Tay Township
Fire Master Plan

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Prepared by:
THE LOOMEX GROUP

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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 they are intended to represent the best interests of Tay Township 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 the Tay Township Fire Department, the plan must be kept current with the community's needs and circumstances. At a minimum, Tay Township should review this document annually to ensure the information it contains remains up to date. In addition, Tay Township should completely revise this fire master plan every ten years.

Table of Contents

List of Tables

List of Figures

Executive Summary

Project Purpose

In January 2025, Tay Township contracted The Loomex Group to develop a fire master plan ("**FMP**").

The FMP project had the following goals:

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

The Council of Tay Township ("**Council**") and the Tay Township Fire Department ("**the Department**") can reference this FMP when making policy, organizational, capital, and operational decisions for the short term (0 to 2 years), medium term (2 to 5 years), and long term (5 to 10 years).

Project Development Process

The FMP development process included the following components:

- Evaluate the Department's structure, programs, and levels of service.
- Meet with stakeholders from Tay Township and the Department to gain first-hand insights about the community and the Department's operations.
- Analyze the current fire safety risks, needs, and circumstances in Tay Township.
- Review recent fire loss statistics for Tay Township and then compare them to current trends in order to estimate the community'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).

Each section of this FMP document also includes a "Roadmap for Improvement" and recommendations (as applicable).

Summary of Project Findings

Some of the Department's strengths are as follows:

- The firefighters believe that they have a strong and responsive leadership team.
- The leadership team and the fire services team are dedicated to their duties and the community. As a result, there is a high level of morale within the organization.
- The Fire Chief and Council have taken steps to ensure that the Department is well-equipped to complete emergency operations.

Some of the challenges facing the Department are as follows:

- The Department is experiencing the types of recruitment and retention challenges that commonly affect fire departments that rely on volunteer personnel.
- The personnel who hold officer positions have limited opportunities for leadership training, conflict resolution training, and professional development.

This FMP discusses both strengths and weaknesses in order to provide Tay Township with a realistic picture of the Department's current capabilities and limitations.

Summary of Recommendations

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

- Develop recruitment and retention initiatives for volunteer personnel.
- Conduct an external lighting and security study for the Department's fire stations.
- Continue to develop fire prevention strategies that include an annual smoke alarm program.
- Complete fire station renovations to keep pace with community growth and additional response apparatus (based on a ten-year study).
- Budget for additional firefighter protective ensembles (at least two per firefighter) in order to ensure that all of the Department's personnel have access to a full set of non-contaminated gear for emergency responses.
- Budget for an off-road vehicle and moving towards the replacement of legacy automobile extrication tools.

All of the recommendations in this FMP are designed to prioritize the safety of Tay Township's residents and firefighters. The recommendations are all within the community's means to implement, and they include ways for Tay 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.

Collectively, the recommendations suggest practical improvements that the Department can reasonably complete within the next ten years.[1]

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?
    - Short-term: Implement the recommendation within two years.
    - Medium-term: Implement the recommendation within five years.
    - Long-term: Implement the recommendation within five to ten years.
    - Ongoing: Implement the recommendation on an ongoing basis (as needed).

The purpose of the additional considerations is to give Tay Township a practical schedule for implementing the recommendations in this FMP.

List of Recommendations

Table 1 collects the 28 recommendations found in this FMP.

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

Table 1. List of recommendations.

Rec. #	Section	Recommendation	Considerations
3-1	Legislation and Standards	Tay Township should ensure that its fire stations are audited in order to determine whether they are compliant with the Accessibility for Ontarians with Disabilities Act. The audit report should be sent to Council for consideration and approval, and then steps should be taken (as needed) to ensure the fire stations are compliant with applicable accessibility requirements.	Mandatory: Yes Council approval: Yes Budget impact: Yes Timeframe: Short-term
4-1	Bylaws and Service Levels	If there are any changes to the Tay Township Fire Department's level of service as a result of implementing recommendations from the 2025 Tay Township Fire Master Plan, the establishing and regulating bylaw for Tay Township should be revised accordingly.	Mandatory: No Council approval: Yes Budget impact: No Timeframe: Short-term
4-2	Bylaws and Service Levels	Tay Township should consider referencing NFPA 1001 in its establishing and regulating bylaw to describe which skills the local firefighters are expected to have when providing interior and exterior structural firefighting services.	Mandatory: No Council approval: Yes Budget impact: No Timeframe: Medium-term
4-3	Bylaws and Service Levels	The Fire Chief should prepare a report that recommends updating Tay Township's establishing and regulating bylaw to adopt a demand zone standard (as per NFPA 1720) for residential structural firefighting. The report should then be presented to Council for consideration and approval.	Mandatory: No Council approval: Yes Budget impact: No Timeframe: Medium-term
4-4	Bylaws and Service Levels	Tay Township should consider revising its establishing and regulating bylaw to specify the previously approved levels of marine service, including the types and scope of services to be delivered.	Mandatory: No Council approval: Yes Budget impact: No Timeframe: Medium-term

Rec. #	Section	Recommendation	Considerations
4-5	Bylaws and Service Levels	The Fire Chief should consider preparing a report that recommends updating Tay Township's establishing and regulating bylaw to adopt the rescue services listed in Table 5 of the 2025 Tay Township Fire Master Plan. The report should then be presented to Council for consideration and approval.	Mandatory: No Council approval: Yes Budget impact: No Timeframe: Medium-term
6-1	Recruitment and Retention	When it is time to recruit new fire service personnel, Tay Township should consider using multiple platforms to run the Tay Township Fire Department's recruitment campaign.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Medium-term
6-2	Recruitment and Retention	Tay Township should consider implementing the suggestions made in the "Roadmap for Improvement" found in section 6.4 of the 2025 Tay Township Fire Master Plan. Doing so may help improve recruitment, retention, attendance, and firefighter mental health for the Tay Township Fire Department.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Medium-term
8-1	Occupational Health and Safety	Tay Township should consider including a proactive cancer screening program as part of the existing wellness program for its fire service personnel.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term
8-2	Occupational Health and Safety	Tay Township should consider implementing a structured firefighter fitness program to support the health, safety, and operational readiness of its fire service personnel.	Mandatory: No Council approval: Yes Budget impact: No Timeframe: Medium-term

Rec. #	Section	Recommendation	Considerations
9-1	Fire Prevention and Public Education	The Tay Township Fire Department should develop a cost-effective public education policy that addresses community needs and aligns with NFPA 1035. The policy should include a smoke/CO alarm program, an emergency management program, and other public education initiatives. The Fire Chief should submit the policy to Council for consideration and approval.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term
9-2	Fire Prevention and Public Education	The Tay Township Fire Department should formalize the use of technology for the collection and management of pre-incident planning data.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Short-term
9-3	Fire Prevention and Public Education	The Tay Township Fire Department should continue to develop a smoke alarm/carbon monoxide alarm campaign that is based on OFM guidance, past incident data, and community demographics. The scope of the campaign should also be based on the fire department's response times and available resources.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Short-term
10-1	Training and Certifications	The Fire Chief should investigate whether it is feasible to offer more "hands-on" training in order to provide firefighters with the opportunity to develop their psychomotor skills.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Short-term
10-2	Training and Certifications	In order to comply with O. Reg. 343/22, the Tay Township Fire Department should continue to ensure that its personnel who perform applicable technical rescues are certified to the appropriate standard of NFPA 1006.	Mandatory: Yes Council approval: No Budget impact: Yes Timeframe: Short-term

Rec. #	Section	Recommendation	Considerations
10-3	Training and Certifications	In order to enhance performance, improve firefighter safety, and maintain compliance with provincial occupational health and safety requirements, the Tay Township Fire Department should continue training its personnel to applicable NFPA 1006 standards for services that are not prescribed in O. Reg. 343/22.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Short-term
10-4	Training and Certifications	The Fire Chief should continue to improve the scope of the practical training that is delivered to the officers of the Tay Township Fire Department. Specifically, more scenario-based training initiatives should be offered, such as incident command practices.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Short-term
11-1	Response	The Fire Chief should develop a response standard for the Tay Township Fire Department. Ideally, the standard should be based on the rural response model outlined in NFPA 1720, which identifies the minimum number of certified firefighters required for an effective response to dollar loss fires. The proposed standard should be submitted to Council for consideration and approval.	Mandatory: No Council approval: Yes Budget impact: No Timeframe: Short-term
11-2	Response	The Fire Chief should keep pursuing the formation of mutually beneficial automatic aid agreements with neighbouring fire departments in order to improve response times and enhance coverage, particularly for dollar loss fires near municipal boundaries.	Mandatory: No Council approval: Yes Budget impact: No Timeframe: Medium-term
12-1	Fire Department Structure	The Fire Chief should develop a succession plan for the Tay Township Fire Department.	Mandatory: No Council approval: No Budget impact: No Timeframe: Short-term

Rec. #	Section	Recommendation	Considerations
13-1	Fire Station Facilities	Tay Township should implement a ten-year infrastructure plan to upgrade its fire stations. The plan should consider a range of upgrades, such as expanded apparatus bays, dedicated decontamination areas, backup power generators, enhanced security systems, and gender-inclusive facilities. All of the fire stations in Tay Township should be included in the plan, and particular focus should be given to addressing the infrastructure needs at the stations in Waubaushene and Port McNicoll.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Long-term
13-2	Fire Station Facilities	Tay Township should assess opportunities to incorporate shared classroom space and expanded parking areas into future fire station renovation projects. These upgraded areas should be designed to meet evolving training needs.	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Medium-term
14-1	Water Supply	In order to enhance visibility during emergency responses, the Fire Chief should work with representatives of Tay Township and the Ontario Clean Water Agency to install reflective rings on the side-port connections of all existing (and future) municipal fire hydrants in the community.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Medium-term
14-2	Water Supply	The Fire Chief should work with representatives of the Ontario Clean Water Agency to retrofit all of Tay Township's existing fire hydrants with Storz connections in order to improve their compatibility with modern firefighting equipment, as well as enhance water supply efficiency and support faster, safer emergency responses.	Mandatory: No Council approval: No Budget impact: No Timeframe: Medium-term
14-3	Water Supply	Tay Township should consider implementing a formalized program to ensure that all private hydrants in the community are inspected, tested, and maintained in accordance with the Ontario Fire Code.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Medium-term

Rec. #	Section	Recommendation	Considerations
15-1	Asset Management	In order to improve firefighter safety and communication, the Tay Township Fire Department should continue to explore the purchase of portable radios that have a “mayday” button function.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Medium-term
15-2	Asset Management	The Tay Township Fire Department should purchase an off-road vehicle that can be used for responses year-round. Ideally, the off-road vehicle should have an enclosed cab, four doors, and a dedicated Stokes transport area (to enhance access and patient care in remote or difficult-to-reach locations).	Mandatory: No Council approval: Yes Budget impact: Yes Timeframe: Short-term
15-3	Asset Management	Tay Township should consider developing a financial plan to replace the Department’s legacy automobile extrication equipment with modern tools.	Mandatory: No Council approval: No Budget impact: Yes Timeframe: Short-term

1.0 Introduction

1.1 Purpose of a Fire Master Plan

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

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

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

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

1.2 Fire Master Plan for Tay Township

1.2.1 Project Background

In January 2024, Tay Township contracted The Loomex Group to complete an FMP. Tay Township stated that the FMP must provide information to help the local fire service personnel make policy, capital, and organizational decisions over a ten-year timeframe.

In order to meet the stated objectives, the FMP development process reviewed the Department from legislative, administrative, and operational perspectives. The community's past, current, and anticipated fire protection needs were also considered.

Based on the findings obtained during the FMP development process, various recommendations have been developed to help Tay Township enhance community safety for its residents, visitors, and businesses. These recommendations include strategies related to governance, services, and personnel. All recommendations prioritize the safety of local residents and firefighters, and they aim to provide Tay Township with ways to enhance its services in a cost-effective manner.

1.2.2 Initial Stakeholder Engagement Process

Start-up Meeting

The Loomex Group began the FMP development process by meeting with the Fire Chief to review the project's work scope and framework.

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

Stakeholder Engagement

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

- Mayor Ted Walker
- Chief Administrative Officer Andrea Fay
- Fire Chief Shawn Aymer
- Deputy Chief Mike Moore
- officers of the Tay Township Fire Department
- firefighters of the Tay Township Fire Department

1.2.3 Data Collection Process

Document Reviews

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

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

Site Visits

Representatives of The Loomex Group spent time in Tay Township to observe the community firsthand.

Engagement with Fire Service Personnel

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

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

1.2.4 Drafting the Fire Master Plan

Developing the Fire Master Plan

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

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

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

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

Ongoing Review Process

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

Document Structure

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

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

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

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

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

1.2.5 Finalizing the Fire Master Plan

The Loomex Group will issue copies of the finalized FMP to the Fire Chief and the CAO of Tay Township. The Loomex Group will then meet with Council to present key findings and recommendations from the finalized document.

2.0 Community Characteristics

2.1 Overview of Tay Township

Tay Township is located in Simcoe County, which is in the southern portion of the Georgian Bay Region in Central Ontario.

Tay Township is a primarily rural community with many agricultural and farming operations. However, there are also a few urban areas that have commercial and industrial operations. Both the rural and urban areas offer amenities and employment opportunities in the region.

