeside community.
- The Department's officers and firefighters are dedicated to delivering public education and engaging in various community events, such as fundraisers, parades, and smoke alarm programs. Overall, the Department's personnel strive to make positive impressions on the community.
- Like many municipalities, McNab/Braeside is facing ongoing recruitment and retention concerns that are affecting its fire department. In order to address those concerns, the Department's firefighters suggested enhancing the organization's employee recognition program, which could potentially entice current staff members to remain with the organization.
 - The firefighters did not identify any initiatives that could possibly bolster the recognition program, but they think improvements are necessary in order for the Department to have good recruitment and retention levels on a continuing basis.
- There is a general feeling that the Department should introduce changes to its structure that will provide direction and stability for the community. For example, the Department should consider recruiting more volunteer personnel to work daytime hours. The Department should also strive to upgrade the condition of its station vehicles and assign dedicated personnel to support the Fire Chief with specific tasks (such as administrative functions).
- Concern was expressed about the condition of McNab/Braeside's three fire stations. These concerns include the lack of adequate ventilation, the lack of proper shower facilities (which the firefighters can use to decontaminate themselves after responding to a fire call), and the general condition of the fire stations.
- In regard to the Department's training program, it is believed that the organization can improve the way it uses technology. If the Department improves the way it leverages technology, it should help the organization's staff members complete the required training.

9.3 Recommendations

Recommendations regarding the stakeholder engagement sessions in McNab/Braeside are as follows:

- 9-1. The Fire Chief should review the results of the SWOT analysis that was conducted as part of the 2025 McNab/Braeside Fire Master Plan. The Fire Chief should then determine whether the fire department should update its operations or strategic planning to incorporate suggestions from the SWOT analysis. (For reference purposes, the fire master plan contains a high-level analysis of the themes identified during the SWOT analysis.)

10.0 Emergency Management

10.1 Overview of Emergency Management

Context

In order to receive their annual compliance recognition, municipalities must meet specific requirements of the EMCPA.

Under the EMCPA, each municipality has the following obligations:

- Establish an emergency management program (“**EMP**”) and an EMP committee (“**EMPC**”).
- 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 primary and alternate community emergency management coordinator (“**CEMC**”).
- Review the community’s critical infrastructure annually (making updates as required).
- Review the community’s hazard identification and risk analysis (“**HIRA**”) annually (making updates as required).

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

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

Findings

McNab/Braeside has established an EMPC, a CEMC, and alternate CEMC to manage the township’s EMP. (As of this FMP, the primary CEMC is the CAO/Clerk, and the alternate CEMC is the Executive Assistant.) The Department does not have a lead role associated with managing the township’s EMP, but the organization is integral during responses to municipal emergencies.

The primary emergency operations centre (“**EOC**”) in McNab/Braeside is located at the current municipal offices (2473 Russett Drive). The alternate EOC is located at the John A. Gillies Centre (138 Sarah Street), which is also called the Braeside Community Centre. Both EOC locations have backup generators, and the facilities are accessible to all residents of the township.

In terms of emergency management and preparedness, McNab/Braeside has taken the following actions:

- McNab/Braeside enforces By-law No. 2019-62, which allows the township to establish and adopt an EMP and an emergency response plan.
- The official website for McNab/Braeside includes a link to Emergency Management Ontario. The website also includes preparedness guidelines for the residents of the community.
- The emergency response plan for McNab/Braeside is available for viewing at the township's municipal offices.
- The EMPC has reviewed the HIRA and critical infrastructure for McNab/Braeside in order to determine appropriate response procedures for the community. These procedures incorporate the concept of the Incident Management System, which is an emergency response model developed by the Province of Ontario.

The Fire Chief and the CEMC should continue to coordinate annual tabletop training exercises. Doing so will help the township continue to meet applicable compliance requirements, and it will also prepare applicable personnel to fulfill their assigned duties during an emergency response.

10.2 Recommendations

Recommendations regarding emergency management in McNab/Braeside are as follows:

- 10-1. The Fire Chief and McNab/Braeside's community emergency management coordinator should continue to coordinate emergency management training sessions and exercises for the township's municipal emergency control group. The training and exercises should incorporate external resources and partners to ensure that all participants can practise fulfilling their assigned duties.

11.0 Occupational Health and Safety

11.1 Overview of Occupational Health and Safety

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.

Some examples of health and safety considerations that are specific to the fire service are as follows:

- care and maintenance of firefighting gear and equipment
- firefighter health and wellness
- competent supervisors and officer development
- driver training and licensing
- contaminant-free facilities

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 are specific types of 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. As a best practice, fire departments should adhere to the Section 21 Guidance Notes developed by the Ontario Fire Service Health and Safety Advisory Committee. The Section 21 Guidance Notes are reviewed and approved by the Minister of Labour.

11.2 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. In some municipalities, the local fire department and municipal staff share a single health and safety committee. Ideally, a JHSC should perform monthly health and safety inspections and meet at quarterly intervals to discuss applicable concerns.

Findings

The JHSC in McNab/Braeside includes representatives from numerous municipal departments, including the local fire department, public works department, and recreation department. The terms of reference for McNab/Braeside's JHSC are outlined in the township's occupational health and safety policy.

The Fire Chief is the Department's representative on the JHSC. If any of the Department's personnel identify health and safety concerns at their fire stations, they inform the Fire Chief. The Fire Chief then addresses those issues with the JHSC.

Table 11 shows a questionnaire that was completed as part of this FMP. The information in the table clarifies specific aspects regarding the JHSC in McNab/Braeside.

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?	Yes
Does the JHSC consist of both fire service personnel and municipal staff members?	Yes
Is the JHSC compliant with all applicable regulations and by-laws?	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?	No
Is the JHSC documenting its actions?	Yes
Has the JHSC formalized a complaint process?	Yes

Based on the answers indicated above, the JHSC in McNab/Braeside is not fully compliant with applicable legislation.

As noted in Table 11, McNab/Braeside's JHSC posts relevant occupational health and safety information, such as meeting minutes, on designated health and safety boards (shown in Figure 4).



Figure 4. Health and safety boards in McNab/Braeside.

Upon review, it is evident that the health and safety boards do not always display copies of certain information. In addition, ongoing housekeeping is required to ensure that all information is posted in a conspicuous location. Housekeeping is also required to ensure that older meeting minutes are removed and indexed accordingly.

It is also important to note that there seems to be a general lack of awareness about the JHSC. During the SWOT analysis that was conducted during the development of this FMP, the Department's firefighters indicated that they were not aware of the JHSC or the monthly inspections that take place to resolve issues of concern. Moreover, most of the firefighters advised that they are not aware of the formal complaint process or follow-up resolutions that the JHSC completes.

11.3 Personal Protective Equipment

11.3.1 Primary Types of Personal Protective Equipment

Context

Firefighters use a variety of personal protective equipment ("PPE") to protect themselves from injury and death.

The equipment that comprises a firefighter's protective ensemble (or bunker gear) includes the following types of PPE:

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

Every piece of a protective ensemble is crucial for protecting firefighter safety.

NFPA 1851, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Firefighting 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." (This recommendation is also endorsed by Section 21 Guidance Note #4-8, "Care, maintenance, inspection and replacement of structural firefighting personal protective equipment.") Furthermore, NFPA 1851 and the Section 21 Guidance Notes recommend that fire departments also replace the other components of their firefighter ensemble every ten years.⁵

In some cases, a fire department will need to replace its PPE sooner than every ten years. For instance, if a fire department conducts a post-emergency inspection and discovers that one or more firefighters have damaged PPE, the fire department should ensure that it replaces the compromised gear immediately.

Findings

As of this FMP, the Department has 42 sets of PPE (and a roster of 40 firefighters). The Department is currently following a ten-year standard replacement schedule for its PPE, which is in alignment with industry-proven best practices.

In 2025, the Department ordered new PPE for most of its recent recruits. This new gear will provide the organization with "spare PPE" that can be used as replacement gear if any of the primary PPE is damaged or expired.

⁵ However, according to NFPA 1970, firefighters who do not perform suppression duties may use gear that is more than ten years old (if necessary).

11.3.2 Cleaning and Maintaining Protective Ensemble

Context

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, and those by-products can contaminate 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 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.

According to O. Reg. 714/94, fire departments must provide their firefighters with garments that meet or exceed the requirements of the following standards:

- NFPA 1971, *Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*, 2007 edition (for garments manufactured on or after March 1, 2007)
- CAN/CGSB-155.1-M88, *Firefighters' Protective Clothing for Protection Against Heat and Flame* (for garments manufactured before March 1, 2007)

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.

Findings

The Department has several PPE cleaning protocols, such as:

- The Department sends all its PPE to an appropriate third-party company for annual cleaning and testing.
- The Department follows in-house guidelines regarding the care, cleaning, and inspection of its PPE following any contamination.
- The Department instructs its station captains, district chiefs, and firefighters about post-call, inspection, and follow-up procedures.
- The Department conducts annual gear inspections and on-demand testing.

Despite its current protocols, there are several factors that limit the Department's PPE cleaning abilities beyond the regular inspections. For instance, the organization lacks washing machines/dryers, with only one unit located at Station 1. The lack of washing machines/dryers means the firefighters must wait to obtain clean gear following an event where their PPE became contaminated.

Overall, the Department is working toward applicable PPE standards and legislative requirements regarding PPE cleaning and maintenance. Reaching this goal should be prioritized, as doing so will help ensure the safety of the Department's firefighters is protected.

11.3.3 Proper Fit of Protective Ensemble

Context

When a firefighter wears a protective ensemble that is too long or bulky, it may impede their movement and stability.

Ideally, all fire departments should arrange for their firefighters to have 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

The Department has a sufficient supply of PPE, and all of the organization's firefighters are sized to ensure their PPE fits them properly. As part of this process, the Department has a third-party vendor inspect and test its PPE on an annual basis.

As of this FMP, the Department recently recruited 11 new firefighters. The Department has arranged PPE fittings for these new firefighters, and the anticipated delivery date of that gear is 2025. As noted in section 11.3.1, the additional PPE will also provide the Department with "spare PPE" that can be used as replacement gear if any of the primary PPE is damaged or expired.

11.3.4 Self-Contained Breathing Apparatus Testing and Compliance

Context

A self-contained breathing apparatus ("**SCBA**") is a vital type of PPE that firefighters rely upon to complete critical tasks during emergency responses. Firefighters must wear an SCBA whenever a toxic atmosphere is present or suspected, such as during fires, carbon monoxide calls, and hazardous material spills.