Tay Township is a popular tourist destination due to its waterfront parks, beaches, and other attractions, such as:

- Martyrs' Shrine
- Sainte-Marie among the Hurons
- Wye Marsh Wildlife Centre
- Saint-Louis Mission and Saint Ignace II Mission historical sites
- Tay Shore Trail

According to its official website, Tay Township "offers an array of community groups and clubs, passive and active sporting activities, arts and culture, [and] both rural and urban settings."[2]

2.2 History of the Tay Township Fire Department

Context

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

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

[2] Tay Township, "Community Profile."

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

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

Findings

Prior to the 1994 amalgamation of Tay Township, the community received fire protection services from the Port McNicoll Fire Department and the Waubaushene Fire Department. The Port McNicoll Fire Department was established in approximately 1983, and it operated from a fire station located at 714 3rd Avenue. The specific establishment date of the Waubaushene Fire Department could not be confirmed, but Waubaushene is known to have operated a 1927 LaFrance fire truck in the early part of the twentieth century.

Overall, there is little recorded information about the early years of the fire departments in Tay Township. However, there are visual artifacts from that period, such as a photograph of firefighters (shown in Figure 1) and a photograph of some of the community's first types of fire apparatus (shown in Figure 2).

Figure 1. Historical photo of firefighters in Tay Township (date unknown).

Figure 2. Example of early fire apparatus used in Tay Township (date unknown).

In 1994, Tay Township amalgamated with the villages of Port McNicoll and Victoria Harbour. This amalgamation led to the formation of a unified fire department that is now called the Tay Township Fire Department, a volunteer fire department that provides various fire protection services for the township's residents, businesses, and visitors. The consolidation enhanced coordination and resource sharing across the township.

As of this FMP, the Department operates the following four fire stations:

- Station 1 is located in Waubaushene.
- Station 2 is located in Old Fort.
- Station 4 is located in Port McNicoll.
- Station 5 is located in Victoria Harbour.

In 2017, Station 2 was reconstructed to include six truck bays and a 114,000-litre cistern for rural firefighting water storage. These updates demonstrate Tay Township's dedication to modernizing its fire service infrastructure.

3.0 Legislation and Standards

3.1 Overview

Legislation

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

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

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

Industry Standards

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

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

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

3.2 Legislative Compliance in Tay Township

Context

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

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

Findings

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

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

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

As noted in the table above, Tay Township and the Department are compliant with the stated requirements of the FPPA.

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

3.3 Community Risk Assessments

Context

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

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

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

Findings

Tay Township had a CRA completed in 2024. By completing this document, Tay Township is compliant with O. Reg. 378/18. The CRA also provides the Department with information that it can use to develop fire prevention initiatives aimed at enhancing community safety.

3.4 Accessibility for Ontarians with Disabilities Act

Context

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

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

Findings

As of this FMP, some of the older fire stations in Tay Township may not be AODA compliant.

3.5 Emergency Management

Context

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

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

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

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

Findings

Tay Township is continuously working to maintain an effective EMP that is compliant with O. Reg. 380/04. In addition, the Department's personnel are actively involved in Tay Township's current EMP.

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

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

Emergency Management Requirement	Findings
Appoint a primary CEMC and an alternate CEMC.	Yes
Establish an EOC and an alternate EOC	Yes
Establish an EMP committee.	Yes
Develop an emergency plan	Yes
Review the community's hazard identification and risk analysis annually (making updates as required).	Yes
Review the community's list of critical infrastructure annually (making updates as required).	Included in the 2024 CRA

3.6 NFPA Certification

Context

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

Findings

Tay Township is striving to ensure that all of its fire service personnel have obtained the applicable NFPA certifications or have received exemption from the OFM (through the exemption process).

For more information about the Department's NFPA certification levels, see section 10.3 of this FMP.

3.7 Roadmap for Improvement

Review of Community Risk Assessment

The Department should review the 2024 Tay Township Community Risk Assessment and then use the findings of that review to complement the information provided in this FMP.

AODA Compliance

Tay Township should ensure that its fire stations are audited to determine whether they comply with the AODA. The completed audit report should then be submitted to Council for review in order to ensure that the appropriate steps are taken to ensure the fire stations meet the necessary accessibility requirements.

3.8 Recommendations

Recommendations regarding legislation and standards in Tay Township are as follows:

3-1. Tay Township should ensure that its fire stations are audited in order to determine whether they are compliant with the Accessibility for Ontarians with Disabilities Act. The audit report should be sent to Council for consideration and approval, and then steps should be taken (as needed) to ensure the fire stations are compliant with applicable accessibility requirements.

4.0 Bylaws and Service Levels

4.1 Overview

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

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

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

4.2 Establishing and Regulating Bylaw

Context

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

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

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

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

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

Findings

As of this FMP, the E&R bylaw for Tay Township is Bylaw No. 2012-60. However, Tay Township has replaced schedules A and B of Bylaw No. 2012-60 with Bylaw No. 2018-38. Appendix A of Bylaw No. 2018-38 outlines the Department's list of approved services.

In recent years, the Province of Ontario has passed legislation that requires firefighters to obtain NFPA certifications in order to deliver specific firefighting services. The specific type of NFPA certification that a firefighter must obtain depends on the level of service they are expected to provide.

Tay Township's E&R bylaw specifies levels of service for the Department's operations. This information is useful, as it can help identify whether there are any training gaps in the Department. In addition, setting a level of service for the Department's operations allows the firefighters to focus on obtaining the NFPA certifications that are applicable to them. Once those certifications are obtained, the Department can focus on maintaining them in order to stay compliant with legislative requirements.

It is important to note that each time Council approves a change to the Department's structure or operations, it must update the E&R bylaw accordingly. For instance, some of the recommendations in this FMP suggest changes to the Department's services. If those recommendations are implemented, the E&R bylaw will need to be updated.

4.3 Core Services

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

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

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

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

It is vital for the fire department to become proficient at delivering its core services before it attempts to develop specialized services. In order to have an acceptable level of proficiency, a fire department should have appropriate documentation, training, and equipment in place across the organization. A fire department should only consider delivering specialized services after verifying that it has met those criteria.

4.3.1 Firefighting Services

Context

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

Other types of firefighting services are as follows:

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

Findings

Bylaw No. 2018-38 contains a list of the core services that Council has approved for the Department. These services include interior and exterior firefighting, as well as various fire prevention services (such as public education and code enforcement initiatives).

It is important to note that the Department may not be able to provide some of its core services safely and in a timely manner if it does not have enough personnel available to respond to an emergency call.

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

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

4.3.2 First Responder Medical Services

Context

Many fire departments provide medical services. Often, these services are examples of “first response services.”

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

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

Findings

According to Bylaw No. 2018-38, the Department is approved to provide tiered medical response services. These services are provided as part of the agreement between Simcoe County Paramedic Services and Tay Township.

4.3.3 Common Passenger Vehicle Rescue

Context

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

Findings

According to Bylaw No. 2018-38, the Department responds to vehicle accidents, including accidents that require extrication services.

Under the current response model, firefighters from two fire stations are dispatched when there is an emergency call regarding vehicle occupants requiring extrication. One of the responding stations will have basic automobile extrication tools, and the other station will have a fire apparatus with specialized automobile extrication tools.

4.4 Specialized Services

The following NFPA standards provide recommendations related to specialized services:

- NFPA 1006, *Standard for Technical Rescue Personnel Professional Qualifications*, outlines the minimum job performance requirements for technical rescue personnel.
    - As of July 1, 2028, fire departments delivering select specialized services will be required to train personnel to the relevant standards of NFPA 1006 (in accordance with O. Reg. 343/22).[3]

[3] For more information about the certification requirements of O. Reg. 343/22, see section 10.3 of this FMP.

- NFPA 1670 sets the operational guidelines for various search and rescue services, as well as the planning and training related to those services.
    - NFPA 1670 is included in the consolidated standard NFPA 2500, *Standard for Operations and Training for Technical Search and Rescue Incidents and Life Safety Rope and Equipment for Emergency Services*.

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

- **Awareness Level.** This level represents the minimum capability of organizations that respond to technical search and rescue incidents.
- **Operations Level.** This level represents the capability of organizations to respond to technical search and rescue incidents and to identify hazards, use equipment, and apply limited techniques specified in this standard to support and participate in technical search and rescue incidents.
- **Technician Level.** This level represents the capability of organizations to respond to technical search and rescue incidents and to identify hazards, use equipment, and apply advanced techniques specified in this standard necessary to coordinate, perform, and supervise technical search and rescue incidents.[4]

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

1. Identify the types of technical rescue incidents that are most likely to occur in the community.
2. Determine the appropriate level of operational capability (awareness, operations, or technician) by considering the following questions:
    - Does the fire department have enough firefighters to deliver specialized services?
    - How will offering specialized services impact firefighter safety?
    - Does the fire department have the equipment needed to deliver specific specialized services? If so, what is the condition of that equipment?
    - What initial level of training will the firefighters need to complete before they can provide specific services safely and effectively? Can the fire department provide that training to its firefighters?
    - What level of ongoing training will the firefighters need to complete to maintain the necessary knowledge and skill levels that specialized services require?

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

- 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?

3. Develop standard operating procedures and training programs that align with NFPA 1670 and procure appropriate equipment.

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

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

As noted in section 4.3, a municipality must ensure that its firefighters are proficient at delivering their core services before they attempt to deliver any specialized services. Although infrequent, calls that involve specialized services often place firefighter safety at a significantly higher risk than calls requiring the provision of core services.

Most specialized services are also costly to deliver, and many require firefighters to complete ongoing training to obtain applicable certifications.

4.4.1 Ice and Water Rescue

Context

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

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

If a fire department performs ice and water rescue services, it is advisable to ensure those services reference applicable NFPA standards.

Small Commercial Vessels

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

> [A commercial vessel is] a vessel that is not a pleasure craft or used for commercial fishing. […] Vessels of all types, including human-powered vessels and vessels that are owned by any level of government and government entities like fire and police departments, are commercial vessels unless used only for pleasure.
>
> A small commercial vessel is a vessel that is no larger than 15 gross tonnage and, if it is used to carry passengers, carries no more than 12 passengers.[5]

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

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

Standard Operating Guidelines

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

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

- What are the requirements and responsibilities of the boat's operator?
- What is the maximum number of staff and guests permitted on the boat?
- What are the standard practices for guests on the boat?
    - This component of the SOG should include instructions for identifying guests and ensuring that non-trained passengers know what to do if an emergency occurs on board the vessel (for liability purposes).
- How to use personal floatation devices correctly (including when to use seasonal life jackets or floater suits in cold weather conditions).

[5] https://tc.canada.ca/en/marine-transportation/marine-safety/introduction-7

- How to follow safety plans that address staff needs.
    - This component of the SOG should also outline a plan for ensuring a second boat is available if the primary boat fails.
- How to respond to emergency calls on and off the water.
- How to use the boat to transport non-fire department passengers.
- How to respond to vessel fires.
    - This component of the SOG should include instructions for how to fight fires from the boat.
- How to deal with fuel spills on the water.
- How to transport and operate PPE on the boat during rescues.
- How to work with EMS crews, including clarification on the role of EMS crews and what is permitted and not permitted on the boat.
- How to work with other fire departments while on the boat.
- How to trailer the boat.

Determining Types of Service

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

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

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

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

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

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

Findings

According to Bylaw No. 2018-38, the Department is approved to deliver the following ice and water rescue services:

- water and ice rescue – awareness level
- shore-based water and ice rescue – operations level
- water-entry water and ice rescue – technician level

Although the Department is permitted to deliver the services listed above, Bylaw No. 2018-38 does not specify the use of a boat for those services. However, the Department has an M2 boat (shown in Figure 3) that it keeps at Station 5 – Victoria Harbour.

Figure 3. M2 boat located at Station 5.

4.4.2 Rope Rescue and Confined Space

Context

Fire departments provide rope rescue and confined space rescue services to handle complex emergencies where specialized access is required.

Rope rescues involve using technical systems of ropes, pulleys, and harnesses to reach and evacuate individuals from high elevations or steep terrains. These types of rescue operations can include complex scenarios in areas where angles exceed 60 degrees (such as cliffs, high-rise structures, and confined vertical spaces). There are many risks associated with rope rescues, such as falls, equipment failures, and challenging environmental conditions. Due to these risks, teamwork and precise technical skills are essential to a successful rescue.

Confined space rescues involve the removal of individuals from enclosed or restricted areas (such as tanks, sewers, and utility vaults) where dangers like toxic atmospheres or restricted movement can pose serious risks.

In order to perform rope rescues and confined space rescues safely and efficiently, firefighters should receive specialized training that follows the standards of NFPA 1006 and NFPA 1670:

- NFPA 1006 outlines the qualifications for individuals performing rope rescues.
- NFPA 1670 outlines the standards for organizations that offer rope rescues.

In order to obtain certification for rope rescues, candidates must demonstrate proficiency in advanced rope systems, patient packaging, anchoring, and mechanical advantage systems. Typically, this demonstration follows the successful completion of a certified training program and practical evaluation.

After the initial training/demonstration is completed, ongoing training must be completed in order to maintain competency and ensure safety. This ongoing training is often mandated annually or biannually, and it includes scenario-based exercises, equipment inspection refreshers, and updates on evolving rescue techniques and NFPA standards.

Findings

According to Bylaw No. 2018-38, the Department is approved to deliver the following rope rescue services:

- rope rescue – awareness level
- rope rescue – operations level

4.5 Other Fire Protection Bylaws

Context

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

- open-air burning bylaws

- false alarm bylaws
- firework bylaws
- fire route bylaws

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

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

Findings

Table 4 lists the fire protection bylaws that Tay Township has in place as of this FMP.