As per the OHSA, all employers must provide their workers appropriate equipment and maintain that equipment in good condition. The standards that govern SCBA equipment are as follows:

- NFPA 1852, *Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus*, establishes standards that all fire departments that use SCBA should follow. The standard is designed to reduce the health and safety risks associated with damage, contamination, or improper maintenance of an SCBA. This standard aligns with the requirements of the respiratory protection program outlined in NFPA 1550, *Standard on Emergency Responder Health and Safety*.
- CAN/CSA-Z94.4-18, *Selection, use and care of respirators*, establishes standards that all fire departments that use respirators should follow. This standard requires that fire departments establish a written respiratory protection program which formalizes the use of respiratory protection to prevent workers from inhaling hazardous materials.

Findings

The Department currently has 20 SCBA units and 40 cylinders. The SCBA units are cleaned and maintained after they are used, and they are checked on the Department's dedicated maintenance training nights.

In order to meet applicable legislative requirements, the Department hires a third-party vendor to inspect, test, and repair its SCBA on an annual basis. In addition to this maintenance work, the Department arranges a qualified third party to complete hydrostatic testing of the SCBA cylinders every three years.

Because SCBA gear plays a vital role in protecting firefighters from carcinogens and contaminants, it is important to ensure that the Department maintains an adequate supply of breathing apparatus. Currently, the Department only has one SCBA cylinder filling station (located at Station 1). Although the Department lacks multiple filling stations, the organization has managed to maintain a supply of air bottles for emergency responders. The Department has worked with its station captains to arrange a refilling schedule that is balanced and equitable for all three of the organization's fire stations.

11.3.5 Respirator Fit Testing

Context

Each firefighter must have a fit-tested mask when they wear an SCBA during an emergency response. Each 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

The Department has a fit-testing policy regarding its respirators. As per the policy, all of the Department's firefighters must be fit tested before they are allowed to wear an SCBA mask in a hazardous atmosphere. The firefighters are also required to complete subsequent fit testing every two years.

The Department completed its most recent respirator fit testing in 2023. The next respirator fit testing is scheduled for 2025.

11.4 Diesel Exhaust Systems

Context

According to Section 21 Guidance Note #3-1, "Controlling exposure to diesel exhaust":

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 (PAHs). The particulate portion of diesel exhaust is made up of particles such as carbon, organic materials (including PAHs), and traces of metallic compounds. [...]

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. [...]

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 Section 21 Guidance Notes recommend using a series of control measures related to:

- ventilation
- buildings
- trucks
- equipment
- written operating procedures
- choice of fuel
- air monitoring
- maintenance
- housekeeping
- firefighter education

Findings

As of this FMP, the three fire stations in McNab/Braeside do not have mechanical ventilation to remove contaminants from the buildings.

The building condition report that was provided to McNab/Braeside addresses applicable compliance concerns, and it provides recommendations regarding the condition of the fire stations.

Currently, it is in the Department's best interest to develop policies aimed at mitigating the number of contaminants the organization's firefighters are exposed to while operating at the fire stations. For instance, steps should be taken to reduce the amount of fire apparatus exhaust that may accumulate in the stations. As a best practice, the proposed policies should adhere to Section 21 Guidance Note #3-1.

11.5 Firefighter Health and Wellness

11.5.1 Overview of Firefighter Health and Wellness

It is crucial for employers to support the well-being of their employees in order to maintain a healthy workplace environment.

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 various health and wellness guidelines to develop programs to support all personnel in their organizations.

11.5.2 Mental Health Support Programs

Context

Mental health support programs are usually led by a dedicated mental health committee.

Firefighters who serve on a mental health committee become peer support members and have the following responsibilities:

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

It is common for a mental health committee to focus its efforts by splitting its mental health program into subcategories, such as pre-incident planning education, peer support, and critical incident stress management (“**CISM**”).

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 which 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

McNab/Braeside has a PTSD prevention plan that includes an intervention process. The stated goal of the plan is to provide the members of the Department with the tools they need for PTSD prevention, intervention, and a return to work through the establishment of the roles and responsibilities within the organization.

As part of the PTSD prevention plan, the Department facilitates in-house training through the Road to Mental Readiness program. This program is designed to improve the overall mental wellness of the Department’s firefighters. The program addresses pre-incident education, CISM, and peer support.

The Department also supports its firefighters by providing after-call tailboard discussions, including providing courses for officers and firefighters. This support is aimed at awareness training so that members of the Department can familiarize themselves with signs and symptoms of PTSD.

All members of the Department can also access additional support through the Homewood program, which is funded by municipal insurance funding. The local employee assistance program (which is facilitated through Homewood) is a 24-hour access program that is completely confidential.

11.5.3 Physical Fitness

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

Although the Department has made commitments to supporting the overall health and wellness of its firefighters by providing various programs, it has not provided any support in regard to physical fitness.

As of this FMP, some of the Department's fire stations have fitness equipment, but the lack of adequate ventilation precludes the success of fitness programs. If McNab/Braeside renovates or replaces its fire stations, the township should ensure that it gives consideration to installing proper workout areas for the firefighters.

11.6 Recommendations

Recommendations regarding occupational health and safety in McNab/Braeside are as follows:

- 11-1. The Fire Chief should review the current occupational health and safety policies that pertain to the McNab/Braeside Fire Department. The Fire Chief should then select a representative to monitor the health and safety boards in their fire station to ensure that they are updated on a regular basis.
- 11-2. The Fire Chief should work with the joint health and safety committee to develop a health and safety training program for the McNab/Braeside Fire Department. This program should be provided to all of the fire department's personnel, including its recent recruits.
- 11-3. The Fire Chief should continue to develop a plan that will allow the McNab/Braeside Fire Department to purchase an additional supply of personal protective equipment (for backup purposes).
- 11-4. The Fire Chief should develop a policy for mitigating how much fire apparatus exhaust the firefighters of the McNab/Braeside Fire Department are exposed to while operating in their fire stations. The policy should adhere to Section 21 Guidance Note #3-1.

- 11-5. The Fire Chief and the McNab/Braeside Human Resources Department should work together to continue providing the McNab/Braeside Fire Department with information about proper nutrition, exercise, injury prevention, and general wellness strategies. This information should be provided on a regular basis.
- 11-6. The Fire Chief and the McNab/Braeside Human Resources Department should work together to continue supporting and enhancing the McNab/Braeside Fire Department firefighter wellness program, critical incident stress management program, and post-traumatic stress disorder program.

12.0 Types and Levels of Service

12.1 Overview of Core and Specialized Services

Each municipality has different risks, needs, and circumstances. Those variables should determine which fire protection services the local fire department provides.

The term “core services” refers to the types of services that are commonly needed in most municipalities. For instance, auto extrication is usually considered a core service.

The term “specialized services” refers to specific services that are applicable to some communities but not others. An example of a specialized service is heavy urban rescue.

Once a municipality decides which fire protection services it requires, the municipality must determine which level of service its fire department should provide. As a best practice, municipalities should work with their fire departments to reassess the types and levels of their fire protection services on an annual basis. Doing so can help municipalities determine whether they are meeting the needs of their permanent residents, seasonal residents, visitors, and businesses.

12.2 Core Services

Context

Core services are the main services that most fire departments offer. Common examples of these services include interior and exterior fire suppression.

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 the local 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 needs to establish applicable documentation, complete all required training, and maintain access to the necessary equipment.

It is unlikely that a fire department will provide specialized services effectively if it does not attain proficiency in its core services.

Findings

Appendix B of By-law 2018-68 identifies which core services the Department must provide. These services are listed below (sorted by category).

Emergency Response

- interior and exterior structural fire suppression
- auto extrication and heavy rescue

Fire Prevention and Public Education

- Smoke Alarm program
- Older and Wiser program
- Assist Schools program
- fire prevention and education mail-out program

Code Enforcement Program

- residential code inspections (on complaint)
- business inspections (on request)
- smoke alarm prevention and enforcement
- enforcing burning by-laws and issuing permits

Going forward, the Fire Chief should review the core services listed in the E&R by-law and compare them to the actual core services the Department provides. (The level of service associated with each core service should also be confirmed.) If discrepancies exist, the Fire Chief should update the by-law accordingly.

12.3 Specialized Services

Context

In terms of level of service, most specialized services can be provided at the awareness level, the operations level, or the technician level.

At a minimum, a municipality should consider the following questions to determine which specialized services its fire department should deliver:

- Does the fire department have enough firefighters to deliver specialized services?
- How will offering specialized services impact firefighter safety?

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- 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?
 - Does the municipality have the resources needed to fund the cost of having the fire department provide specialized services?

Even if a municipality determines there is a need for its fire department to provide specialized services, it must ensure that the local firefighters are proficient at delivering their core services before they attempt to deliver 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 various certifications.

Findings

By-law 2020-68 authorizes the Department to provide hazardous materials response services (at the awareness level) and shore-based water/ice rescues. The by-law explicitly states that the Department does not perform high-angle rescue services.

Upon review, the Department is providing some services that are not listed in By-law 2020-68. For instance, the Department provides hazardous material response services at the operations level. In order to correct these discrepancies, the E&R by-law should be updated. In addition, the Department's firefighters should be trained to this level of service, and they should have access to all associated equipment.

The Department should consider developing a new draft of the E&R by-law. The updated document should authorize the Department to perform specialized rescue services beyond those listed in By-law 2020-68. The Department should also ensure that the new E&R by-law lists the relevant industry standards for each specialized service it provides, as well as the level of service the firefighters are expected to perform.

Table 12 lists the services that the Department should consider including in the updated E&R by-law, as well as NFPA standards relevant to each service.

Table 12. Suggested specialized service and relevant standards.

Specialized Service	Suggested Level	Relevant NFPA Standard
Hazardous materials response	Operations	NFPA 1072
Water/ice rescue	Shore-based, Level 1	NFPA 1006
High/low-angle rescue	Awareness	NFPA 1006
Trench rescue	Awareness	NFPA 1006
Confined space rescue	Awareness	NFPA 1006

If the Department determines that it should provide the services listed above, it should update the E&R by-law accordingly and then submit the document to Council for consideration. If Council approves the additional services, the Department must develop a training program that corresponds with the types and levels of service it is expected to provide.

The Department should also consider providing its firefighters with awareness-level training for the specialized services that it does not currently offer. Doing so may allow the Department's personnel to assist specialized response teams if a related incident occurs in McNab/Braeside.

12.4 Recommendations

Recommendations regarding the types and levels of service in McNab/Braeside are as follows:

- 12-1. The Fire Chief should update the establishing and regulating by-law for McNab/Braeside (as required) as it pertains to the core and specialized services provided by the McNab/Braeside Fire Department. (The updated by-law should be based on the findings of the 2025 McNab/Braeside Fire Master Plan.) The updated by-law should then be submitted to Council for consideration and approval.

13.0 Fire Prevention and Public Education

13.1 Overview of Fire Prevention and Public Education

Fires are extremely dangerous incidents that can lead to fatalities and severe property damage. Due to these risks, 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. In order to address these issues, 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.

Fire prevention programs should include public education initiatives that bring fire safety issues to the forefront. In order to remain effective, the programs require continued monitoring and revision to ensure they stay relevant to the community's current and anticipated needs.