Table 4. Current fire protection bylaws in Tay Township.

Bylaw Number	Description
Bylaw 2008-06	Mutual Aid Plan and Programs
Bylaw 2011-77	Fire Cost Recovery Agreement with Fire Marque
Bylaw 2013-15	Open-Air Fires – Regulations
Bylaw 2018-89	Fire Dispatch
Bylaw 2019-52	Firefighting Services for Simcoe County Forests
Bylaw 2020-15	Regulate the Parking of Vehicles
Bylaw 2024-36	Establish User Fees and Service Charges

4.6 Roadmap for Improvement

Reference NFPA Standards in the E&R Bylaw

Tay Township should continue to reference NFPA standards in its E&R bylaw (where applicable). The E&R bylaw should also specify which level of service (awareness, operations, or technician) the Department is expected to provide.

Demand Zone Guidelines (NFPA 1720)

The Department should monitor its response times and performance levels in order to compare them to the demand zone guidelines recommended in NFPA 1720. As part of this initiative, Council should be provided a report that recommends adopting the rural area demand zone guidelines that are outlined in NFPA 1720.

For more information about response standards, see section 11 of this FMP.

Hierarchy of Services

Tay Township should ensure that its fire service personnel are proficient at delivering their approved core services before they attempt to deliver specialized services. In order to solve the problem of balancing service quality with associated costs, Tay Township should consider a tiered approach to its fire protection services. As per this approach, Tay Township should only consider approving the delivery of specialized services after the Department has completed the training and established the proper documentation and equipment for its core services.

The Department's leadership personnel understand the concept of a hierarchy of services. These personnel have implemented strategies related to training, equipment, firefighter wellness, and asset management, and each of those strategies emphasizes the use of a hierarchy of services.

Core Firefighting Services

O. Reg. 343/22 references NFPA 1001 to describe interior and exterior structural firefighting services for Ontario firefighters. As such, Tay Township should consider referencing NFPA 1001 to describe the skills that its firefighters are expected to perform when providing these types of services.

Hazardous Materials Responses

According to Bylaw No. 2018-38, the Department is approved to deliver hazardous materials responses at the technician level. The Department also participates in the Simcoe County Hazardous Materials Team, which consists of personnel from various fire departments across Simcoe County.

As a best practice, the Department should continue to assess the capability and operational effectiveness of the Simcoe County Hazardous Materials Team (like it should for all fire department programs).

Marine Rescue Services

In regard to the Department's marine rescue services, the following actions should be taken:

- Council should continue to provide funding to support capital equipment purchases, including the purchase of larger, more stable water rescue vessels.
- For safety purposes, the Department's marine vessels should be equipped to handle the hazards associated with Georgian Bay and the smaller bodies of water in Tay Township. The Department must also consider the best way to provide services within its service area.

- The Department must ensure that all applicable personnel have the training, certifications, and skills to handle various marine conditions on both Georgian Bay and smaller bodies of water.
- The Department should consider the ways in which offering a greater number of marine rescue services will impact its need for resources.
- As provincial ice and water rescue training opportunities become more available, the Department should continue to have the members of its ice and water rescue team obtain the applicable NFPA 1006 certifications related to ice rescue, water rescue, and watercraft rescue services.
- The Department should ensure that all of its personnel who provide rescue services from a marine vessel are trained and certified to the standards that are outlined in NFPA 1006, Chapter 17 (which addresses surface water rescues).
    - In order to comply with O. Reg. 343/22, all personnel performing operations-level or technician-level surface water rescue services must be certified to the standard of NFPA 1006, Chapter 17, by July 1, 2028.
- The Department must ensure that its operations remain compliant with applicable Transport Canada regulations.
- Due to the risk of operating a marine vessel on a large body of water, the Fire Chief should ensure that the Department has access to a second vessel in case the primary vessel fails.
- The Fire Chief should audit the Department's marine vessels and water and ice rescue programs on a regular basis to verify that all equipment and services match the community's risks, needs, and circumstances. If any equipment or services require updates, the Fire Chief should submit applicable recommendations to Council for consideration and approval.
- The Department should continue developing its training and certification program. Doing so is essential, as there are many risks associated with marine operations. In order to be comprehensive, the program should include adequate training, competency assessments, and written instructions. Ultimately, the goal of the program should be to make sure that only qualified personnel are allowed to board and operate the Department's vessels.

In addition to the items listed above, Tay Township should also consider revising its E&R bylaw to specify which types and levels of service the Department is expected to provide when using its marine vessel.

Recommended Levels of Service for Specialized Services

Table 5 shows the recommended level of service that Council should approve for the Department in regard to the delivery of specialized services.

Table 5. Recommended levels of service for specialized services.

Type of Service	Relevant Standard	Level Listed in Bylaw No. 2018-36	Suggested Level of Service	Level of Service (Automatic Aid Partner)
Rope rescue	NFPA 1670	Operations	Operations	Technician
Structural collapse	NFPA 1670	Not declared	Awareness	Technician
Confined space rescue	NFPA 1670	Combined with farm and silo rescue – service level not specified	Awareness	Technician
Vehicle rescue	NFPA 1670	Service level not specified	Technician	N/A
Trench rescue	NFPA 1670	Not declared	Awareness	Technician
Machinery rescue	NFPA 1670	Not declared	Awareness	Technician
Surface water rescue	NFPA 1670	Technician	Technician	As backup team
Swiftwater rescue	NFPA 1670	Not declared	Awareness	N/A
Ice rescue	NFPA 1670	Technician	Technician	As backup team
Watercraft rescue	NFPA 1670	Not declared	Technician	Possible backup team
Tower rescue	NFPA 1670	Not declared	Awareness	Technician
Hazardous materials response	NFPA 472	Technician	Operations	Simcoe County and Barrie Fire and Emergency Services

Type of Service	Relevant Standard	Level Listed in Bylaw No. 2018-36	Suggested Level of Service	Level of Service (Automatic Aid Partner)
Grain rescue	N/A	Combined with farm and silo rescue – service level not specified	Awareness	Trained and proficient
Elevator rescue	TSSA	Service not currently provided	Trained and proficient	N/A

4.7 Recommendations

Recommendations regarding bylaws and service levels in Tay Township are as follows:

4-1. If there are any changes to the Tay Township Fire Department's level of service as a result of implementing recommendations from the 2025 Tay Township Fire Master Plan, the establishing and regulating bylaw for Tay Township should be revised accordingly.

4-2. Tay Township should consider referencing NFPA 1001 in its establishing and regulating bylaw to describe which skills the local firefighters are expected to have when providing interior and exterior structural firefighting services.

4-3. The Fire Chief should prepare a report that recommends updating Tay Township's establishing and regulating bylaw to adopt a demand zone standard (as per NFPA 1720) for residential structural firefighting. The report should then be presented to Council for consideration and approval.

4-4. Tay Township should consider revising its establishing and regulating bylaw to specify which levels of marine service (including the types and scope of services) have been approved for the Tay Township Fire Department.

4-5. The Fire Chief should consider preparing a report that recommends updating Tay Township's establishing and regulating bylaw to adopt the rescue services listed in Table 5 of the 2025 Tay Township Fire Master Plan. The report should then be presented to Council for consideration and approval.

5.0 Fire Service Agreements

5.1 Overview

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

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

5.2 Types of Fire Service Agreements

Context

Mutual Aid

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

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

Automatic Aid

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

Fire Protection Agreements

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

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

Findings

Table 6 summarizes the current fire service agreements that Council has approved for Tay Township.

Table 6. Current fire service agreements in Tay Township.

Type of Agreement	Year Established	Participating Partner	Scope of Agreement
Mutual aid plan and program	2008	County of Simcoe	County-wide mutual aid plan and program
Mutual aid plan and program	2008	District of Muskoka	District-wide mutual aid plan and program
Service agreement	2018	City of Barrie	Fire dispatch
Fire service agreement	2019	Simcoe County	Wildland firefighting agreement
Emergency response agreement	2020	Georgian Bay	Fire service agreement

5.3 Dispatch Services

Context

Fire departments have several options for their dispatch services. Common examples of dispatch services are as follows:

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

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

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

Findings

As of this FMP, the Department's dispatch services are provided by Barrie Fire and Emergency Services.

5.4 Roadmap for Improvement

Future Automatic Aid Agreements

Tay Township may want to consider establishing automatic aid agreements to improve service delivery, especially for infrequent but high-risk incidents.

As the demographics in Tay Township change over time, the Fire Chief should continue conducting needs analyses on a regular basis in order to examine and keep track of the following information:

- community needs
- the Department's level of service
- the Department's deployment models
- the Department's response statistics

Conducting needs analyses may help determine whether there are any services that Tay Township requires but the Department cannot provide (such as specialized services covered by NFPA 1006). If so, Tay Township may want to consider the benefits of developing cost-effective automatic aid agreements with a fire department that currently delivers the identified services.

5.5 Recommendations

There are no recommendations regarding fire service agreements in Tay Township.

6.0 Recruitment and Retention

6.1 Overview

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

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

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

6.2 Recruitment

Context

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

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

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

Findings

The Department uses various cost-effective methods to advertise its recruitment initiatives. For example, the Department uses Tay Township's electronic message boards to communicate information about recruitment drives.

6.3 Retention

Context

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

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

Table 7 lists some of the challenges associated with volunteer recruitment and retention.[6]

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

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

[6] The table is a direct excerpt from the article “Where Are They Going?”, written by Deputy Fire Chief Ian Shetler for the Association of Municipal Managers, Clerks, and Treasurers of Ontario.

Source of Problem	Contributing Factors
Change in the "Nature of the Business"	• Abuse of emergency services by the public • Less of an emphasis on social aspects of volunteering
Changes in Sociological Conditions (In Urban and Suburban Areas)	• Transience • Loss of community feeling • Loss of community pride • Less of an interest or time for volunteering • Two-income families • "Me" generation
Changes in Sociological Conditions (In Rural Areas)	• Employers less willing to allow response to calls • Time demands • "Me" generation
Leadership Problems	• Poor leadership and lack of coordination • Authoritative management style • Failure to manage change

Findings

Table 8 summarizes the years of service among fire service personnel in Tay Township.

Table 8. Years of service among fire service personnel in Tay Township.

Years of Service	Firefighters	Captains and District Fire Chiefs	Fire Chief, Deputy Chief, and Chief Training Officer
0 to 1.9	17	0	0
2 to 3.9	10	0	0
4 to 9.9	20	7	0
10 to 14.9	1	2	0
15 to 19.9	3	4	1
20 to 24.9	1	2	2
Total	**52**	**15**	**3**

As shown in the table above, a large number of the Department's personnel have been with the Department for less than four years. The Department's retention rates reflect this statistic, as almost 100 per cent of the Department's firefighters reach at least three years of service. However, the Department's retention levels are significantly lower for personnel who have served for seven years or more.

The housing situation in Tay Township is one factor that leads to turnover among the Department's volunteer firefighters. Specifically, there are not many "starter homes" available in the township, and volunteer firefighters looking to purchase a home are likely to leave the area to do so.

The Department's retention initiatives are supported by an annual budgetary contribution of $2,500. These funds are used for purchasing items related to firefighter activities. In years past, the Department has used the money to fund Christmas parties and other social events aimed at building camaraderie. At the Christmas dinners, the Department also recognizes personnel who have achieved a service milestone.

6.4 Roadmap for Improvement

Tay Township has expressed an interest in continuing to improve the Department's recruitment, retention, and attendance levels. In addition to providing financial incentives, Tay Township should consider the following suggestions:

- Tay Township should continue to promote a culture that encourages local firefighters to feel welcome and a strong sense of purpose as members of the fire service. Doing so can help the firefighters feel connected with their peers, and it may encourage them to spend time at the fire stations. Efforts to promote this culture should begin during a firefighter's recruitment period and then continue throughout their time as a volunteer.
- Tay Township should continue developing its wellness program by adding a fitness component that allows the Department's personnel to have annual assessments to help measure fitness goals.
- Tay Township should continue to assess whether burnout and stress are negatively impacting the Department's retention and attendance levels. In addition, the Department should continue providing education and training on the factors that expose firefighters to stress, as well as ways to manage burnout and stress levels in healthy ways.
- The Department should continue to provide a mentor to its recruits to help them understand topics such as departmental culture and maintaining a healthy work-life balance.
- Tay Township should consider providing an opportunity for local fire service personnel to receive extended health benefits, OMERS pensions, and the ability to apply for internal postings.

- Tay Township should consider providing a common area at each of its fire stations. The common areas should be clean, tidy, and welcoming spaces for volunteer personnel to congregate and engage with one another. If common areas are established, Tay Township should consider providing comfortable seating, large televisions, and other amenities that may encourage the firefighters to spend time at their fire stations.
- Tay Township should consider providing social opportunities for the partners and families of its volunteer fire service personnel. Doing so will allow these groups to engage with each other, which can help create a strong support system for the families of the firefighters.
- Tay Township should continue to invest in fitness areas in its fire stations. These areas should be large enough to hold various fitness equipment and accommodate multiple personnel simultaneously. Providing these spaces may improve retention and attendance levels, as some personnel value access to fitness equipment that is only available to members of the fire service.
- Tay Township should survey the Department's personnel to find additional ways to make them feel welcome, appreciated, and respected.
- Encourage the Department's personnel to spend time at their fire stations for informal social events and fitness time. Doing so can potentially improve responses, as the personnel may already be at their fire station when an emergency call is received.

6.5 Recommendations

Recommendations regarding recruitment and retention in Tay Township are as follows:

6-1. When it is time to recruit new fire service personnel, Tay Township should consider using multiple platforms to run the Tay Township Fire Department's recruitment campaign.

6-2. Tay Township should consider implementing the suggestions made in the "Roadmap for Improvement" found in section 6.4 of the 2025 Tay Township Fire Master Plan. Doing so may help improve recruitment, retention, attendance, and firefighter mental health for the Tay Township Fire Department.

7.0 Departmental Communications

7.1 Overview

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

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

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

7.2 Internal Communications

Context

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

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

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

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

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

Findings

During the FMP development process, engagement meetings were held with the Department's officers and firefighters. The consensus among these personnel is that the Fire Chief and the Deputy Chief do a good job of communicating ideas and plans with other staff members.

Overall, the consensus among the Department's staff members is that they feel engaged and have opportunities to be involved in decision-making processes.

7.3 External Communications

Context

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

Fire departments also communicate externally during emergency responses, during recruitment initiatives, and when delivering fire prevention and public education about fire safety.[7]

Findings

The Department's leadership personnel communicate to the public through the following channels:

- face-to-face conversations
- telephone conversations
- emails
- the Department's website

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

7.4 Roadmap for Improvement

Communication Initiatives

The Department should continue its current efforts to communicate with the public and its firefighters.

7.5 Recommendations

There are no recommendations regarding recruitment and retention in Tay Township.

8.0 Occupational Health and Safety

8.1 Overview

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

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

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

8.2 Firefighter Guidance Notes

Context

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

According to the website for the Firefighter Guidance Notes:

> [The] firefighter's guidance notes [are intended to] help fire service workers understand potential health and safety issues in their workplace. The notes also help employers identify hazards that are unique to fire services and determine how to prevent injury and illness to their workers.[8]

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

[8] Ontario Association of Fire Chiefs, "Firefighter Guidance Notes."

Findings

The Department's SOGs refer to the Firefighter Guidance Notes as applicable.

8.3 Cancer Prevention Checklist

Context

Cancer prevention is a vitally important topic for fire departments to understand.

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

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

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

The Firefighter Cancer Prevention Checklist also discusses the primary routes of exposure (such as inhalation and skin absorption), and it describes the steps that fire departments can take to minimize those risks. These actions cover topics like the proper use of respiratory protection, the cleaning of gear, and the implementation of hygiene protocols.[9]

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

Findings

The Department works diligently to implement measures that are designed to reduce exposure to carcinogens, such as:

- enhancing decontamination procedures for gear and equipment
- promoting the use of PPE for all stages of a fire response
- improving air quality management in the apparatus bays and living quarters at the fire stations
- investing in ongoing training and education to ensure that all personnel are aware of the current best practices for minimizing cancer risks

8.4 Personal Protective Equipment

Context

Firefighters use a variety of PPE to protect themselves from injury and death. This gear is referred to as a protective ensemble.

A firefighter's protective ensemble includes the following types of PPE:

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

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

Over the last few decades, health and safety agencies have conducted studies to find ways of reducing firefighter injuries and deaths. For example, WSIB Ontario has recognized that certain cancers are directly attributable to the toxic by-products of fires and hazardous materials, which can attach to the fabric of a firefighter's protective ensemble.

As a result of the health and safety studies, the fire service has revised many of the regulations it has issued for protective ensembles. There are now several legislative requirements that fire departments must follow in order to ensure their firefighters have protective ensembles that meet compliance standards.

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

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

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

Findings

The Department works with an approved and reputable PPE supplier to ensure that all of its firefighting personnel have protective ensembles that are properly sized and certified. Figure 4 shows various types of PPE currently used by the Department.

Figure 4. Firefighter protective ensembles kept at Station 5.

As of this FMP, the Department does not have bunker gear extraction equipment to clean its PPE. Currently, the gear is sent to a third-party agency for cleaning when needed. This arrangement seems to be the preferred method for both cleaning and inspecting firefighter protective ensembles.

8.5 Respirator Fit Testing

Context

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

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

Findings

As of this FMP, the Department completes fit testing for its SCBA face pieces and N95 masks using an approved procedure. Applicable testing is completed for recruits, and then every two years following this period. The respirator fit testing is conducted internally.

The Department also has a respiratory protection program that includes written documentation. Applicable procedures are completed by the Department's personnel.

8.6 Joint Health and Safety Committee

Context

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

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

Findings

A JHSC questionnaire was completed during the FMP development process. Based on the answers provided for the questionnaire (shown in Table 9), the JHSC in Tay Township is compliant with applicable legislation.

Table 9. 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 bylaws?	Yes
Is the JHSC conducting monthly inspections?	Yes
Is the JHSC holding quarterly meetings?	Yes
Does the JHSC post its health and safety minutes on a bulletin board?	Yes
Is the JHSC bulletin board up to date?	Yes
Is the JHSC documenting its actions?	Yes
Has the JHSC formalized a complaint process?	Yes

8.7 Diesel Exhaust Systems

Context

Firefighter Guidance Note #3-1, “Controlling exposure to diesel exhaust,” states:

> 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.

Guidance Note #3-1 also provides the following information:

> Employers must:
>
> - make sure the fire station is adequately ventilated by either natural or mechanical means so that the atmosphere does not endanger the health and safety of workers
> - take all measures reasonably necessary in the circumstances to protect workers from exposure to diesel exhaust components, including:
>   - substitution of the hazardous biological or chemical agent
>   - engineering controls
>   - administrative controls, including work practices
>   - hygiene facilities and practices
>   - where applicable, personal protective equipment

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

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

Findings

With the exception of the fire station in Port McNichol, each of the Department's fire stations uses an AirMation system, detection devices, and ventilation fans to manage diesel exhaust.

The Department is currently exploring options to install a similar system in the Port McNichol fire station in order to provide consistent protection across all of its facilities.

8.8 Health and Wellness

Context

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

Fire departments can support their firefighters through health and wellness programs that address topics such as:

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

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

The following three sections of NFPA 1550 are particularly important:

- Chapter 13 addresses the topics of health, fitness, and infection control.
- Chapter 14 states that fire departments must provide their members and their immediate families with access to a behavioural health program.
- Chapter 15 provides guidance regarding occupational exposure to potentially traumatic events.

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

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

- organizational culture
- psychological and social support
- clear leadership and expectations
- civility and respect
- psychological demands
- growth and development
- recognition and rewards

- involvement and influence
- workload management
- engagement
- balance
- psychological protection
- protection of physical safety

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

Findings

The following subsections detail the actions the Department takes to support the mental and physical health of its firefighters.

8.8.1 Mental Health

Context

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

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

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

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

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

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

Findings

As of this FMP, Tay Township has a mental health program for its firefighters. There are various components of this program, including PTSD prevention, Working Minds for Firefighters, and an employee assistance program (facilitated through Homewood Health).

The Department also has an in-house program that involves personnel from each of its fire stations, as well as a regional program that allows the firefighters to access support from a local mental health practitioner.

8.8.2 Physical Health

Context

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

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

Findings

All four of the Department's fire stations have exercise equipment. The quantity, style, and condition of the equipment vary from station to station.

8.9 Fireground Safety

8.9.1 Incident Command

Context

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

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

- A clearly established incident command system ("**ICS**") ensures that all personnel operate under a unified command, enabling coordinated decision-making and accountability.
- Fire crews must have the training and the ability to declare a mayday, which is a distress call indicating a firefighter is lost, trapped, or injured. In addition, the process for declaring a mayday situation must be universally understood, and procedures must be in place to ensure a rapid rescue.

- Effective radio communications are essential for maintaining situational awareness, relaying assignments, and transmitting urgent information.
- The presence of an incident safety officer ("**ISO**") can enhance safety by monitoring conditions, identifying hazards, and advising command personnel about proper risk management throughout the incident.

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

NFPA 1521 identifies the job requirements that incident safety officers should meet. (NFPA 1521 is consolidated in NFPA 1550, *Standard for Emergency Responder Health and Safety*.)

Findings

The Department has an SOG related to the ISO role, and it has personnel who are trained and certified to the standard of NFPA 1521.

8.9.2 Pre-Incident Planning

Context

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

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

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

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

- Develop a pre-incident planning program that compiles building information.

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

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

Findings

The Department's personnel complete pre-incident planning when they conduct inspections.

In addition, the Department's personnel attend properties and develop pre-incident plans as part of the Department's training schedule. After attending an incident, the personnel will gather pre-incident data and revise their pre-incident plans (as applicable).

8.10 Roadmap for Improvement

Cancer Screening

As discussed in this section of the FMP, firefighters are regularly exposed to carcinogenic substances through smoke, toxic gases, and contaminated gear. This exposure increases their risk of developing various forms of cancer.

Tay Township should consider enrolling its firefighters in a proactive voluntary cancer screening program to protect their long-term health and recognize the specific occupational risks they face. By offering regular screenings, Tay Township may be able to improve the chances of early detection, successful treatment, and recovery.

Physical Fitness

Firefighting is a physically demanding profession that requires strength, endurance, agility, and cardiovascular health to perform essential tasks safely and effectively under high-stress conditions. A comprehensive fitness program would support the health of Tay Township's firefighters while preparing them to meet the demands.

The proposed fitness program should provide the firefighters with access to regular physical assessments, personalized fitness plans, and ongoing wellness education. The program should also include appropriate facilities, equipment, and fitness trainers or wellness coordinators to promote participation and long-term health benefits.

In addition to improving operational performance and reducing the risk of injury, a formalized fitness program would contribute to the overall well-being and morale of the Department. Implementing the program would also demonstrate Tay Township's commitment to the health, safety, and readiness of its fire service personnel.

Fireground Safety

In order to enhance the safety of firefighters during emergency responses, it is essential for the Department to focus on the training and certification of senior staff and captains. By equipping these personnel with the skills needed to serve as ISOs, the Department can ensure effective safety management at large-scale, complex, or high-risk incidents.

The role of an ISO is vital in monitoring and enforcing safety practices on the fireground, especially when operations involve multiple hazards or last for extended periods. A qualified ISO can help identify potential risks and implement measures to mitigate them, which improves overall safety for all responding firefighters.

In addition, investing in the training of officers will strengthen the Department's command structure and establish a culture of operational accountability. This approach promotes proactive hazard identification and ensures that safety remains a priority throughout emergency responses.

Ultimately, a commitment to officer development contributes to a safer working environment, and it will enhance the Department's ability to manage emergencies effectively and professionally.

For more information about officer development, see section 10.2.3 of this FMP.

8.11 Recommendations

Recommendations regarding occupational health and safety in Tay Township are as follows:

8-1. Tay Township should consider including a proactive cancer screening program as part of the existing wellness program for its fire service personnel.

8-2. Tay Township should consider implementing a structured firefighter fitness program to support the health, safety, and operational readiness of its fire service personnel.

9.0 Fire Prevention and Public Education

9.1 Overview

Fires are extremely dangerous incidents that can lead to fatalities and severe property damage. According to the OFM, there were 53,339 structure fires in Ontario between 2017 and 2021. Those incidents caused 473 deaths, 3,598 civilian injuries, and nearly $4.5 billion in property loss.[10]

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

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

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

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

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

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

[10] OFM, 2022.

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

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

9.2 Community Demographics

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

- age distribution
- population density
- language diversity

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

Consider the following examples:

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

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

9.2.1 Population

9.2.2 Permanent Residents

According to the 2021 Statistics Canada census, Tay Township has a population of 11,091 year-round residents. This number is 10.5 per cent higher than the number of residents listed in the 2016 census.

9.2.3 Seasonal Residents and Tourists

Tay Township experiences an influx of residents during the summer. This increase is due to seasonal residents returning to their cottages (most of which are along the Georgian Bay waterfront) or trailer parks in the area.

9.2.4 Projected Growth

According to the 2022 Simcoe County Land Needs Assessment, the population in Tay Township is expected to increase by 0.07 per cent (for a total of 12,160 residents) by 2031.

A further population increase of 0.04 per cent (for a total of 13,130 residents) is expected by 2051.

9.2.5 Age Distribution

Table 10 compares the age distribution in Tay Township to the Province of Ontario (based on the findings of the 2021 Statistics Canada census).

Table 10. Age distribution in Tay Township and the Province of Ontario.

Age Range	Tay Township	Ontario
0 to 14 years	14.0%	15.8%
15 to 64 years	62.6%	65.6%
65 years and over	23.5%	18.5%
85 years and over	1.6%	2.4%

Based on the 2021 census data:

- The average age in Tay Township is 45.6 (compared to the provincial average of 41.8).
- The median age in Tay Township is 49.2 (compared to the provincial average of 41.6).

9.2.6 Language

According to the 2021 Statistics Canada census, Tay Township is a predominantly English-speaking community, with 94.1 per cent of residents identifying English as their first language.

Overall, 99.9 per cent of the residents in Tay Township can hold a conversation in English, and 5.7 per cent are bilingual in English and French.

9.2.7 Level of Education

Table 11 compares the highest level of education among Tay Township's residents to the provincial average (based on the findings of the 2021 Statistics Canada census).

Table 11. Education levels in Tay Township and the Province of Ontario.