Although the OFM emphasizes the importance of fire prevention initiatives, some municipalities do not provide enough resources for public education and code enforcement programs. Often, municipalities believe they cannot fund a comprehensive fire prevention program because they must reallocate available resources to offset the costs of fighting fires. The reality is that fire suppression has a more significant financial impact on a community than public education and code enforcement initiatives. Although municipalities should not reduce fire suppression funding, it is essential to find ways of allocating funds to support proactive fire prevention initiatives. Moreover, the FPPA requires every municipality to establish a fire prevention program.

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

13.2 Community Risk Assessment

Context

On July 1, 2019, the Province of Ontario passed O. Reg. 378/18. This regulation (which falls under the authority of the FPPA) required every municipality in the province to complete a community risk assessment (“**CRA**”) by July 1, 2024. All municipalities are also required to complete a new CRA every five years.

As a best practice, every municipality should also consider reviewing its CRA annually or when there are any significant changes in the community.

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

Findings

McNab/Braeside completed a CRA in 2024.

Going forward, the Fire Chief should review the findings of the township’s CRA and analyze the emergencies that McNab/Braeside has recently experienced. The Fire Chief should then update the Department’s current public education program accordingly. The updated program should include initiatives that are designed to address the risks that McNab/Braeside is most likely to face in the future.

13.3 Public Education Activities

Context

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

Common ways of providing public education include:

- 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.

As a best practice, fire departments should allocate their public education resources to the areas of the community where the need for those resources is greatest. Fire departments should also assess the community's risks, needs, and circumstances on an ongoing basis to ensure their public education initiatives remain applicable and are designed for maximum effectiveness.

Findings

According to the FPPA and By-law 2018-68, the Department must provide fire prevention, public education, and code enforcement services.

As of this FMP, the Department provides the services listed below (sorted by category).

Fire Prevention and Public Education

- Facilitate a smoke alarm program.
- Help local schools facilitate fire safety programs.
- Facilitate the Older and Wiser program for elderly residents.
- Include safety brochures with tax notices mailed to residents.

Burning By-law and Permits

- Educate all staff members that issue permits so that they can provide accurate information to residents.

Fire Code Enforcement

- Conduct residential inspections (upon complaint).
- Conduct business inspections (upon request).
- Conduct smoke alarm inspections (with an emphasis on fire prevention and education).
- Enforce the provisions of the OFC that relate to smoke alarms. (Enforcing the OFC should be used as a last resort.)

Community Support

As noted in section 9 of this FMP, the Department's firefighters who participated in the stakeholder engagement sessions for this project expressed a positive opinion of the organization's level of community engagement. In their opinion, the Department provides a good level of public education and community service.

The Department supports the community in the following ways:

- Attend community fairs.
- Facilitate smoke alarm programs.
- Participate in Christmas parades.
- Attend community breakfasts and barbecues.
- Provide water for public rinks during the winter.

Overall, the Department's firefighters support the community well and take every opportunity to educate the public about fire safety practices.

13.4 Fire Inspections

13.4.1 Inspection and Compliance Requirements

Context

Fire departments conduct inspections by request when they receive notifications related to new occupancies, licensing, property sales, and fire code compliance. All personnel who conduct inspections must be certified to the appropriate standard through the NFPA certification process.

As per O. Reg. 365/13, fire departments must complete requested inspections. Fire departments must also complete follow-up actions for all requested inspections. The most common follow-up actions are correspondence (in the form of a letter) and the addition of a note to the complaint's file.

As per O. Reg. 364/13, fire departments must complete vulnerable occupancy inspections and verify that all vulnerable occupancies in their community have conducted the required fire drills. A vulnerable occupancy is a building or organization that functions as a retirement home, a care facility, or a care and treatment facility.

Findings

As of this FMP, the Fire Chief manages the Department's code enforcement program.

In this role, the Fire Chief is responsible for conducting the following types of inspections:

- owner-requested inspections
- on-demand inspections
- sale inspections
- licencing inspections
- routine inspections

Overall, the Department's code enforcement program complies with the requirements of the FPPA. However, the program has some inherent flaws. For instance, the structure of the current program is reactive rather than proactive. Another issue is that the program is too reliant on the Fire Chief. Because the Fire Chief is solely responsible for facilitating the program, a single-point-of-failure scenario is possible, especially if the Fire Chief were absent for a long period of time or otherwise unable to complete code enforcement duties. In addition, the Fire Chief has many duties outside of code enforcement and can only dedicate a limited amount of time to the program. Due to these limitations, the Department may find it difficult to complete inspections in a timely manner.

Information about the inspections completed by the Department between 2019 and 2023 (based on statistics provided by the Department) are presented in the tables below.

Table 13 lists the number of inspections that were completed (sorted by occupancy type).

Table 13. Inspections by occupancy type, 2019 to 2023.

Type of Occupancy	2019	2020	2021	2022	2023	Total
Group A (assembly)	0	0	0	0	0	0
Group B (care and treatment)	N/A	N/A	N/A	N/A	N/A	N/A
Group C (residential)	2	2	2	2	2	10
Group D & E (mercantile/commercial)	0	0	0	0	0	0
Group F (industrial)	0	0	0	0	0	0
Other/non-occupancy	5	5	4	4	4	22
Total	7	7	6	6	6	32

Table 14 lists the reasons the inspections were completed.

Table 14. Inspection reasons, 2019 to 2023.

Type of Inspection	2019	2020	2021	2022	2023	Total
Complaint inspections	0	0	0	0	0	0
Owner request inspections	2	2	2	2	0	8
Sale request inspections	0	0	0	0	0	0
Routine inspections	0	0	0	0	0	0
Licensing inspections	0	0	0	0	4	4
Other inspections	5	5	4	4	4	22
Total	7	7	6	6	8	34

Table 15 lists the number of violations and notices issued during or following the inspections.

Table 15. Violations and issued notices, 2019 to 2023.

Type of Notice	2019	2020	2021	2022	2023	Total
Verbal notice	0	0	0	0	0	0
Letter	0	1	0	0	0	1
Order	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	0	1	0	0	0	1
Resolved	N/A	100%	N/A	N/A	N/A	100%

13.5 Fire Investigations

Context

As per the FPPA, fire departments must investigate all fires that occur within their 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 of a fire 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. Fire departments must notify the OFM and the local police about all fires that appear suspicious.

The FPPA 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. Firefighters must report all incendiary fires and explosions 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 in-patient. 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.
- 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.

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 conducts fire investigations as needed (in compliance with the FPPA). However, the Fire Chief is the only member of the Department who conducts fire investigations. As a result, the Department's fire investigation process has a single point of failure. In order to address this issue, the Department should ensure that it has additional personnel who are available and trained to conduct fire investigations.

13.6 Fire Prevention Challenges

Context

As per the concept of the three lines of defence, public education should be used as the primary means of reducing the number of structure fires within a community. The goal of proactive public education initiatives is to reduce and mitigate the potential for dollar loss, injuries, and deaths. While continuous improvements to building codes are likely to reduce the number of fires in a community, building occupants must know the proper procedures to survive a fire.

One way to reduce the amount of property damage, injuries, and deaths caused by fires is to develop a proactive fire prevention plan that includes public education and code enforcement initiatives. Ideally, this type of plan is best managed by a dedicated individual who has the primary responsibility of making homes, businesses, and communities safer from fires and other hazards.

Findings

As noted above, the Department facilitates a comprehensive public education program, as well as an effective smoke alarm program. The organization also promotes fire prevention and delivers fire safety education at community events. However, as noted in section 2.7, several building developments are planned in McNab/Braeside. In addition, the expansion of Highway 17 may lead to further growth and development in the township. These developments will likely increase the township's population, which will increase the demand for the Department to conduct fire prevention activities.

Going forward, the Department should review its staffing levels to ensure that its public education and code enforcement programs will continue to meet the expected needs of the township's growing population. The Department must also ensure that it can continue to provide services that adhere to the concept of the three lines of defence.

In order to address its fire prevention challenges, the Department should consider assigning a dedicated individual to develop and manage its public education and code enforcement programs. This role would allow the Department to offer fire prevention programs that are proactive rather than reactive. These duties could be assigned to the deputy chief when the position is filled. (The deputy chief could also help the Fire Chief conduct fire investigations and help manage the Department overall).

13.7 Recommendations

Recommendations regarding fire prevention and public education in McNab/Braeside are as follows:

- 13-1. The Fire Chief should continue to review the findings of the 2024 McNab/Braeside Community Risk Assessment periodically and analyze which emergencies the township has recently experienced. The Fire Chief should then update the McNab/Braeside Fire Department's public education program to prioritize the risks that McNab/Braeside is most likely to face in the future.
- 13-2. The Fire Chief should reinstate the pre-planning process at the fire stations in McNab/Braeside as part of ongoing in-service training. For documentation purposes, this process should be tracked using a new records management system.
- 13-3. The McNab/Braeside Fire Department should hire a full-time deputy chief. The deputy chief should manage various programs (including fire prevention, code enforcement, and fire investigation programs) and assist the Fire Chief with administrative tasks (such as managing the training program).⁶

⁶ This recommendation was approved as part of McNab/Braeside's 2025 budget, and the recruitment process has begun.

14.0 Training and Certifications

14.1 Overview of Training and Certifications

As per O. Reg. 297/13, subsections 4 (1) and (2), employers must keep a record of the awareness training their employees and supervisors receive. Employers must also keep a record of any worker or supervisor who is exempt from the training. Furthermore, 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.

A training program is an essential part of a fire department's operations. In addition to satisfying legislative requirements, a successful training program provides firefighters with the knowledge and skill levels they need to perform their duties safely, efficiently, and effectively. In general, fire departments typically offer three types of training: recruit training, in-service training, and provincial and municipal training.

There are specific training requirements that fire departments must observe. The Province of Ontario requires fire departments to provide their employees with training on the following topics:

- Workplace Hazardous Materials Information System (“**WHMIS**”)
- Accessibility for Ontarians with Disabilities Act (“**AODA**”)
- Incident Management System
- workplace harassment
- other training (as required)

In order to perform response duties safely, firefighters must also receive training that teaches them the skills they need to carry out their assigned tasks. The training must help the firefighters develop an aptitude for recognizing the appropriate actions to take during an emergency response. A well-trained firefighter is a firefighter who is properly equipped to make decisions that will mitigate risks and save lives.

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. The ongoing training will also help firefighters maintain their skill levels.

Firefighters must also complete specific training in order to obtain certifications that are now mandatory for fire service personnel (as per O. Reg. 343/22). An ongoing training program helps firefighters remain current with these certification requirements.

14.2 Firefighter Certification

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 receive the minimum level of certification for all services they perform. This stipulation is designed to ensure that all 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 the applicable NFPA standards) for those services.
- Firefighters must meet the NFPA standards applicable to their roles. All firefighters must also 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.
- Fire departments must ensure all 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, including NFPA 1001 (with some exceptions).