Education Level	Tay Township	Ontario
No certificate	17.3%	15.3%
High school diploma or equivalency	33.1%	27.2%
Post-secondary certificate, diploma, or degree	49.9%	57.5%

9.2.8 Potential Fire Protection Concerns

Geographic Concerns

Some of Tay Township's geographic features and physical characteristics have the potential to impact the Department's operations or heighten specific fire safety risks. For instance, grass/wildland fires are a moderate threat due to the large number of forested areas in the community.

Going forward, the Department should review the geographic profile included in the 2024 Tay Township CRA. Doing so will provide the Department with additional information about the potential fire safety risks associated with the physical characteristics and layout of the community.

Seasonal Residents and Tourists

Tay Township experiences a large influx of seasonal residents during certain times of the year. An increase in population means that the Department may experience periods that have a very high number of calls for assistance, which has the potential to strain the Department's available resources.

Age of Population

The median age of the residents in Tay Township is higher than the provincial average. The concerns related to this statistic are as follows:

- Because Tay Township has an older population, the Department 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, 23.5 per cent of Tay Township's population is over the age of 65. The Department must keep this number in mind when developing fire prevention and public education programs. Some older residents do not use newer methods of communication (such as social media). If the Department only uses such methods to deliver public education, some residents may not receive important messages.

9.3 Public Education Initiatives

Context

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

Common ways of providing public education are as follows:

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

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

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

Findings

During the COVID-19 pandemic, health restrictions limited the Department's ability to deliver traditional public education. However, following the pandemic, the Department has resumed its public education activities.

Some of the Department's public education initiatives are as follows:

- Post on social media.

- Send direct mail in the form of water bills, tax bills (inserts), annual reports, and newsletters.
- Attend youth group workshops.
- Post messages on Tay Township's official website.
- Set up a home show booth.
- Maintain six digital sign boards (one for each local community).
- Conduct school visits (for students in kindergarten to grade 3), as well as other education initiatives upon request.
- Participate in events during Fire Prevention Week (such as Home Depot public education events and McDonald's visits in collaboration with the Midland Fire Department).
- Deliver presentations to various community groups and facilities (such as Lions, seniors' groups, and daycare facilities).
- Attend local festivals, including two large annual events and several smaller events.
- Conduct visits at summer day camps.
- Conduct fire hall tours (for schools, daycare facilities, and home-schooled students).
- Assign an individual to the role of "communication person" in order to ensure fire safety and emergency preparedness messages are posted consistently.

Although the Department conducts a variety of public education initiatives (as listed above), a formalized public education policy has not yet been developed.

9.4 Smoke Alarm/Carbon Monoxide Alarm Program

Context

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

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

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

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

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

Findings

The Department has a smoke alarm program that involves proactively engaging with the community. For instance, when the Department's personnel respond to an emergency call, the firefighters engage the residents at the incident site and inspect the existing alarms. The smoke alarm program has also allowed the Department to answer questions from residents.

As of early 2025, the Department's firefighters have visited 600 residents of Tay Township. The Department's goal is to visit every local residence over the next few years.

9.5 Code Enforcement

Context

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

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

Findings

In Tay Township, the Deputy Chief is responsible for handling OFC enforcement duties. These duties include issuing formal inspection orders, as well as other charges under the FPPA.

9.6 Fire Inspections

9.6.1 Request and Complaint Inspections

Context

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

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

A fire department will conduct a complaint inspection when it receives notice of a fire code violation.

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

O. Reg. 365/13 states:

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

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

Findings

The Department completes inspections upon request and complaint as needed.

9.6.2 Vulnerable Occupancy Inspections

Context

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

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

According to O. Reg. 364/13:

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

Findings

As of this FMP, there are seven sites in Tay Township that meet the definition of a vulnerable occupancy.

The Department ensures that the seven vulnerable occupancies in the community maintain their legislative requirements. The Department verifies this compliance by conducting annual inspections and witnessing fire drills at those sites.

9.6.3 Fire Inspection Statistics

Context

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

- Tracking inspections is a requirement of the FPPA.
- The information may help a fire department develop strategic plans to address operational needs (such as staffing levels).

- The information may identify occupancies where additional inspections are required.
- The information can help a fire department develop a fire prevention campaign that focuses on areas in the community that have a number of complaints and violations.
- Tracking inspections creates a paper trail, which can help protect building owners, as well as a municipality and its fire department, from potential liability issues.

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

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

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

Findings

Table 12 summarizes the reasons for inspections conducted by the Department from 2020 to 2024.

Table 12. Inspection reasons, 2020 to 2024.

Type of Inspection	2020	2021	2022	2023	2024	Total
Complaint	12	1	1	4	8	26
Owner request	4	4	14	7	10	39
Sale request	2	5	10	8	7	32
Routine	12	9	8	14	12	55
Licensing	0	0	0	0	0	0
Other inspections, smoke alarms, safety concerns	0	0	0	0	0	0
Total	**30**	**19**	**33**	**33**	**37**	**152**

Table 13 summarizes the number of violations that were identified by the Department from 2020 to 2024. The table also indicates how many notices the Department issued during that period.

Table 13. Violations noted and notices issued, 2020 to 2024.

Type of Violation/Notice	2020	2021	2022	2023	2024	Total
Verbal	1	0	0	0	0	1
Letter	0	0	0	0	0	0
Electrical safety authority	0	1	0	1	0	2
Intermediate threat to life	0	0	0	0	0	0
Order	6	3	1	2	3	15
Total	**7**	**4**	**1**	**3**	**3**	**18**

9.6.4 Fire Inspection Frequency

Context

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

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

Findings

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

The Department also inspects multi-unit and assembly occupancies, and vulnerable occupancies are inspected as per the legislated frequency.

9.7 Fire Investigations

Context

According to 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 is accidental, information from the inquiry reinforces the need to increase fire prevention and public education initiatives. However, if the cause of a fire is suspicious, further investigations and actions are required. For instance, fire departments must notify the OFM and the local police about all suspicious fires.

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

- The investigating firefighters suspect the fire or explosion is incendiary (criminal). Incendiary fires may include dumpster fires, car fires, and wildland fires. All incendiary fires/explosions must be reported to the applicable police authority.
- A fire or explosion results in either a fatality or serious injury that requires a person to be hospitalized as an inpatient. In such instances, the fire department must make every reasonable effort to confirm the status of injured persons transported to the nearest hospital before releasing the fire scene.
- A fire or explosion results in significant loss for the community.[11]
- 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).

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

- A fire or explosion involves clandestine drug operations or marijuana growing operations.
- A fire or explosion occurs in a multi-unit residential occupancy, and the impact of the fire's spread or the explosion extends beyond the unit of origin.
- A fire or explosion occurred in a multi-unit residential occupancy, and the fire department suspects that OFC violations have impacted the event.
- A fire or explosion occurs in a vulnerable occupancy.

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

Findings

In Tay Township, the Fire Chief conducts fire investigations for the Department. If the Fire Chief is absent, the Deputy Chief or the Chief Training Officer will conduct any required fire investigations.

The Deputy Chief also completes most of the Department's inspections and code enforcement initiatives. However, due to the many other duties assigned to the Deputy Chief role, time management for inspections and enforcement is limited.

9.8 Roadmap for Improvement

Public Education

In the coming years, a structured data collection and tracking system will be essential for ensuring that the fire safety programs in Tay Township benefit from evidence-based planning and continuous improvement.

For example, the Department should track smoke and CO alarm statistics in order to measure compliance levels. The current gap in data collection efforts has limited the Department's ability to evaluate the overall effectiveness of its recent public education and prevention initiatives. The absence of consistent metrics also restricts the Department's ability to identify trends, assess community risks, or demonstrate the impact of its smoke and CO alarm awareness efforts to stakeholders.

The Department should also continue to expand its community engagement and outreach efforts to promote fire safety awareness. Specifically, the Department should try to strengthen its partnerships with local organizations, agricultural employers, housing providers, and schools. School programs, open houses, and targeted messaging campaigns for vulnerable populations are all worth considering as part of these outreach efforts.

Finally, the Department should evaluate historical incident data (for both Tay Township and Ontario) and current OFM public education initiatives in order to develop a cost-effective public education policy.

The public education policy should be designed to meet community needs and align with NFPA 1035, and it should include the following components:

- smoke/CO alarm program
- emergency management program
- other public education initiatives

The Fire Chief should submit the proposed public education policy to Council for consideration and approval.

Fire Inspections

The Department should explore the possibility of using its senior suppression staff members and officers to help conduct inspections and complete pre-incident planning. Leveraging the experience of these personnel can significantly enhance the Department's fire prevention efforts by increasing its operational capacity and improving the accuracy and relevance of its pre-incident plans.

Many of the Department's officers have first-hand knowledge of local risks, building layouts, and operational challenges. These insights make them well-suited to identifying fire hazards, ensuring code compliance, and developing effective response strategies. Moreover, including suppression staff in these activities will promote greater integration between the Department's fire prevention and emergency response functions. This integration can lead to improved situational awareness and coordinated action during emergencies. Overall, the Department can use this initiative to strengthen its overall fire safety strategy while maximizing the use of its internal resources.

Smoke Alarm Program

Aligning a smoke/CO alarm program with Tay Township's current needs will improve the Department's ability to educate residents on their legal responsibilities. The program can also promote a culture of safety and compliance.

In addition, the program can be tailored to address the specific community demographics in Tay Township. This approach will allow the campaign to be targeted to reach those most at risk. Moreover, basing the program on the Department's response times and available resources ensures all initiatives remain realistic and effective, capable of prioritizing areas where early detection and evacuation are most critical.

Overall, a smoke/CO alarm program can help reduce preventable injuries and deaths while strengthening public trust and engagement with fire safety initiatives.

9.9 Recommendations

Recommendations regarding fire prevention and public education in Tay Township are as follows:

9-1. The Tay Township Fire Department should develop a cost-effective public education policy that addresses community needs and aligns with NFPA 1035. The policy should include a smoke/CO alarm program, an emergency management program, and other public education initiatives. The Fire Chief should submit the policy to Council for consideration and approval.

9-2. The Tay Township Fire Department should formalize the use of technology that is used for the collection and management of pre-incident planning data.

9-3. The Tay Township Fire Department should continue to develop a smoke alarm/carbon monoxide alarm campaign that is based on OFM guidance, past incident data, and community demographics. The scope of the campaign should also be based on the fire department's response times and available resources.

10.0 Training and Certifications

10.1 Overview

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

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

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

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

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

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

10.2 Training Structure

Context

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

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

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

Findings

The Department's leadership team recognizes the challenges associated with delivering training to volunteer firefighters.

As of this FMP, the Department has a training program that includes the following components:

- recruit training
- ongoing training (including NFPA-related training)
- officer development training

The Chief Training Officer is responsible for developing and organizing the Department's training program.

10.2.1 Recruit Training

Context

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

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

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

Findings

The Department's recruit training program includes the following components:

- NFPA 1001 certification training
- NFPA 1072 certification training
- mental health training
- standard first aid certification
- driver training
- carbon monoxide incident training
- traffic control training
- note-taking training
- training for non-fire-related incidents

The Chief Training Officer develops and leads the training program for the Department's recruits. The program is delivered by the Department's captains and its training instructors.

10.2.2 Ongoing Training

Context

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

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

Overall, a well-structured training program will help ensure firefighters remain skilled, confident, and ready to respond to a wide range of emergencies.

Ongoing training is especially important for small or rural fire departments that may not receive a high volume of emergency calls. The training will help the personnel in these departments maintain their operational readiness even when there are fewer emergency responses to complete.

Findings

The Department delivers approximately 60 hours of in-service training every year. Each training session covers different topics, including topics related to NFPA certification. This training is usually delivered during regularly scheduled training evenings.

Under the direction of the Fire Chief, the Chief Training Officer develops strategic training plans. The Chief Training Officer also delivers the majority of the Department's in-station training with some assistance from the Department's captains. The Department has also partnered with a private training facility.

The Department also delivers specialty training courses. These courses are offered in-house and through the Ontario Fire College.

10.2.3 Officer Development Program

Context

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

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

> The OHSA gives employers and workers duties that help support the role of the supervisor. When appointing a supervisor, the employer must ensure the person is competent.
>
> To be competent, a supervisor must have enough knowledge, training, and experience to organize the work and how it is to be performed. He or she must also be familiar with the OHSA and any regulations under it that apply to the workplace and know about any actual or potential health and safety hazards in the workplace.[12]

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

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

Findings

As of this FMP, the Department's captains are provided with the training that is needed for NFPA 1021, level I certification. The Department is also researching training programs to find a suitable officer development program for its captains. The intent is to deliver a program that includes leadership development and mentoring training.

10.3 NFPA 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 have the minimum level of certification for all services they perform. This stipulation is to ensure that firefighters receive consistent, ongoing training that matches the level of service set by their municipal council. The stipulation is also in place to help protect firefighter safety.

[12] Ontario.ca, "Supervisors under the Occupational Health and Safety Act."

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

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

- NFPA 1001 identifies the minimum job performance requirements for career and volunteer firefighters whose duties are primarily structural in nature. (NFPA 1001 is consolidated in NFPA 1010, *Standard on Professional Qualifications for Firefighters*.)
- NFPA 1002 identifies the requirements that firefighters must meet before driving to emergency sites, as well as requirements for the regular maintenance and repair of fire apparatus. (NFPA 1002 is consolidated in NFPA 1010, *Standard on Professional Qualifications for Firefighters*.)
- NFPA 1072 identifies the minimum job performance requirements for firefighters operating at the scene of a hazardous materials incident or weapons of mass destruction incident. (NFPA 1072 is consolidated in NFPA 470, *Hazardous Materials/Weapons of Mass Destruction (WMD) Standard for Responders*.)
- NFPA 1006, *Standard for Technical Rescue Personnel Professional Qualifications*, identifies the minimum job performance requirements for firefighters delivering specialized rescue services.
- NFPA 1033, *Standard for Professional Qualifications for Fire Investigators*, specifies the job performance requirements that fire investigators must meet.
- NFPA 1031 specifies the job requirements, knowledge levels, and skill levels that fire inspectors must meet. (NFPA 1031 is consolidated in NFPA 1030, *Standard for Professional Qualifications for Fire Prevention Program Positions*.)
- NFPA 1035 specifies the standard that contains guidelines for fire and life safety educators. (NFPA 1035 is consolidated in NFPA 1030, *Standard for Professional Qualifications for Fire Prevention Program Positions*.)

- NFPA 1021 identifies the minimum job performance requirements that fire officers should meet. (NFPA 1021 is consolidated in NFPA 1020, *Standard for Fire and Emergency Instructor, Fire Officer, and Emergency Medical Services Officer Professional Qualifications.*) As of July 1, 2026, the following level of certification becomes mandatory for the listed positions:
  - NFPA 1021, Fire Officer I: The fire officer at the supervisory level.
  - NFPA 1021, Fire Officer II: The fire officer at the supervisory/managerial level.
  - NFPA 1021, Fire Officer III: The fire officer at the managerial/administrative level.
  - NFPA 1021, Fire Officer IV: The fire officer at the administrative level.
- NFPA 1041 identifies the job requirements that fire service instructors who participate in training should meet. (NFPA 1041 is consolidated in NFPA 1020, *Standard for Fire and Emergency Instructor, Fire Officer, and Emergency Medical Services Officer Professional Qualifications.*)
- NFPA 1521 identifies the job requirements that health and safety officers and incident safety officers should meet. (NFPA 1521 is consolidated in NFPA 1550, *Standard for Emergency Responder Health and Safety*.)

Until recently, a provincial program allowed firefighters to meet their certification requirements without completing the necessary NFPA training. Firefighters could attempt to have their training grandfathered. This process allowed fire departments to submit lists indicating which personnel should qualify as NFPA-certified based on their years of experience and ongoing training.

The Ontario government gave two opportunities to complete the grandfathering process. The final deadline was December 31, 2018. Fire departments must retain the appropriate documentation to prove their firefighters had their training grandfathered. Fire departments must also retain appropriate training records as proof that they meet applicable requirements.

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

Findings

Table 14 summarizes the training and certification levels in the Department related to several NFPA standards.

Table 15 summarizes training and certification levels related to NFPA 1006.

Tables 14 and 15 both show the following information:

- how many personnel should complete each course and become certified[13]
- how many personnel have completed each course, or who are currently enrolled, waiting to write the certification exam, or waiting to receive exam results
- how many personnel have a grandfathered training status or other exemption
- the percentage of eligible personnel who are certified, in the process of becoming certified, or have had their training status grandfathered for the certification

In addition, Table 15 lists the specific level of service that the Department offers for each service, as well as the specific personnel who must be certified. Firefighters obtain their NFPA certifications once they pass the OFM proctored testing process.

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

Table 14. Select NFPA certification levels, Tay Township Fire Department.

NFPA Standard	Applicable Personnel	Completed or Pending	Grandfathered	Percentage Completed or Pending
NFPA 1001: Fire Fighter I	60	54	5	98%
NFPA 1001: Fire Fighter II	60	54	5	98%
NFPA 1002: Fire Apparatus Driver/Operator	60	41	0	68%
NFPA 1035, Fire and Life Safety Educator I	3	1	1	67%
NFPA 1072: Hazardous Materials Response (operations level)	60	54	5	98%
NFPA 1021: Fire Officer I	17	12	1	76%
NFPA 1041: Fire Services Instructor I	3	3	0	100%
NFPA 1041: Fire Services Instructor II	3	3	0	100%
NFPA 1021: Fire Officer II	7	7	0	100%
NFPA 1021: Fire Officer III & IV	2	2	0	100%
NFPA 1031: Fire Inspector I	2	2	0	100%
NFPA 1031: Fire Inspector II	1	1	0	100%
NFPA 1033: Fire Investigator	2	0	0	0%
NFPA 1521: Incident Safety Officer	19	17	0	89%

Table 15. NFPA 1006 certification levels, Tay Township Fire Department.

NFPA 1006 Standard	Personnel	Level	Applicable Personnel	Completed or Pending	Percentage Completed or Pending
Chapter 5: Rope Rescue	Captains and firefighters	Operations	20	14	70%
Chapter 17: Surface Water Rescue	Captains and firefighters	Awareness	60	51	85%
Chapter 17: Surface Water Rescue	Specialized team	Technician	20	0	0%
Chapter 20: Ice Rescue	Captains and firefighters	Awareness	60	51	85%
Chapter 20: Ice Rescue	Specialized team	Technician	20	8	40%

Notes

Ice and Surface Water Rescue

As of this FMP, the Department's personnel who perform ice rescues and surface water rescues have previous ice rescue and water rescue training. These personnel are currently waiting for courses to become available in order to become certified in both ice water search and rescue and surface water search and rescue to the NFPA 1006 standard.

10.4 Other Training

Context

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

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

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

Findings

The Department's personnel complete several courses beyond those required for NFPA certification.

Table 16 lists the additional courses, licences, and certifications that are applicable to the Department, summarizing the following information:

- how many personnel should complete the training or licensing/certification process
- how many personnel have completed the training or licensing/certification process, or who are currently enrolled, waiting to write an exam, or waiting to receive exam results
- the percentage of eligible personnel who have completed the training or certification process

Table 16. Other training and licensing data.

Type of Training or Certification	Applicable Personnel	Completed or Pending	% Completed or Pending
Legislation 101	2	2	100%
First Aid CPR: Health Care Provider Level	69	66	95%
Mental Health Training	69	66	95%
DZ Licence	69	49	71%
Pleasure Craft Operator Card	20	20	100%
Small Domestic Vessel (Basic Safety)	20	14	70%

The Department's personnel have completed watercraft rescue training, which was facilitated through a private firefighter training facility.

10.4.1 Provincial and Municipal Training

Context

In addition to recruit training and in-service training, all firefighters must complete applicable provincial and municipal training. The Province of Ontario requires fire departments to provide their employees with training on the following topics:

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

Findings

The Department uses a combination of in-person and online training modules to deliver WHMIS, AODA, and workplace harassment training to its personnel.

10.4.2 Driver Training and Licensing

Context

It is critically important for fire departments to understand the current certification and regulatory requirements associated with driver training and licensing.

An individual should only operate a large vehicle (such as a fire apparatus) after completing specialized training and obtaining either a DZ or AZ licence. If a fire department allows an unqualified or untrained firefighter to operate a fire apparatus, it puts the safety of the driver and others at risk.

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

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

Findings

The Department’s firefighters receive 40 hours of driver training. This training includes practical driver training (20 hours), a DZ licence familiarization course (16 hours), and an in-class driver response training course (four hours).

In addition, the Department conducts in-service truck “rodeo” training every two years and delivers driving theory training during its monthly in-service training sessions.

10.4.3 Post-Incident Analysis and Review

Context

Fire departments may conduct a post-incident analysis and review (“**PIAR**”) following an emergency response. In some cases, an after-action review will also be conducted. Each of these reviews is a type of structured evaluation that is used to assess the actions that were taken during an incident.

The purpose of a post-incident evaluation is to identify successes and areas for improvement. This information can then be used to enhance the effectiveness of future emergency responses.

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

- Reinforce training
- Improve response strategies

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

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

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

Findings

The Department conducts a PIAR following any major or unusual emergency response. This initiative is part of the Department's ongoing commitment to continuous improvement and operational excellence.

During the PIAR process, the Department reviews the following topics:

- command decisions
- communication
- resource deployment
- safety practices
- overall response coordination

By reviewing these factors, the Department is able to learn valuable lessons that can inform its future training, planning, and operational procedures.

10.5 Roadmap for Improvement

Tiered Training and Certification Model

As noted in section 4.3 of this FMP, the Department should ensure that its personnel can deliver their approved core services before they attempt to deliver specialized services. In order to ensure the proper progression from core services to specialized services, the Department should consider adopting a tiered training system.

Figure 5 illustrates a potential tiered training and certification model that prioritizes training for core services.

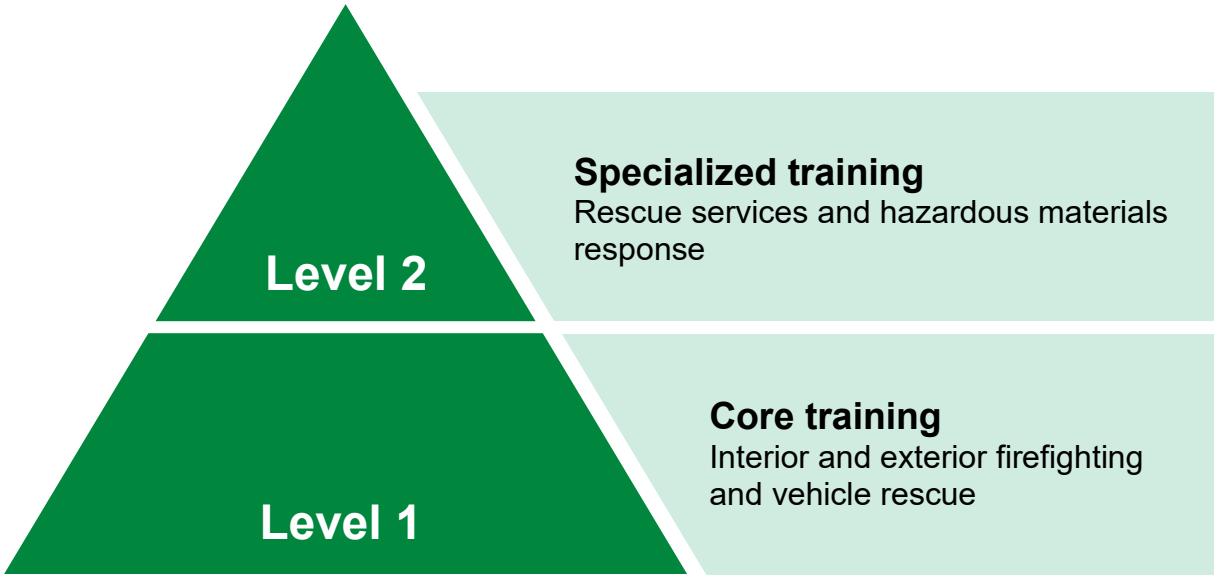

Figure 5. Tiered training and certification model.

Officer Development

The Fire Chief should continue to improve the Department's officer development program. In addition to NFPA 1021 certification (which is mandatory), the Department should consider incorporating additional knowledge and skills into the competencies that are required at each rank within the organization. These additional topics should be aligned with the Department's strategic goals.

Emphasizing scenario-based learning helps to build decision-making skills, as well as communication skills and situational awareness. This type of learning is especially useful when it involves complex incident command simulations and multi-agency scenarios.

As a way to reinforce applicability and knowledge retention, the training scenarios should be based on local pre-incident plans, after-action reviews, and seasonal hazards.

Single-Point-of-Failure Scenario

The Chief Training Officer currently delivers most of the Department's training. One benefit of this approach is that it ensures the training program has a uniform message. However, this arrangement also has the potential to cause a single-point-of-failure scenario, as the Department is relying on one individual to manage the entire program. If the Chief Training Officer becomes unavailable for any reason (such as illness, extended leave, retirement, or reassignment), the Department may not be able to offer consistent training.

In order to avoid a single-point-of-failure scenario, the Department should train additional personnel to deliver training, such as senior firefighters, captains, or subject matter specialists. Although this process will require devoting more time and resources to the training program in the short term, it will result in a training program that has greater flexibility, sustainability, and overall effectiveness in the long term. In addition, the training program will be able to incorporate more diversity and teaching styles, which may enhance the learning process for the participants.

By distributing the workload associated with the training program, the Department can also reduce the likelihood that the Chief Training Officer will experience burnout. In addition, by taking a collaborative approach to managing the training program, the Department can support its leadership development and succession planning initiatives. A collaborative training program can also encourage personnel to feel a shared responsibility for maintaining high operational standards across the Department.

NFPA 1006 Training and Certification

The Department provides various services covered by NFPA 1006 (including rope rescues, surface water rescues, and ice water rescues). Currently, it has been challenging for the Department to access training courses related to the technical rescue services covered by NFPA 1006, especially the training needed to certify personnel to the technician level. However, the Province of Ontario is currently working to develop (or expand) programs and certifications related to NFPA 1006. Going forward, the Department should continue to ensure that its obtain the applicable NFPA 1006 certifications (as mandated by O. Reg. 343/22).

Tay Township may determine that the cost and commitment required to obtain NFPA 1006 certifications would put an undue burden on the community and its firefighters. If so, Tay Township could also choose to reduce the Department's current level of service and contract another organization to provide technical rescue services with certification requirements.