Fire departments must ensure that all applicable personnel are certified to the following standards prior to the certification date:

- 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 before firefighters can drive to emergency sites, as well as requirements for 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, including the following services the Department provides:
 - surface water rescue services (chapter 17)
 - swiftwater rescue services (chapter 18)
 - ice rescue services (chapter 20)
 - 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, *Standard for Fire Officer Professional Qualifications*, identifies the minimum job performance requirements that fire officers should meet.⁷ 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, *Standard for Fire and Emergency Services Instructor Professional Qualifications*, identifies the job requirements that fire service instructors should meet who are participating in training.
 - 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*.)

⁷ NFPA 1021 and NFPA 1041 are scheduled to be consolidated into NFPA 1020 by 2025.

Until recently, the provincial certification program allowed firefighters to meet certification requirements without completing the necessary NFPA training. Firefighters could attempt to have their training grandfathered or attain a legacy status that reflected their skill levels.

Under the grandfathering process, fire departments could submit lists indicating which personnel should qualify as NFPA-certified based on their years of experience and ongoing training. The Ontario government has given fire departments two opportunities to complete the grandfathering process. The final deadline was December 31, 2018.

Fire departments were also able to submit names of members who did not complete the grandfathering process but had the qualifications to perform certain fire protection tasks, such as exterior firefighting, interior firefighting, or auto extrication. If the firefighters were deemed qualified, they would be granted legacy status. The final deadline to register for legacy status was September 2023.

Findings

McNab/Braeside has strived to meet the applicable certification requirements before the stated deadlines.

A review of the current staffing levels indicated that members of the Department are working toward their NFPA certifications. Some members of the Department have maintained their grandfather status, and many recent recruits obtained their certifications while working at other fire departments.

Currently, the Department is working toward a compliance goal before the legislated deadlines of 2026:

- Table 16 summarizes the number of personnel in the Department who are eligible for each of the NFPA certifications. The table also indicates the Department's current level of compliance with those NFPA certifications. (The level of compliance is shown as a percentage.)
- Table 17 summarizes other certifications or licencing options that are recommended for the Department.

Table 16. Percentage of NFPA compliance for required certification.

Required Certification	Eligible Personnel	Completed or Pending	Percentage Compliant or Pending
NFPA 1001 Firefighter I	41	26	63%
NFPA 1001 Firefighter II	41	26	63%
NFPA 1002 Fire Apparatus Driver/Operator	41	14	34%
NFPA 1072 Hazmat Awareness level ⁸	41	33	80%
NFPA 1021 Officer I	7	6	86%
NFPA 1021 Officer II	7	3	43%
NFPA 1041 Fire Service Instructor I	9	9	100%
NFPA 1041 Fire Service Instructor II	7	4	57%

Table 17. Percentage of NFPA compliance for recommended certification.

Recommended Certifications and Licencing	Eligible Personnel	Completed or Pending	Percentage Compliant or Pending
NFPA 1035 Fire and Life Safety Educator	41	7	17%
NFPA 1521 Incident Safety Officer	7	1	14%
DZ Licence	41	30	73%

14.3 Training Program

Context

As stated in the overview of this section of the FMP, a training program is an essential part of a fire department's operations. A successful training program ensures that

⁸ As discussed in section 12, it is important to note that the Department is operating at the awareness level for hazardous materials responses. However, based on the type of service that it is currently providing, the Department is required to be at the operations level.

firefighters are trained to provide its council-approved level of service safely and effectively.

An ongoing training program can also help firefighters remain current with the NFPA standards that are applicable to their roles and the services they provide. For example, if a fire department is not required to provide a specific service (such as auto extrication), that department's firefighters do not need to complete ongoing training for that type of service.

In addition to completing ongoing training that covers NFPA standards, firefighters must complete training that addresses legislation and hazards that were not covered by NFPA. For example, modern homes are constructed with different materials and in a different manner than older homes. As such, fires in modern homes have a much higher heat-release rate, and firefighters may face exposure to a higher level of risk than in years past. In response to these challenges, firefighting tactics and practices have evolved. Recent research into fire behaviour has led to new firefighting techniques aimed at improving the safety of firefighters and members of the public.

Although it is essential to facilitate a training program, it can be very difficult for some fire departments to provide adequate training that prepares their firefighters to perform their duties. For instance, volunteer fire departments often face several training-related challenges. The most common challenge is a lack of time to complete mandatory and ongoing training. Other issues are a lack of certified instructors, the lack of a training facility, scheduling issues, or the amount of travel required.

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 commitments. 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.

An officer development program is also essential to the overall success of a fire department. These types of programs help firefighters acquire the knowledge and skills that are necessary to fill leadership roles and overcome the challenges that are unique to senior fire service personnel. As a best practice, fire departments should promote their firefighters to officer roles based on merit and qualifications. Doing so will help ensure that the individuals who are promoted to officer roles have progressed through

the various levels of education, training, and certification that are needed to support their fire department.

Findings

As of this FMP, the Department provides ongoing in-service training that covers the standardized, needs-based, and specialty services it is expected to deliver to the firefighters in McNab/Braeside.

At a minimum, the Department's in-service training sessions take place on Monday nights and cover a variety of topics (both specialized and mandatory). Some special topics that require more time to complete are scheduled for weekends, and other courses are completed off-site at training centres.

Currently, the Fire Chief is the sole administrator of the Department's training program. In this role, one of the Fire Chief's main duties is developing the Department's training schedule. Each training schedule is set for a one-year interval, and it outlines various training topics that will be covered, such as:

- first aid
- search and rescue
- fire dynamics
- wildland fires
- water supply and pump operations
- fireground tactics
- auto extrication
- fire prevention and public education
- community familiarization

The completed training schedule is distributed to the District Chiefs for implementation.

Overseeing the delivery of the selected training topics is also the responsibility of the Fire Chief, but the District Chiefs are responsible for assigning a captain or another qualified instructor to deliver the training. In theory, this arrangement should work. However, in some cases, a captain or training instructor is unavailable, which hinders the Department's ability to facilitate an effective training program.

Upon review, the Department's firefighters do not always receive consistent training. The main challenge with the training program is that the Fire Chief's other duties leave little time for training. If the Department does not take steps to address the issues affecting the program, it is possible that the program will fail to accommodate the

Department's future needs. However, there are several recommendations that the Department can implement to address and overcome those challenges.

The first recommendation is to assign a dedicated person to manage the Department's training program. For example, the responsibility of managing the training program could be assigned to the new deputy chief position.⁹ There are several benefits to assigning a dedicated person to oversee the program, such as:

- The dedicated personnel would allow the Fire Chief to support the training program without other duties impeding its implementation.
- Having a dedicated staff member to handle the training program would provide the Department with someone to help manage NFPA certification, officer development, and firefighter retention needs.
- A dedicated person could try to find and promote additional training courses for the Department's officers.
- A dedicated person could ensure that the volunteer officers are available to attend next-level training.
- The establishment of the new role will help the Department with succession planning, ensuring that candidates are available when leadership roles become available.

During the firefighter engagement sessions that were conducted for this FMP, the Department's firefighters advised that they understand the impact NFPA certification requirements, and they think it would be beneficial to have a dedicated individual to oversee the Department's training and certification program.

The next recommendation is to establish a training committee that consists of members from each of the Department's fire stations. This committee could handle several key duties, such as:

- Set up training schedules.
- Provide guidance about required training.
- Assist with training delivery.

The committee would be chaired and managed by the new position described above.

⁹ As mentioned in section 3.3.5 of this FMP, the recruitment process for a new deputy chief has begun. Training is expected to be a key area of focus for this role.

The Department currently works with third-party training providers, and it should continue to do so. These third-party providers help the Department meet compliance requirements, as well as provide education for the Department's officers by facilitating NFPA courses (such as Fire Officer 1, Fire Officer 2, Fire Instructor, and Safety Officer). If the Department continues to support its officer development program effectively, it will greatly benefit leadership within the organization.

Overall, the recommendations outlined above are intended to relieve some of the pressure that is currently on the Fire Chief. This relief will allow the Fire Chief to spend more time working on a strategic vision for the Department. The recommendations are also meant to help the Department meet firefighter training requirements and certification requirements. Lastly, implementing the recommendation will help ensure that the Department's training program adheres to the organization's Council-approved level of service.

14.3.1 Recruit Training

Context

Each firefighter completes approximately 400 hours of recruit training when they begin working in the fire service. Due to the costs and time commitment involved in providing training for recruits, 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 benchmark 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 two processes for training recruits (depending on whether a recruit has the necessary certifications).

Process for Recruits with Certification

A recruit is provided with an orientation session, and they are integrated into their fire station. The recruit then works with the station captain and other instructors for three months. During this period, the recruit's skills are reviewed to ensure they meet specific NFPA job performance requirements. This skills-check must take place before the recruit's abilities are certified by the Department.

Process for Recruits with No Certification

A recruit is assigned to a local third-party training provider to complete the required training. Once the training is completed, the recruit undergoes NFPA testing and a practical demonstration to prove they have the skills to meet the applicable certification requirements.

14.3.2 Provincial and Municipal Training

Context

In addition to recruit training and in-service training, all firefighters must complete applicable provincial and municipal training. For instance, all employees of public sector organizations must complete AODA training, and all workers who are exposed to hazardous situations and materials must complete WHMIS training.

Findings

As of this FMP, the Department does not complete the provincially mandated training (such as WHMIS training) that it is required to conduct on an annual basis. Going forward, the Department should explore ways to incorporate this mandated training into its training schedule. For example, the Department can consider facilitating the training virtually, which may help ensure all of the Department's firefighters have a chance to complete the training.

14.3.3 Officer Development Program

Context

According to the OHSA, employers should ensure their supervisory personnel can meet the definition of 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.¹⁰

The legislation about competent supervisors applies across different employment sectors, including the fire service.

¹⁰ Ontario.ca, "Supervisors under the Occupational Health and Safety Act."

Findings

The Department has assigned a district chief and a station captain to all three of its fire stations. However, the personnel assigned to each station have differing amounts of experience with officer duties. Some personnel have numerous certifications that have been attained over extended periods. These certifications include designations that were acquired at job sites outside of the fire service. Some of the Department's other firefighters have worked in the fire service for many years, and they have obtained grandfathered status from the OFM.

Upon review, the Department does not have a structured officer development program. Currently, the Department relies on individuals who have acquired their skills and knowledge from their time working for other fire departments or completing other relevant experience. Currently, five of the Department's officers are certified to the requirements of NFPA 1021, Level I. The Department is also working on providing its other officers with the required training and certification to meet the provincially mandated certification requirements by the compliance date.

Going forward, the Department should develop a succession planning policy for officer development.

14.4 Driver Training and Licencing

Context

It is critically important for fire departments to understand current certification and regulatory requirements associated with driver training and licencing. 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 firefighter to operate a fire apparatus, it puts the safety of the driver and others at risk. The risk exists from the time the vehicle leaves the fire station to the time it returns.

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." In addition, 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." Section 21 Guidance Note #6-7 recommends having firefighters complete theoretical and practical training if their role involves operating a fire apparatus.

Findings

As this FMP, approximately 73 per cent of the Department's personnel hold a DZ licence. These personnel have certifications that adhere to compliance requirements

associated with air brakes, as well as regulations issued by the Ministry of Transportation.

Going forward, the Department should ensure that it has a program to maintain a consistent level of personnel with DZ licences and associated certifications. Doing so will help the Department ensure that it has personnel who can meet the requirements associated with operating fire service vehicles. This program will also be important if the Department must recruit new firefighters to replace departing personnel, as the new firefighters may not have their DZ licences at the time they join the Department.

14.5 Recommendations

Recommendations regarding training and certifications in McNab/Braeside are as follows:

- 14-1. After the new deputy chief position is filled, the Fire Chief should reassess the structure and operations of the current training committee for the McNab/Braeside Fire Department. The committee should help plan and implement the fire department's training program and officer development program.
- 14-2. The Fire Chief should continue to work with third-party companies and regional training centres to help the McNab/Braeside Fire Department's officers and firefighters complete their required training and obtain their applicable certifications before the legislated compliance deadlines.
- 14-3. The Fire Chief should continue to work with the McNab/Braeside Human Resources Department to develop a process/program for ensuring that all firefighters of the McNab/Braeside Fire Department complete their provincially mandated training.
- 14-4. The Fire Chief should develop a succession planning policy for the McNab/Braeside Fire Department.

15.0 Performance Standards

15.1 Overview of Performance Standards

After a municipal council sets the types and levels of service its fire department is authorized to provide, the councillors should consider setting performance standards.

Performance standards are a set of expectations that must be met for a fire department to be considered effective. These standards are important for several reasons:

- First, performance standards help to ensure that employees understand what is expected of them in their roles, which can help reduce confusion and promote accountability.
- Second, performance standards provide a clear basis for evaluating performance.
- Finally, performance standards can help to improve overall business performance by providing a framework for continuous improvement.

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, a fire department must respond to emergencies with an adequate number of personnel and resources to deliver fire protection and suppression services safely and effectively.)

15.2 Response Benchmarks

For many years, fire departments analyzed their performance levels by comparing their initial response times to a standard metric. Many agencies now agree that fire departments should set their own benchmarks to measure their performance levels. Setting this benchmark is known as determining an effective response force.

When a fire department wants to determine the type of effective response force it should provide, the following factors should be examined:

- past performance
- fire station locations
- minimum dispatch, assembly, and travel time
- type of risk
- number of responses to different types of occupancies

By examining the factors listed above, a fire department can identify its strengths and weaknesses. This information can help the fire department determine how often it has provided 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 fire department is operating at optimal capacity during emergency responses. For example, suppose a fire department sets its total response time at 14 minutes and aims to achieve that time during 90 per cent of its responses. If so, the fire department assumes that 10 per cent of its responses will exceed 14 minutes. By analyzing responses that fall short of its benchmarks, a fire department can identify the specific 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 operating standards.

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, when setting a level of service for a fire department, it is important to make sure that all decisions adhere to applicable legislation and guidelines, such as:

- FPPA
- OHSA
- NFPA standards
- OFM general guidance and the Public Fire Safety Guidelines

15.3 Criteria Used to Determine Emergency Response Benchmarks

15.3.1 NFPA Standards

There are specific NFPA standards that volunteer and composite fire departments should review when determining their emergency response benchmarks. These industry-recognized standards are:

- 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*¹¹

¹¹ NFPA 1720 is scheduled to be consolidated into NFPA 1750 in 2025.

Table 18 shows the staffing levels and response time standards that NFPA 1720 provides for urban, suburban, rural, and remote areas.¹² The table defines each type of demand zone by its demographics and lists the minimum number of staff needed for responses in each area, as well as the expected response time. (For reference purposes, the NFPA uses the letters AHJ to abbreviate the term Authority-Having Jurisdiction, which refers to the agency that is responsible for an emergency scene.)

Table 18. Staffing and response time standards as per NFPA 1720.

Demand Zone ¹³	Demographics	Minimum Staff to Respond ¹⁴	Response Time ¹⁵ (minutes)	Meets Objective (%)
Urban area	> 1,000 people/mi ² (2.6 km ²)	15	9	90
Suburban area	500-1,000 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

15.3.2 Effective Response Force

The term effective response force refers to the following information:

- 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 to arrive at the scene of an emergency.

A fire department can determine its optimal effective response force by completing a critical tasks analysis for each type of emergency response it is required to provide.

¹² Table 18 is adapted directly from NFPA 1720.

¹³ A jurisdiction can have more than one demand zone.

¹⁴ Minimum staffing includes members responding from the AHJ's department and automatic aid.

¹⁵ Response time begins upon completion of the dispatch notification and ends at the time interval shown in the table.

Completing a critical tasks analysis allows a fire department to standardize its response protocols and ensure the appropriate number of personnel are dispatched for each type of emergency response.

A fire department can use the following steps to conduct a critical tasks analysis:

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.

Fire departments can either assign critical tasks to multiple personnel or carry them out 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 instance, when a fire occurs in an area without 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 the required suppression duties.

Various fire service authorities have developed general guidelines about resource deployment. Table 19 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).

Table 19. 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

Personnel	Critical Tasks	Firefighters Required
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 the tasks needed on the fireground.	1
Total		14

15.3.3 Response Times

All fire departments should retain accurate records of their historical response times. This information is essential for measuring performance levels, making strategic decisions, and determining service alternatives.

Table 20 defines the four steps involved in dispatching a response to an emergency call.

Table 20. Description of response time components.

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").

Step	Description	Actions
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 measuring how long it takes to complete each of the four steps listed 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). However, in order for historical data to be useful, fire departments must ensure they track their response times consistently across all types of responses.

15.3.4 Response Statistics in McNab/Braeside

Response Times

Because the Department is a volunteer-based fire services provider, the number of personnel available to respond to an emergency call can vary depending on the time of the day, day of the week, and even time of the year.

Types of Responses and Loss Statistics

As a best practice, the Department should track the types of responses it conducts each year. The Department should also keep track of the associated loss statistics. The Department can use that data to analyze the level of demand in McNab/Braeside.

Analyzing response statistics will help the Department determine the best ways to establish an effective response force for each type of property fire that may occur in the community. The analyses will also help the Department determine an appropriate focus for its fire prevention programs.

Table 21 lists the number and type of fire responses made by the Department from 2020 to 2024.

Table 21. Fire responses, 2020 to 2024.

Type of Response	2020	2021	2022	2023	2024	Total
Loss fires: structures	1	4	4	13	7	29
Loss fires: vehicles	2	2	2	1	27	34
No loss fires	4	2	0	4	7	17
Non-fire calls	80	86	93	105	51	415
Total	87	94	99	123	92	495

Table 22 lists the dollar loss amount in McNab/Braeside from 2019 to 2023 (sorted by occupancy group).

Table 22. Dollar loss in McNab/Braeside by occupancy type, 2019 to 2023.

Occupancy	2019	2020	2021	2022	2023	Total
Group A: assembly	\$0	\$0	\$0	\$0	\$0	\$0
Group B: care, treatment, and detention	\$0	\$0	\$0	\$0	\$0	\$0
Group C: residential	\$354,000	\$26,000	\$550,000	\$745,000	\$2,335,000	\$4,010,000
Group D & E: mercantile and commercial	\$0	\$0	\$0	\$0	\$0	\$0
Group F: industrial	\$0	\$0	\$0	\$0	\$0	\$0
NFBC structure	\$0	\$0	\$0	\$0	\$0	\$0
Other structure	\$10,000	\$0	\$0	\$505,000	\$23,000	\$538,000
Vehicle fire	\$97,500	\$10,500	\$26,000	\$17,000	\$75,000	\$226,000
Yearly Loss	\$461,500	\$36,500	\$576,000	\$1,267,000	\$2,433,000	\$4,774,000

Benchmarking

As of this FMP, the Department is keeping track of how many of its firefighters respond to each structure fire that occurs in the community. However, the Department does not measure its performance level against a response time benchmark. The Department also lacks a records management system that the Fire Chief can use to track necessary data effectively.

In order to establish an effective response force and set a benchmark that is applicable to the needs of McNab/Braeside, the Department should take the following steps:

1. Review and analyze the Department's historical data from responses to dollar loss fires.
 - a. This process should involve comparing the response statistics to industry standards and response statistics from municipalities with similar demographics.
2. Review the locations of the Department's fire stations and determine a reasonable target time in which the Department's personnel should complete each step of an emergency response.
 - a. The Department should also review where the fire stations in neighbouring municipalities are located and then consider whether specific automatic aid or mutual aid agreements might meet McNab/Braeside's fire protection needs.
3. Determine the percentage of responses during which the Department's personnel should achieve its emergency response benchmark.
4. After establishing a benchmark, analyze all responses that take longer than the target response time in order to identify issues that the Department can address to reduce future response times.

Analyzing its response statistics will provide the Department with the knowledge it needs to recommend and implement effective fire protection and prevention strategies. The analyses will also help the Department ensure that it achieves its performance standards, protects firefighter safety, and delivers services that meet the emergency response and fire protection needs of McNab/Braeside's residents and businesses.

15.4 Recommendations

Recommendations regarding performance standards in McNab/Braeside are as follows:

- 15-1. The Fire Chief should continue to monitor the McNab/Braeside Fire Department's effective response force in order to determine whether the fire department needs to increase its staffing levels (specifically for responses during daytime hours).

16.0 Fire Station Assessments

16.1 Overview of Fire Station Assessments

A fire station assessment evaluates a fire station to determine whether the building is likely to support its fire department's current and anticipated operations. There are several key factors that all fire station assessments should consider, including building size, features, age, and condition.

The results of a fire station assessment can help a fire department decide whether its fire station is likely to support its needs or whether it is time to renovate or replace an existing facility.

16.2 Key Considerations of a Fire Station Assessment

Context

The size of a fire station is of primary importance. 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. Modern fire stations should have the capacity and resources to furnish a variety of spaces, including:

- administrative areas with technology that can support data entry, reporting, and related functions
- training rooms that are large enough to accommodate all firefighters assigned to the station
- storage areas for materials and firefighting equipment
- dedicated space for PPE storage
- dedicated space for exercises
- rooms to support the physical aspects of firefighter wellness
- kitchen facilities
- washrooms and shower facilities that support gender equality

Fire departments also need fire stations that are easy to renovate or furnish with new technology or equipment. Having a fire station that is easily adaptable will help support a fire department as it grows or begins offering new services.