The Department also provides the following services that covered by NFPA 1006 but not mentioned in O. Reg. 343/22:

- watercraft rescue
- common passenger vehicle rescue
- heavy vehicle rescue
- rescue services delivered at the awareness level

Although the services listed above may not require the Department to obtain NFPA certifications, the Department should continue to train its personnel to the applicable NFPA 1006 standard. Doing so will help the Department improve its performance levels while enhancing firefighter safety and complying with provincial occupational health and safety legislation.

Additional Practical Training

The Fire Chief should direct the Chief Training Officer to explore ways of incorporating more hands-on practical training for specific topics. Although theoretical knowledge is essential, many core firefighting tasks (such as forcible entry, ladder operations, hose handling, and patient extrication) require muscle memory, coordination, and physical conditioning that can only be developed through repeated, practical application.

The addition of more hands-on training can help the Department's personnel strengthen their psychomotor skills and ensure that they are fully prepared for the physical demands of emergency responses. Practical training can also improve confidence levels and reinforce safety practices.

Overall, firefighters who have the chance to apply concepts in realistic training scenarios are better equipped to perform critical tasks under pressure.

10.6 Recommendations

Recommendations regarding the training and certifications in Tay Township are as follows:

10-1. The Fire Chief should investigate whether it is feasible to offer more "hands-on" training in order to provide firefighters with the opportunity to develop their psychomotor skills.

10-2. In order to comply with O. Reg. 343/22, the Tay Township Fire Department should continue to ensure that its personnel who perform applicable technical rescues are certified to the appropriate standard of NFPA 1006.

10-3. In order to enhance performance, improve firefighter safety, and maintain compliance with provincial occupational health and safety requirements, the Tay Township Fire Department should continue training its personnel to applicable NFPA 1006 standards for services that are not prescribed in O. Reg. 343/22.

10-4. The Fire Chief should continue to improve the scope of the practical training that is delivered to the officers of the Tay Township Fire Department. Specifically, more scenario-based training initiatives should be offered, such as incident command practices.

11.0 Response

11.1 Overview

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

It is also vital to have a quick response time when a medical emergency occurs. Recent research has shown that response times and mortality are correlated.[14] For example, when a patient is experiencing a heart attack, their survivability decreases at a rate of 10 per cent/minute.[15] The outcomes of many other medical emergencies also depend on fast response times.[16]

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

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

In general, performance standards establish how many firefighters should respond to an emergency and how long it should take for them to arrive at an incident site. A fire department can assign response duties based on those considerations. In all cases, it is essential for a fire department to respond to emergencies with an adequate number of personnel and resources to deliver effective fire protection and suppression services. By setting performance standards, a fire department can ensure that it is achieving fast, consistent response times while dispatching a fire crew with enough personnel to complete all critical tasks in a timely manner.

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

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

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

11.2 Effective Response Force

11.2.1 Response Baselines and NFPA Standards

Context

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 in order to measure their performance levels. This process involves determining a fire department's effective response force.

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

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

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

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

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

Finally, it is important to make sure that all decisions adhere to applicable legislation and guidelines, such as:

- the FPPA
- the OHSA
- NFPA standards

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

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

- NFPA 1225, *Standard for Emergency Services Communications*
- NFPA 1720, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments*[17]

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

Table 17 shows the staffing levels and response time standards that NFPA 1720 provides for urban, suburban, rural, and remote area demand zones.[18] 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.

Table 17 also includes a metric for measuring fire department effectiveness. (The metric lists how many personnel should respond to an incident within an expected time.) For example, if an incident occurs in an urban area demand zone, a fire department should dispatch at least 15 personnel to the emergency site. If the fire department can dispatch those 15 personnel within nine minutes at least 90 per cent of the time, that fire department is considered effective.

[17] NFPA 1710 and 1720 are scheduled to be consolidated into NFPA 1750 by 2025.

[18] This table is adapted directly from section 4.3.2 of NFPA 1720.

Table 17. Staffing and response time standards as per NFPA 1720.

Demand Zone[19]	Demographics	Minimum Staff to Respond[20]	Response Time[21] (minutes)	Meets Objective (%)
Urban area	> 1,000 people/mi^2 (2.6 km^2)	15	9	90
Suburban area	500 to 1,000 people/mi^2 (2.6 km^2)	10	10	80
Rural area	< 500 people/mi^2 (2.6 km^2)	6	14	80
Remote area	Travel distance ≥ 8 mi (12.87 km)	4	Directly dependent on travel distance	90
Special risks	Determined by AHJ	Determined by AHJ based on risk	Determined by AHJ	90

Findings

According to the 2021 Statistics Canada census, Tay Township has a population density of 80.5 people per sq. km (or 209.3 people per sq. mi.). Based on this statistic, Tay Township should consider using the guidelines that NFPA 1720 provides for a rural area demand zone when it is assessing the effectiveness of the fire services provided for structure fires that occur in the community.

11.2.2 Critical Tasks

Context

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

[19] A jurisdiction can have more than one demand zone.

[20] Minimum staffing includes members responding from the AHJ's department and automatic aid.

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

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

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

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

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

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

Various fire service authorities have developed general guidelines about resource deployment. Table 18 presents a critical tasks analysis for a fire in a single-family home (based on best practices and findings from the NFPA, OFM, and the National Institute of Standards and Technology).

Table 18. 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**

Findings

The Department has developed several SOGs related to incident command. These documents ensure that the Department has a structured, consistent, and disciplined approach to managing emergency scenes. The Department also ensures that its SOGs align with industry best practices related to emergency scene management.

The Department's SOGs define the roles and responsibilities of personnel during incidents, and there is a strong emphasis on completing critical tasks during dollar loss fires, such as:

- establishing command
- conducting size-ups
- securing a water supply
- performing primary searches, ventilation, and exposure protection

By following incident command protocols and prioritizing the essential operations listed above, the Department aims to minimize property damage, enhance firefighter safety, and improve the effectiveness of its responses. Overall, the Department's SOGs demonstrate its professionalism and commitment to safe and effective emergency operations. The documents also promote accountability and support effective coordination between crews.

11.2.3 Response Statistics

Context

Reviewing historical performance levels can help a fire department identify its service delivery capabilities.

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

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

Table 19 defines the four steps that are involved in dispatching a response to an emergency call.

Table 19. Summary of response time intervals.

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

By timing how long it takes to complete each of the four steps defined above, a fire department can determine the average response time of its first due unit (which is the first vehicle to arrive at the emergency scene). However, in order for historical data to be useful, fire departments must track their response times consistently across all types of responses, including automatic aid and mutual aid responses.

Findings

Table 20 shows the number of times per year (from 2020 to 2024) that the Department assisted other agencies with emergency responses, including automatic aid and mutual aid responses.

Table 20. Automatic and mutual aid responses, 2020 to 2024.

Type of Aid	2020	2021	2022	2023	2024
Assistance to other agencies	0	0	3	1	1
Assistance to police	1	1	3	2	1
Assisting other fire departments: Other	0	0	0	0	1
Mutual aid	1	1	2	4	1
Total	**2**	**2**	**8**	**7**	**4**

Table 21 shows 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
Loss fires: structures	9	8	6	4	4
Loss fires: other	1	0	0	4	0
Loss fires: vehicles	3	2	4	3	2
Total	**13**	**10**	**12**	**8**	**6**

Table 22 shows the dollar loss amount per occupancy group in Tay Township from 2020 to 2024.

Table 22. Dollar loss by occupancy type, 2020 to 2024.

Occupancy	2020	2021	2022	2023	2024
Group A: assembly	$0	$600,000	$0	$0	$0
Group B: care, treatment, and detention	$0	$0	$0	$0	$0
Group C: residential	$885,000	$1,332,000	659,999	$1,350,000	$2,235,000
Group D & E: mercantile and commercial	$0	$0	$0	$0	$0
Group F: industrial	$0	$0	$0	$0	$0
Not classified	$261,000	$0	$0	$0	$0
Vehicle	$15,500	$30,000	$73,000	$89,000	$364,000
Yearly Loss	**$1,161,500**	**$1,962,000**	**$732,999**	**$1,439,000**	**$2,599,000**

Table 23 shows the Department's average chute times and total response times for the dollar loss fires that occurred from 2020 to 2023.[22] The table also indicates the average number of personnel who attended the emergency scenes.

Table 23. represents response times for dollar loss fires.

Category	2020	2021	2022	2023
Average chute time	5m 41s	6m 09s	4m 43s	4m 49s
Average total response time	10m 05s	11m 02s	9m 23s	9m 25s
Average personnel on location	13	14	11	9

Tay Township has a water supply agreement with the Town of Midland. This agreement is part of the County of Simcoe Mutual Aid Plan and Program. Under this agreement, the Midland Fire Department supplies a tanker when confirmed structure fires occur in areas of Tay Township that are not protected by fire hydrants. This agreement may positively impact response times in Tay Township and strengthen the Department's effective response force.

[22] As of this FMP, response time data for 2024 is unavailable.

11.3 Roadmap for Improvement

Determine an Effective Response Benchmark and NFPA Standards

The Department should develop a response benchmark that includes targets for response times and the number of firefighters who should be on the scene of a dollar loss fire or technical rescue. Ideally, the proposed response benchmark should align with the rural demand zone standards listed in NFPA 1720. Once the proposed response benchmark is ready, it should be presented to Council for consideration and approval.

After a response benchmark is established, the Department may wish to investigate trends related to emergency response data. Analyzing the types, frequency, and locations of calls over time can reveal patterns or highlight areas with increasing demand or service gaps. This information can be used to support future decisions about staffing levels, apparatus placement, and resource allocation. In addition, the Fire Chief should review the response times for each fire station in Tay Township, paying close attention to which parts of the day are more likely to have longer response times. Using this data-driven approach will help the Department understand where operational improvements or adjustments may be necessary.

Finally, the Fire Chief should investigate whether automatic aid agreements with neighbouring fire departments would enhance the Department's response capabilities. For instance, some areas of Tay Township may be closer to a fire station in a neighbouring municipality than to one of the Department's stations. If a dollar loss fire or technical rescue incident occurs in one of those areas, a neighbouring department may be able to respond more quickly than the Department. If the Fire Chief determines that an automatic aid agreement is necessary, Tay Township should reach out to the appropriate municipality to begin negotiations. Establishing an automatic aid agreement could lead to faster on-scene times, reduced property damage, and improved outcomes for residents.

11.4 Recommendations

Recommendations regarding response in Tay Township are as follows:

11-1. The Fire Chief should develop a response standard for the Tay Township Fire Department. Ideally, the standard should be based on the rural response model outlined in NFPA 1720, which identifies the minimum number of certified firefighters required for an effective response to dollar loss fires. The proposed standard should be submitted to Council for consideration and approval.

11-2. The Fire Chief should keep pursuing the formation of mutually beneficial automatic aid agreements with neighbouring fire departments in order to improve response times and enhance coverage, particularly for dollar loss fires near municipal boundaries.

12.0 Fire Department Structure

12.1 Overview

Factors related to the topic of organizational structure include leadership, resource allocation, and staffing levels. Each of these factors can directly affect a fire department's efficiency and safety during emergency responses, as well as the level of public trust in the department's capabilities.

According to the NFPA, organizational effectiveness is closely linked to emergency response outcomes, with well-managed fire departments showing better incident control and lower injury rates.[23] A strong organizational foundation can also enhance a fire department's ability to conduct fire prevention, public education, and community engagement initiatives.

12.2 Organizational Structure and Staffing Levels

12.2.1 Staffing

Context

A fire department must ensure that it has the appropriate staffing levels and positions to meet the emergency response needs of the community it serves.

Having an appropriate staffing structure can help a fire department accomplish the following objectives:

- Minimize response times.
- Dispatch enough personnel to perform critical tasks (such as fire suppression, search and rescue, and incident command) simultaneously.
- Enhance the safety of firefighters and members of the public.
- Increase operational efficiency.
- Comply with provincial standards.

Findings

As of this FMP, the Department has 70 staff members.

Figure 6 illustrates the Department's current organizational structure.

[23] National Fire Protection Association, *NFPA 1201: Standard for Providing Fire and Emergency Services to the Public*.