The age of a fire station is another 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. For instance, fire stations in Ontario must comply with the terms of the AODA, and the OBC requires new buildings to be strong enough to withstand hurricanes.

Findings

As noted in section 3 of this document, the Department currently operates three fire stations:¹⁶

- Fire Station 1 – Glasgow (located in Arnprior)
- Fire Station 2 – White Lake (located in White Lake)
- Fire Station 3 – Braeside (located in Braeside)

During the FMP development process, The Loomex Group completed a fire station assessment for the Department. The results of this assessment are contained in a separate document that provides details regarding the condition of each station.

The following subsections of this FMP will examine the functionality of the three fire stations.

16.2.1 Fire Station 1 – Glasgow

Station 1 – Glasgow (shown in Figure 5) was constructed in 1989. This station currently houses a pumper, a pumper/tanker, and a rescue truck. The staffing complement at this fire station includes one district chief, one captain, and ten firefighters.



Figure 5. Exterior of Fire Station 1 – Glasgow.

¹⁶ For a map that illustrates the locations of the Department's fire stations, see section 3.2 of this FMP.

Upon review, the apparatus floor at Station 1 – Glasgow has a limited amount of space (as shown in Figure 6). This lack of space creates various health and safety concerns, as well as operational challenges.



Figure 6. View of the apparatus floor area at Fire Station 1 – Glasgow.

Due to the limited space on the apparatus floor area, the firefighters assigned to Station 1 – Glasgow must store their gear in close proximity to the fire apparatus housed at the facility. This arrangement presents several health and safety concerns, as the gear may become contaminated by exhaust or other substances emitted by the fire apparatus. Another safety concern is that the Department's firefighters may not have enough room to put on their gear when a fire apparatus is leaving the station.

From an operational perspective, the apparatus floor area at Station 1 – Glasgow was not built to accommodate modern types of fire apparatus, which are much larger than comparable vehicles from years past. As a result, the Department's firefighters do not have adequate clearance to maneuver around the vehicles parked in the bay. In addition, a responding vehicle must be moved out of the way before a second or third vehicle can be dispatched from the station safely. Another concern is the lack of adequate ventilation.

Other functionality concerns associated with Station 1 – Glasgow are as follows:

- There is limited space within the fire station to conduct training.
- The washroom facilities are outdated. Aside from practical concerns, the facilities do not meet current legislative requirements, such as accessibility and gender-related requirements (as outlined in the AODA).
- The firefighters assigned to the facility do not have a dedicated area to store their PPE. Instead, the gear is stored in a multi-purpose area (as shown in Figure 7).



Figure 7. Current bunker gear storage area at Fire Station 1 – Glasgow.

As a result of the issues noted above, Station 1 – Glasgow no longer has the functionality to support the Department's operations. Going forward, McNab/Braeside should consider replacing the fire station in order to solve the issues that have been identified with the current facility. A new fire station would also be more likely to support the Department's operations in a way that meets the community's current and anticipated needs.

16.2.2 Fire Station 2 – White Lake

Station 2 – White Lake Station (shown in Figure 8) was constructed in two phases. Initially, in 1976, the building was constructed as a single-apparatus bay. A second bay and local community centre were added in 1988. The facility currently houses a pumper and a pumper/tanker. The staffing complement at this fire station includes one captain, one lieutenant, and ten firefighters.



Figure 8. Exterior of Fire Station 2 – White Lake.

Upon review, Station 2 – White Lake has many of the same issues that are present at Station 1 – Glasgow. For example, Station 2 does not have a dedicated area for the station's firefighters to store their gear, and the equipment is kept in close proximity to the various fire apparatus that are housed at the site. This arrangement means there is a risk that the gear will become contaminated by exhaust or other substances emitted by the fire apparatus.

The small size of Station 2 – White Lake also means there is a limited amount of space to maneuver the vehicles housed at the facility. From a safety perspective, this lack of space does not provide the station's firefighters with enough room to put on their gear safely when a fire apparatus is leaving the station. The station also lacks an adequate ventilation system.

From an operational perspective, Station 2 – White Lake does have a dedicated space that is adequate for conducting in-class training. However, the overall size of the facility is restrictive.

Despite the limitations that are present at Station 2 – White Lake, the facility's proximity to the White Lake community makes the building a strategic and vital facility for emergency response purposes. Going forward, the Fire Chief should ask Council to use the budget process to set aside funding for necessary maintenance and upgrades at Station 2. Ideally, this funding should be set aside annually to help ensure the fire station reaches its full life expectancy.

16.2.3 Fire Station 3 – Braeside

Station 3 – Braeside (shown in Figure 9) was constructed in 1998. This station currently houses a pumper, a mini pumper, a tanker, and a brush truck (including a utility terrain vehicle and trailer). The staffing complement at this fire station includes one district chief, one captain, and 15 firefighters.



Figure 9. Exterior of Fire Station 3 – Braeside.

Station 3 – Braeside has many of the same limitations as the fire stations in Glasgow and White Lake. These limitations include the lack of dedicated PPE storage space and the lack of an adequate ventilation system. Station 3 – Braeside also presents the same health and safety concerns noted in section 16.2.1 and section 16.2.2.

Despite the limitations that are present at Station 3 – Braeside, the facility's proximity to the Braeside community makes the building a strategic and vital facility for emergency response purposes. In addition, the station has a dedicated space that is adequate for conducting in-class training, as well as proper washroom facilities.

Going forward, the Fire Chief should ask Council to use the budget process to set aside funding for necessary maintenance and upgrades at Station 3. Ideally, this funding should be set aside annually to help ensure the fire station reaches its full life expectancy.

16.3 Summary of Fire Stations

A review of the three fire stations in McNab/Braeside reveals that all locations have similar issues. These issues present health and safety concerns and may impact the Department's operations. Most of the issues stem from spatial constraints and the lack of building features required to support the Department's current and future operations. It is important to address these challenges in order to ensure the three fire stations can meet applicable standards and legislation.

Before McNab/Braeside can begin making the necessary improvements to its fire stations, the township needs to evaluate several factors. These considerations include the age of the facilities and the amount of additional space required at each facility (based on the number of responders assigned to the specific stations, as well as the associated call volumes). The township must also decide whether to renovate the existing fire stations or construct new facilities, as both of these options have significant financial implications.

Based on the results of the fire station assessments that were conducted during the FMP development process, McNab/Braeside should consider replacing one of the existing fire stations. The recommended course of action is the construction of a new facility on the site of the existing Glasgow station. There are several advantages of building a new station. For instance, McNab/Braeside could design the new station to align with modern fire service requirements, which is more beneficial than merely expanding the existing layout. Additionally, the new station could be situated on land already owned by the township, which means that ample space for training, parking, and storage should be available.

From a legislative perspective, constructing a new station would also enable the integration of up-to-date design standards, code revisions, and technological advancements. Furthermore, the architectural style of the new facility could reflect the recent construction of other municipal buildings, creating a cohesive appearance within the McNab/Braeside community.

In light of the considerations noted above, The Loomex Group recommends pursuing the option of a new facility in Glasgow. The company also advises McNab/Braeside to discuss a timeline for upgrading and repairing Station 2 and Station 3, as these facilities will also require investment in the future. (However, if McNab/Braeside chooses to proceed with building a new fire station at the Glasgow site, major renovations to Station 2 and Station 3 could be postponed until the capital budget allows for further review and investment.)

16.4 Recommendations

Recommendations regarding the fire stations in McNab/Braeside are as follows:

- 16-1. The Fire Chief should develop a report that explains it is beneficial to replace Station 1 – Glasgow with a new station that is located at (or near) the site of the current facility. The report should emphasize that a new station will help support the current and future needs of the McNab/Braeside Fire Department, as well as help protect the safety of the community and its firefighters. The report should be submitted to Council for consideration and approval.
- 16-2. The Fire Chief should prepare a report that outlines which upgrades must be completed in order to ensure the fire stations in McNab/Braeside comply with current code requirements and accessibility legislation (including the AODA). The report should be submitted to Council for consideration and approval.
- 16-3. Council should use the regular budgeting process to provide the McNab/Braeside Fire Department with annual funding that can be used to complete maintenance work that is necessary to ensure all fire stations in the community reach their life cycle expectancy.

17.0 Water Supply

17.1 Overview of Water Supply

Fire departments need to know which kind of water supplies are available in their communities. A reliable water supply is essential for delivering effective fire suppression services.

In the context of fire suppression, a water supply is either a municipal water supply (which is found in hydrant-protected areas) or a rural water supply (which is found in areas without fire hydrants).

17.2 Municipal Water Supply

Context

In hydrant-protected areas, municipal water and distribution systems provide the water supply that firefighters use for emergency responses. This kind of system must have the capacity to provide firefighters with a water supply that has a sufficient flow for firefighting operations.

A water system must also support the components of the local distribution system, including fire hydrants. Each 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)

In addition to meeting the standards listed above, municipalities are responsible for arranging the fire pump flow testing, hydrant testing, repairs, and replacements that are necessary for keeping their water and distribution systems operational.

Findings

McNab/Braeside does not contain hydrants that are recognized under the NFPA's recommended best practice for testing and marking.

In the place of hydrants, the township operates a pump system that the Department can use to pump water for fire protection purposes. This pump system is located at Fire Station 2 – White Lake.

17.3 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 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.

Findings

McNab/Braeside has an agreement with the Town of Arnprior (through mutual aid) that provides the township with access to an additional water supply. The terms of the agreement allow the Department to access the municipal hydrants (located in Arnprior) that are installed on the border between Arnprior and McNab/Braeside. The township can also receive support through the Renfrew County Mutual Aid Plan and its agreement with Lanark Highlands.

In terms of alternative water supplies located within the community, McNab/Braeside has two cisterns. One of the cisterns is located at the township’s municipal offices, and the other cistern is located at the John A. Gillies facility (in the community of Braeside). Both cisterns have a storage capacity of 29,000 gallons.

McNab/Braeside has also installed four dry hydrants throughout the community. These dry hydrants are strategically located at the following sites:

- Burnstown Beach (Madawaska River)
- White Lake (across from Fire Station 2 – White Lake)
- Young Side Road (Madawaska River)
- Red Pine Bay Braeside (Ottawa River)

As of this FMP, McNab/Braeside contracts a third-party supplier to inspect the dry hydrant locations on an annual basis. During these inspections, the third-party supplier ensures that the sites are inspected, tested, and clear for use by the Department.

Figure 10 shows the dry hydrant located at White Lake.



Figure 10. Dry hydrant installed at White Lake.

In addition to the four dry hydrants identified above, McNab/Braeside has agreements with Ontario Power Generation (for dry hydrant access) and the Ministry of Natural Resources (for forest fire management). Ontario Power Generation has a dry hydrant installed at the Stewartville Dam on the Madawaska River (shown in Figure 11).

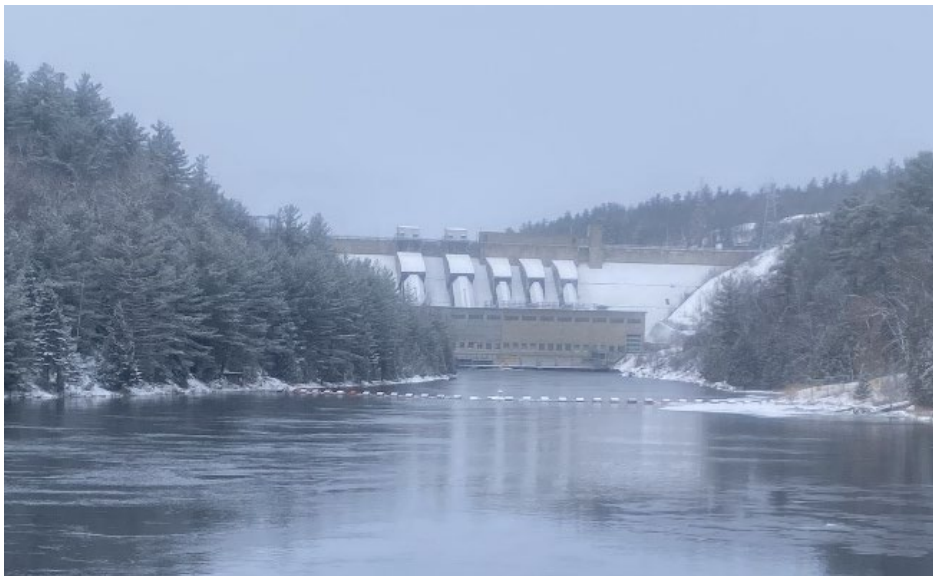


Figure 11. Stewartville Dam (a dry hydrant location).

Going forward, the Department should work with Council to continue expanding McNab/Braeside's current dry hydrant program. The continued expansion should help ensure the township has a water supply that can meet the fire protection demands associated with a growing community.

The following locations should be considered for the expansion of the dry hydrant program:

- Bayview Road Marina
- Millridge Road
- Rhoddy's Bay
- Sand Hook (Nielson Street)
- Sand Point Warf
- Stewart's Bay
- Waba Museum Boat Launch
- White Lake Point Road

In addition to helping McNab/Braeside prepare for community growth, installing dry hydrants at the sites listed above will help enhance the Department's emergency response capabilities. Notably, the additional dry hydrants should help reduce the drive time needed to provide a water supply in the non-hydrant areas within the township.

17.4 Recommendations

Recommendations regarding the water supply in McNab/Braeside are as follows:

- 17-1. The Fire Chief should continue with efforts to expand the dry hydrant program in McNab/Braeside in order to ensure that dry hydrants are installed in strategic locations throughout the township. Doing so will help ensure the McNab/Braeside Fire Department has access to a reliable water supply for emergency response purposes. This initiative should be supported by Council through the budget process.
- 17-2. The Fire Chief should review all of the by-laws and agreements that McNab/Braeside has established with third parties and mutual aid partners regarding water supply. The purpose of this review should be to ensure that all current by-laws and agreements are meeting the needs of the McNab/Braeside Fire Department. The Fire Chief should also ensure that applicable by-laws and agreements are updated on a regular basis.

18.0 Asset Management

18.1 Overview of Asset Management

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 in order to 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.

18.2 Fire Fleet Purchases, Requirements, and Upkeep

18.2.1 Costs Associated with a Fire Fleet

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.

In addition to the initial purchase, the ongoing maintenance and eventual replacement of the vehicles in a fire fleet can 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.

18.2.2 Fire Fleet Safety Standards

Over the years, the types of 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:

- Occupational Health and Safety Act
- 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.

18.2.3 Inspections, Testing, and Maintenance

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:

- 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), the local 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.

18.2.4 Testing Schedule for Older Vehicles

The age of the vehicles in a fire fleet significantly influences the maintenance, testing, and inspections that are necessary to keep those vehicles operational.

There are several standards that fire departments can use to assess the functionality of the vehicles in their fire fleets. As noted in section 18.2.2, these standards include NFPA 1901, NFPA 1912, and ULC S515-04. Fire departments can also review the performance standards and technical updates developed by FUS, a Canadian organization with extensive fire protection and prevention experience. These standards are designed to help fire departments manage their fire fleets effectively, especially as vehicles age and become less reliable.

In 2004, Canada adopted ULC S515-04 as a national standard. This standard (and the related technical guidelines) provides fire departments with valuable information for assessing and replacing the vehicles in their fire fleets. Adhering to this standard can help a fire department maintain effective service levels both now and in the future.

FUS has developed a testing schedule that fire departments can reference when evaluating used or rebuilt vehicles. This schedule (shown in Table 23¹⁷) offers a framework for evaluation, and it is essential for identifying deficiencies in vehicles that are over 20 years old. Common concerns for older vehicles may include slower acceleration speeds, reduced braking capability, and structural weaknesses (due to load wear on the chassis and an extended use of the pump system). By resolving issues like these, a fire department can help protect the safety of its firefighters, as well as the community they serve.

¹⁷ This table is adapted from a technical bulletin produced by Fire Underwriters Survey called “Insurance Grading Recognition of Used or Rebuilt Fire Apparatus.”

Table 23. Tests required to meet industry standards and insurance requirements.

Reason for Testing ¹⁸	Test at Time of Purchase (New or Used)	Testing on an Annual Basis	Testing at 15 Years	Testing at 20 Years ¹⁹	Annual Testing at 20 to 25 Years	Testing After Extensive Repairs ²⁰
Recommended for fire insurance purposes	Acceptance test ²¹ if new Service test ²² 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 ²³	Acceptance test	Annual service test	Annual service test	Annual service test	Annual service test	Service test

¹⁸ 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.

¹⁹ 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.

²⁰ After extensive repairs, testing should occur regardless of apparatus age (within reason).

²¹ Acceptance tests consist of a 60-minute capacity test and a 30-minute pressure test.

²² Service tests consist of a 20-minute capacity test and a 10-minute pressure test (in addition to other listed tests).

²³ 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.

18.3 Fire Fleet Replacement Schedule

18.3.1 Basic Replacement Guidelines

When a fire department wants to conduct a review of its fire fleet, the following questions should be considered:

- What vehicles comprise the fire department's current fire fleet?
- What types of responses does the fire department make?
- What are the fire department's available staffing levels for responses?

It is important to keep these considerations in mind because they will help identify the fire department's current and anticipated needs. Those needs will influence which vehicles should be purchased.

Once a fire department has identified which vehicles it is likely to need for its fire fleet, a meeting should be held with the local municipal council to develop an appropriate strategic plan and fleet replacement schedule.

A fleet replacement schedule should consider several factors for each vehicle in a fire fleet, such as:

- age of current vehicle
- availability of replacement parts
- number of engine hours
- safety features
- current costs of maintenance and servicing
- reliability
- features and technology of current vehicle compared to new vehicle

The following recommendations apply to vehicles that are more than 15 years old but properly maintained and in a serviceable condition:

- Place the vehicle in reserve status.
- Upgrade the vehicle in accordance with NFPA 1912.
- Incorporate as many features of the current fire fleet standard as possible.

18.3.2 Economic Considerations and Possible Delay Times

Many municipalities create five-year or ten-year fleet replacement schedules. Because these schedules are forecasting purchases over a multi-year timeframe, they need to consider potential economic changes, as well as changes to expected delivery dates.

In order to remain relevant, fleet replacement schedules must take into account the impact of inflation. Price changes can result from various factors, including increased costs for materials and labour, as well as disruptions in the supply chain. When inflation occurs, suppliers may raise their prices for new vehicles, even if a municipality has a fixed-price agreement or has already placed an order. Given the unpredictable nature of inflation, it is advisable for municipalities to include a contingency plan in their budgets for capital replacements. This strategy can help manage potential price increases for their vehicle orders and set aside funds for maintenance and service costs.

Supply and demand can also influence the timing of vehicle replacements. Currently, there is a significant backlog in vehicle orders due to supply chain delays caused by the COVID-19 pandemic. This backlog can lead to longer delivery times for new vehicles. Therefore, it is recommended that fire departments and municipalities schedule their orders at a time that is practical but flexible enough to account for potential delays in delivery.

18.4 Vehicle Prioritization and Fleet Deployment

A fire department can classify each vehicle in its fire fleet as one of the following priorities:

1. **Primary vehicle:** A primary vehicle is the first-run vehicle out of the fire station for all types of emergency responses.
2. **Secondary vehicle:** A secondary vehicle is the second-run vehicle out of the fire station. The nature of an emergency call will dictate which secondary vehicle the fire department dispatches.
3. **Support vehicle:** A support vehicle is a vehicle that a fire department uses to support response operations at emergency sites.

It is imperative for fire departments to dispatch an appropriate number of vehicles and an adequate number of personnel in response to calls for fire protection or emergency services.

A fleet deployment model outlines which vehicles a fire department will dispatch in response to emergency calls. It is essential to have a well-considered fleet deployment model, as fire departments with multiple stations may have different vehicles and resources housed at each facility.

18.5 Fire Fleet in McNab/Braeside

18.5.1 Current Fire Fleet and Replacement Schedule

Table 24 lists the vehicles that comprise the Department's current fire fleet. The table also includes the proposed replacement schedule for these vehicles.

Table 24. Fire fleet in McNab/Braeside.

Vehicle #	Make and Model	Station	Year Built	Replacement Year
9862	Rescue Truck	1	1995	2036
9620	International Rescue Pump	1	2010	2035
9713	International Pump/Tanker	1	2020	2045
9619	GMC Top Kick	2	1996	2024/2025
9714	International Pump/Tanker	2	2016	2035
9616	Spartan Pumper	3	1996 (rebuilt in 2016)	2030
9849	Ford Brush Truck Pickup	3	2007	2030
9715	International Tanker	3	2010	2043
9617	Mini Pumper-International	3	2015	2035
N/A	UTV with trailer	3	2021	2031
N/A	GMC Chief Truck 3500	Unassigned	2019	2029
N/A	Volvo Tanker (Public Works Department)	N/A	1990	TBD

McNab/Braeside has taken steps to review its vehicle replacement schedule in collaboration with the Department. Although the Department's recommendations have been integrated into the township's asset management plan, some planned purchases have not occurred.

As of this FMP, the 1996 pump truck housed at Station 2 (Unit 9616) has surpassed recommended service limits. This vehicle was initially set for replacement in 2021—as outlined in McNab/Braeside's asset management plan—and a new vehicle was approved for purchase in 2025. In addition, the Spartan pumper will be relocated to Station 2 in accordance with the asset management plan.

Even though McNab/Braeside has allocated funds for the Department, the purchase of new vehicles has been postponed. These delays have prolonged the use of older models. This scenario increases maintenance costs and complicates access to replacement parts, and it can also result in higher initial expenses for future purchases. Furthermore, postponing updates to the township's asset management plan for vehicle replacements introduces other issues that the McNab/Braeside may not have fully considered. These risks include potential price increases due to inflation and manufacturing costs, as well as delays in receipt of new vehicles due to supply chain issues.

Overall, there are numerous monetary and safety concerns related to the Department's current vehicle replacement plan. Due to these concerns, the Department may not be able to obtain insurance coverage from external providers. (However, the Department may decide to self-insure vehicles which are not covered by third-party providers.) In addition, as vehicles continue to exceed their intended lifespan, the Department may experience increased downtime and a higher likelihood of failures during emergencies. During the SWOT analysis that was conducted for this document, the Department's firefighters advised that the older vehicles in the township's fire fleet experience maintenance issues and have difficulty maintaining a high level of reliability. Collectively, these issues can jeopardize firefighter safety and impact the Department's ability to respond to emergencies effectively.

Going forward, McNab/Braeside should prioritize the maintenance and purchase of vehicles for the Department's fire fleet. These vehicles are necessary for protecting the Department's firefighters as they deliver services to the community. In addition, it is crucial for the Department to have reliable vehicles that can withstand the extreme conditions encountered during emergency responses. Although a fire fleet is not continuously in use, it is used under more intense conditions than vehicles used by other municipal departments.

18.5.2 Vehicle Prioritization and Deployment

The Department has distributed its fire fleet (including its primary, secondary, and support vehicles) throughout McNab/Braeside. These vehicles are distributed in a manner that meets the needs of the township and its residents. The Department has made exceptions regarding the availability of vehicles and firefighters to address specific concerns, such as daytime staffing levels.

Upon review, the Department's running assignments and fleet distribution both indicate that all three of the Department's fire stations are equipped with one primary pump and one tanker to provide initial responses to emergencies.

The Department also has a rescue vehicle (located at Station 1) that can support select emergency responses. The location of this vehicle allows the Department to respond to

emergencies between Station 2 and Station 3, and it also allows the Department to respond easily to incidents on Highway 17.

Overall, the Department's current fleet deployment model ensures that the organization can dispatch an appropriate number of vehicles and firefighters to calls that occur throughout McNab/Braeside. This deployment model also supports the requirements of the established running assignments. When McNab/Braeside purchases new vehicles (as recommended in section 18.5.1), it should continue to use a similar deployment model.

18.6 Fire Service Equipment

18.6.1 Standard Equipment and Systems

Context

In addition to different types of fire apparatus, firefighters rely on a range of equipment to perform various tasks on the fire ground.

Some examples of fire service equipment are as follows:

- fire hoses and nozzles
- fittings
- ladders
- generators and lighting
- ventilation fans and ventilation saws
- extrication tools
- portable pumps
- hand tools (such as axes and Halligan bars)
- gas detectors
- thermal imaging cameras

Each piece of fire service 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. Doing so will assist with budget planning for any necessary repairs or replacements.

Findings

The Department has a range of fire service equipment. This equipment is maintained on the Department's fire apparatus, as well as in the organization's fire stations. The

maintenance work is completed by the Department's officers and firefighters on dedicated maintenance and equipment nights.

Although there is schedule in place regarding routine maintenance, the Department does not have a system to notify applicable parties about outdated or damaged equipment.

It is imperative for the organization's firefighters to have a reliable system for expediting the repair and replacement of outdated or damaged equipment. Ideally, this kind of system should also include accompanying documentation that the Department can use to track and replace equipment on both a regular basis and a lifecycle basis. Accurately tracking and managing equipment replacements is an essential way of ensuring applicable budgets remain controlled, maintained, and compliant.

In addition to completing in-house maintenance, the Department contracts third-party companies to perform various tasks, such as:

- hose testing
- ladder testing
- SCBA inspections and testing (including fit testing)
- pump testing
- PPE inspections and testing

By continuing to hire third-party companies to complete applicable testing, the Department can ensure that it remains compliant with current equipment regulations. This outsourcing also allows the Department to remain current with any changes associated with their fire service equipment, as well as the associated compliance requirements.

18.6.2 Radio Communications and Dispatch Services

Context

Radio communication systems play a crucial role during emergency responses. First responders use radio systems to communicate with dispatch services, response agencies, and other responders at emergency scenes. Without effective radio communications, it is difficult for first responders to coordinate safe, effective response efforts.

Dispatch centres serve all types of emergency responders. These centres contact the applicable emergency response agencies and provide communication services throughout an incident's duration.

Findings

As of this FMP, the Renfrew Central Ambulance Communications Centre provides dispatch services for the Department.

Upon review, the cost of receiving dispatch services from the Renfrew Central Ambulance Communications Centre is less expensive than other dispatch centres. However, the Department should consider finding a dispatch centre that specializes in assisting the fire service. By using a specialized dispatch centre, the Department can more easily track its response metrics. The fire service dispatch centre may also have the capability to assist incident commanders and fire crews during emergency responses.

Additionally, the Department uses the "Who's Responding" application to support effective communications and alert its personnel to available resources when an emergency response is needed. This system is useful for sending/coordinating notifications and responses, especially if other communication systems have failed or are temporarily unavailable.

Using the "Who's Responding" application has also allowed the Fire Chief to maintain communication links with firefighters. The Fire Chief can use the application to share response information in a timely manner, which allows additional resources to be deployed quickly and efficiently (on an as-needed basis).

In terms of radio communications, the Department currently uses a dual-purpose system that is both digital and analogue. The Department supplies its officers with radios for emergency responses, and it maintains a supply of extra radios in order to ensure these resources are always available as needed.

Although the Department has an adequate supply of radios, there are still some communication challenges that need to be addressed. For example, communication between the radios can be limited because the Department lacks in-vehicle repeaters. Due to the lack of in-vehicle repeaters, the Department must rely on towers to support good communications. There are several issues with this arrangement, such as the possibility of a tower being out of service. A tower may also be unavailable through conventional technology, or the system may have inherent failures.

In order to protect the safety of the Department's personnel (and other first responders), it is important to ensure that the Department has both good communication systems and a reliable dispatch system. Engaging a third-party radio communications company to review the current radio system in McNab/Braeside may help the township identify ways to meet its current and future radio requirements.

18.7 Recommendations

Recommendations regarding asset management in McNab/Braeside are as follows:

- 18-1. The Fire Chief should continue to work with the McNab/Braeside Finance Department to review and modify the township's capital expense reserve plan. The plan should allocate funds to replace vehicles in the McNab/Braeside Fire Department's fire fleet that have reliability issues or have exceeded their recommended life cycles.
- 18-2. The McNab/Braeside Fire Department should replace its 1996 Spartan pumper and 1996 Top-kick pumper as soon as possible to address issues related to safety, performance, reliability, and operational efficiency.²⁴
- 18-3. The Fire Chief should continue to research various fire department dispatch centres in Ontario and then prepare a report that summarizes their services and costs. At the end of the report, the Fire Chief should identify which dispatch centre is best suited to the needs of the McNab/Braeside Fire Department. The Fire Chief should then submit the report to Council for consideration and approval.
- 18-4. The McNab/Braeside Fire Department should replace its radio system.²⁵

²⁴ This recommendation was approved, and the necessary purchases were included in McNab/Braeside's 2025 budget. Delivery is expected between July and August 2025.

²⁵ This recommendation was approved, and the necessary purchases were included in McNab/Braeside's 2025 budget. Implementation of the new system is scheduled for April 2025.

19.0 Records Management System

19.1 Overview of Records Management Systems

A records management system (“**RMS**”) is a record-keeping system that an organization uses to track, store, and categorize various documents and information.

19.2 Importance of Records Management for the Fire Service

Context

It is vital for every fire department to maintain up-to-date records. Doing so ensures a fire department has 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.
- Proper records management can help a fire department reduce the risk of liability issues for itself and its municipality.
- Proper records management gives a fire department documentation that it can use to complete strategic planning.

Best practices have shown that using a formalized RMS is the most efficient way of maintaining accurate records.

Findings

The Department currently lacks a dedicated RMS, and it does not have administrative personnel to assist with records management tasks. This absence of support hinders the Department’s ability to meet ongoing legislative requirements effectively.

Implementing a dedicated RMS that has been designed for the fire service would enable the Fire Chief to analyze and address issues specifically related to the Department’s operations. The system would also help the Department track important data, such as response statistics, training and certification statistics, fire prevention initiatives, and financial recovery from motor vehicle collisions on the local 400-series highways.

McNab/Braeside should also consider providing administrative assistance for the Department’s records management program. Having an administrative professional with specialized skills complete specific tasks would be a more efficient way to handle administrative tasks. The additional support would also free up the Fire Chief’s time, allowing the role to focus more on managing emergency responses and other essential responsibilities.

19.3 Recommendations

Recommendations regarding records management systems in McNab/Braeside are as follows:

- 19-1. The Fire Chief should continue to research current types of records management systems in order to identify a system that can meet the needs of the McNab/Braeside Fire Department. The system would provide the department with improved technology that can be used for data collection and reporting. The Fire Chief should then prepare a report that supports purchasing the applicable records management system, submitting the completed report to Council for consideration and approval.
- 19-2. The Fire Chief should work with the CAO to explore whether it is possible to provide the McNab/Braeside Fire Department with administrative assistance. Specifically, the fire department would benefit from having a qualified individual manage its records management system.²⁶

²⁶ This recommendation was approved in late 2024. The part-time position was filled in February 2025.

Appendix A: List of Abbreviations

This Fire Master Plan uses the following acronyms and abbreviations:

AODA:	Accessibility for Ontarians with Disabilities Act
CEMC:	community emergency management coordinator
CISM:	critical incident stress management
Council:	Council of the Township of McNab/Braeside
CRA:	community risk assessment
Department, the:	McNab/Braeside Fire Department
E&R by-law:	establishing and regulating by-law
ECG:	emergency control group
EMCPA:	Emergency Management and Civil Protection Act, R.S.O. 1990
EMP:	emergency management program
EMPC:	emergency management program committee
EOC:	emergency operations centre
FMP:	fire master plan
FPPA:	Fire Protection and Prevention Act, S.O. 1997
FUS:	Fire Underwriters Survey
HIRA:	hazard identification and risk analysis
JHSC:	joint health and safety committee
NFPA:	National Fire Protection Association
OBC:	O. Reg. 332/12: Building Code
OFC:	O. Reg. 213/07: Fire Code
OFM:	Ontario Fire Marshal
OHSA:	Occupational Health and Safety Act, R.S.O. 1990

PPE:	personal protective equipment
RMS:	records management system
SCBA:	self-contained breathing apparatus
SCC:	Supreme Court of Canada
SOG:	standard operating guideline
WHMIS:	Workplace Hazardous Materials Information System

Appendix B: References

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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 Ontario 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 by-laws 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 and 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.