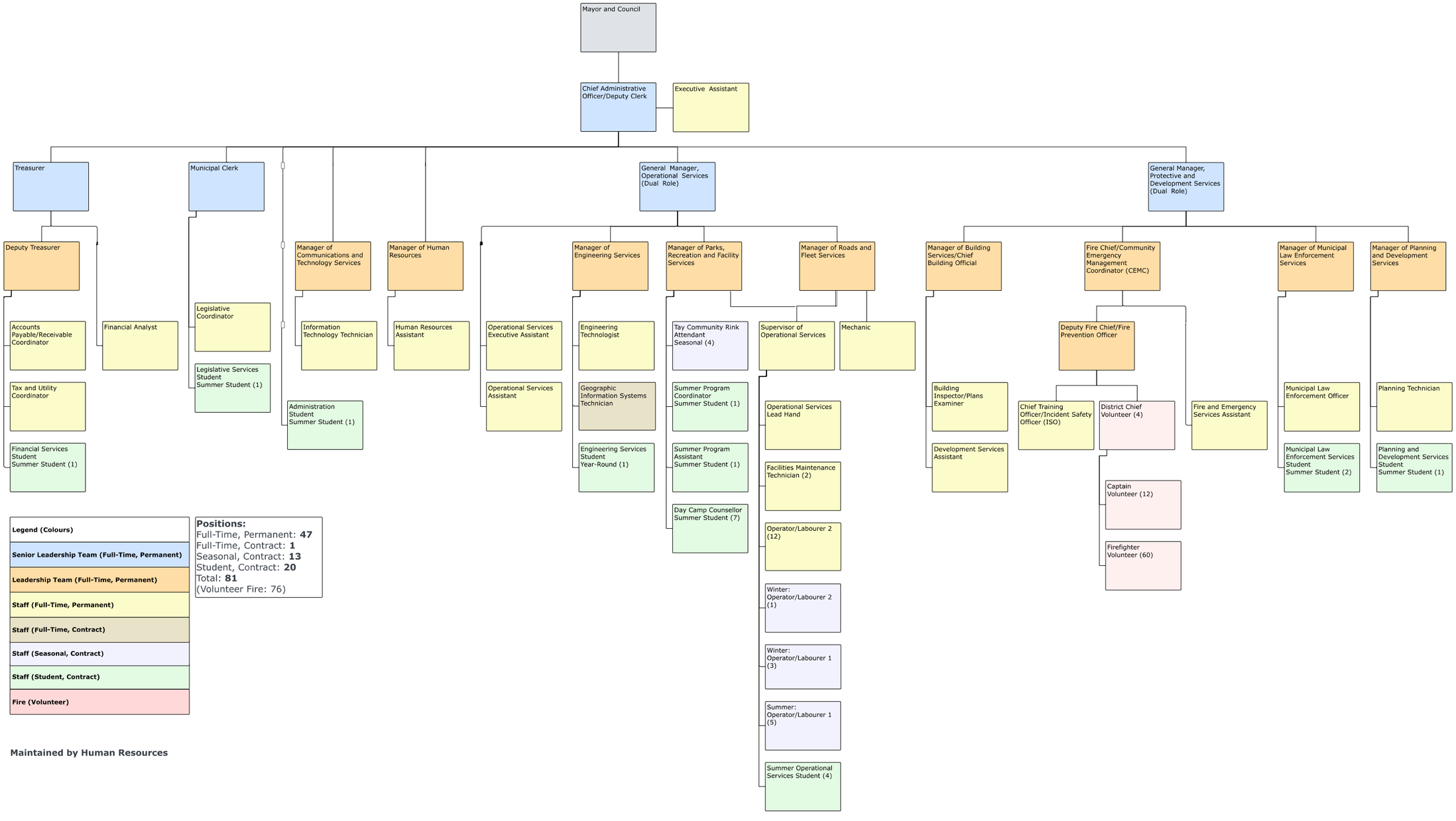

Figure 6. Organizational structure of the Tay Township Fire Department.

12.2.2 Succession Planning

Context

It is essential for volunteer fire departments to conduct succession planning in order to maintain leadership continuity, operational readiness, and long-term sustainability.

Succession planning involves identifying and developing personnel who have the potential to fill leadership roles when current leadership personnel retire or step down. Fire departments may choose to develop their personnel through mentorship programs, structured training, and acting officer opportunities. It is also useful for a fire department to establish and communicate promotional policies so that its members can understand the ways they can advance in their careers.

Key components of a well-structured succession plan are as follows:

- Identify key roles in the fire department.
- Outline the skills and qualifications required for each key role in the fire department.
- Provide qualified personnel with the training and experience they need to step into key roles when required.
- Develop and maintain a training program.
- Develop and maintain a fire prevention program.
- Complete administrative duties.

There are many reasons why it is important to complete succession planning. For example, if a specific member of the fire department is absent (such as someone in a leadership role), the completion of important tasks may be delayed or disrupted. This situation may lead to a single-point-of-failure scenario if there are no additional personnel who are trained to perform those tasks. In some cases, the inability to complete certain tasks may hinder operational effectiveness and firefighter safety.

The OFM emphasizes the importance of succession planning in the fire service, especially for volunteer departments, where turnover can be more frequent, and leadership development opportunities may be limited.

Findings

The Department is developing its training and prevention programs, and it has an informal succession plan. However, a formalized succession planning program (or related initiatives) has not yet been developed. If a single-point-of-failure scenario occurs, the Department may face challenges due to a lack of redundancy.

12.3 Job Descriptions

Context

Job descriptions should clearly define the roles, responsibilities, and expectations of each position in an organization.

In the fire service, detailed job descriptions can help a fire department accomplish the following objectives:

- Ensure that all personnel understand the duties associated with their role.
- Ensure that all personnel understand how their role fits within the department's structure, supporting both individual and team effectiveness.
- Ensure that all personnel understand their level of accountability.
- Ensure consistency between roles.
- Increase operational efficiency, reduce confusion, and improve safety.
- Provide a foundation for recruitment, training, performance evaluation, and succession planning.
- Support compliance with legislation (such as the OFM and the OHSA).

Findings

Fire Chief

The primary duties assigned to the Fire Chief are as follows:

- Lead and oversee the Department.
- Prepare reports for Council, make recommendations, and deliver presentations.
- Enforce applicable legislation (such as the FPPA).
- Lead the ECG for emergency management purposes.

Deputy Chief

The primary duties assigned to the Deputy Chief are as follows:

- Oversee the day-to-day administration, coordination, and supervision of reporting staff.
- Make strategic recommendations to Tay Township's leadership team.
- Assume the duties of the Fire Chief in their absence.
- Enforce applicable legislation (such as the OFC).

Chief Training Officer/Incident Safety Officer

The primary duties assigned to the Chief Training Officer/Incident Safety Officer are as follows:

- Develop and implement approved training programs, manuals, and lesson plans.
- Research and evaluate policies, procedures, techniques, and equipment.
- Act as an incident safety officer when the Department is at an emergency scene or delivering fire suppression services.

District Fire Chiefs

The primary duties assigned to the district fire chiefs are as follows:

- Manage the readiness and service levels at the fire stations.
- Provide advice regarding the Department's recruitment and promotional processes.
- Provide leadership by assuming command of emergency scenes (as required).

Captains

The primary duties assigned to the captains are as follows:

- Respond to emergencies, including fires, rescues, hazardous material incidents, and other incidents.
- Perform various firefighting activities.
- Attend regular training sessions to practise new and existing procedures.
- Facilitate training sessions (as directed by the Chief Training Officer).
- Act as the incident commander at emergency scenes in the absence of a higher-ranked individual (or as directed).

Firefighters

The primary duties assigned to the firefighters are as follows:

- Respond to emergencies, including fires, rescues, hazardous material incidents, and other situations.
- Perform various firefighting activities.
- Attend regular training sessions to practice new and existing procedures.

Public Education Volunteer

The primary duties assigned to the public education volunteers are as follows:

- Deliver public education programs at applicable events and shows.
- Engage with the public through individual interactions and group presentations.
- Collaborate with partners involved in public safety.

Administrative Staff

The primary duties assigned to the administrative staff are as follows:

- Coordinate and maintain volunteer firefighter information using the appropriate software.
- Maintain payroll timesheets using the appropriate software.
- Track equipment, prepare records, and maintain webpages related to the Department.

12.4 Roadmap for Improvement

Succession Planning

The Fire Chief should develop a formalized succession plan for the Department. This plan should outline initiatives related to leadership development, cross-training, and mentorship.

The succession plan should be designed to ensure that the Department has several capable individuals who can complete the following tasks:

- Assume greater responsibilities over time.
- Assume the role of incident commander (as needed).
- Conduct fire investigations.
- Lead technical rescues.

All training associated with the succession plan should be designed to maximize knowledge retention, as this will ensure that the Department's personnel can continue delivering high-quality services to the community.

Overall, developing a formalized succession plan will help the Department address its future leadership needs in a sustainable manner while also putting measures in place to avoid a single-point-of-failure scenario. Proper succession planning will help ensure that the Department's personnel are prepared to handle current challenges, as well as opportunities for professional development.

12.5 Recommendations

Recommendations regarding the fire department structure in Tay Township are as follows:

12-1. The Fire Chief should develop a succession plan for the Tay Township Fire Department.

13.0 Fire Station Facilities

13.1 Overview

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. A fire station must also have the capacity and resources to support various administrative operations.

13.2 Fire Station Facilities in Tay Township

Context

Size and Configuration of a Fire Station

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.

Several standards apply to the configuration of a fire station, such as:

- NFPA 1901 emphasizes the importance of design considerations that accommodate vehicle sizes and operational needs.
- NFPA 1500 emphasizes that station safety and layout are key components of firefighter health and wellness.

Modern fire stations should have the capacity and resources to furnish a variety of spaces, including:

- administrative areas
- training rooms
- storage areas
- exercise room (to support the physical aspects of firefighter wellness)
- kitchen facilities
- common room
- parking space
- apparatus floor

Fire departments also need fire stations that are easy to renovate or update 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.

Assessing a fire station's overall functionality involves an examination of the following areas:

- parking area
- washroom and shower facilities
- storage area
- common area
- office area
- training area
- apparatus floor

Each of these areas serves a specific purpose that supports a fire department's operations.

For example, a well-designed lounge space can play a significant role in supporting firefighter retention and mental well-being. In smaller communities, volunteer fire departments are the backbone of emergency responses. As such, it is important to create a welcoming and supportive environment that can help reduce burnout, encourage social connection, and ultimately improve retention rates. Moreover, providing a dedicated lounge area aligns with mental health best practices, and it shows that a fire department recognizes the sacrifices made by the volunteer personnel who serve their communities.

Section 8 of this FMP discusses some of the reasons decontamination and cleaning areas are critical components of a fire station's infrastructure. Firefighters are exposed to various hazardous substances (such as carcinogens, biological agents, and toxic residues) during emergency responses. Without proper decontamination protocols and dedicated cleaning facilities, these contaminants can be transferred to living quarters, vehicles, and personal gear. This transference increases the potential for long-term health risks.

There are guidelines related to infection control in NFPA 1581, *Standard on Fire Department Infection Control Program*. These guidelines emphasize the need for designated areas to clean and store contaminated gear separately from clean zones.

The Firefighter Guidance Notes also stress the importance of maintaining contamination control by minimizing occupational illnesses and ensuring compliance with health and safety regulations.

Overall, investing in proper decontamination infrastructure helps protect firefighters from chronic exposure, and it demonstrates a fire department's commitment to professional standards and personnel well-being.

A dedicated training space is also important to have in a fire station, particularly for volunteer fire departments. As noted in section 10 of this FMP, effective training prepares firefighters to respond swiftly and efficiently in a way that safeguards lives and property. A training area (or training facility) enables a fire department to provide consistent and safe hands-on training that simulates the complex scenarios firefighters encounter (such as structural fires, vehicle extrication incidents, and hazardous material incidents). Moreover, a proper training ground supports the OFM's recommendations related to firefighter certification requirements and ongoing skills maintenance. These recommendations are designed to help fire departments meet provincial standards while enhancing teamwork, confidence, and operational readiness.

Key Building Features in Older Fire Stations

The age of a fire station is an important consideration. Often, older fire stations are unable to undergo significant renovations or accommodate new equipment, such as updated health and safety systems.

In many municipalities, budgeting concerns have impacted the ability to keep the systems in older buildings up to date. As a result, it is common for older fire stations to have poor or failing lighting and HVAC systems. The design of older buildings may also fail to meet current legislative requirements.

Currently, there is no Canadian report or standard that addresses the features of older fire stations. However, in 2024, the NFPA published a report that included information about the renovation needs of U.S. fire service providers. Since many Canadian fire departments have chosen to implement NFPA standards into their operations, this report can serve as a useful reference for fire departments in Canada.

The NFPA report discussed various studies that were conducted to assess fire stations that are over 40 years old. An excerpt from the report reads as follows:

> There is no national guidance for the maximum age of a fire station. However, older fire stations do not have the modern facilities that are most beneficial for fire stations, such as decontamination areas with laundry facilities and gear storage areas that are separate and apart from living areas, exhaust capture systems, and private or separate facilities for male and female firefighters. Old fire stations are also more likely to have problems that cannot be addressed through repair and maintenance alone.[24]

[24] Messerschmidt, "Renovation Needs of the US Fire Service."

The NFPA report goes on to identify key features that are often lacking in fire stations that are over 40 years old. Typically, an older fire station will lack the following features:

- backup power
- exhaust emission control
- private or separate facilities for men and women

As noted above, many older fire stations were not built to include separate facilities for both men and women. This is because the facilities were constructed before female firefighters were common in the fire service. In response to this lack of private facilities, the NFPA made the following observation:

> Many fire departments are recognizing a need to retrofit fire stations to have either private gender-neutral facilities or separate facilities for men and women. The current trend in fire station design is to have gender-neutral spaces to provide all firefighters with privacy while on the job.[25]

In addition, over the last 50 years, the average size of a fire apparatus has increased significantly. As a result, fire departments need more apparatus floor space than ever before. For instance, apparatus bay doors must also be wide and tall enough to accommodate the height of a modern fire apparatus. If a fire department does not have enough space to store a modern fire apparatus, that department may be unable to modernize its fleet and meet service expectations.

A lack of space can also pose a risk to firefighter safety. For instance, when a firefighter works in a confined apparatus bay, they are more likely to come into accidental contact with vehicles or equipment than when working in an appropriately sized apparatus bay.

Findings

Table 24 lists where Tay Township's fire stations are currently located.

Table 24. Location of fire stations in Tay Township.

Station	Address
1 – Waubaushene	4 Fallowfield Lane, Waubaushene
2 – Old Fort	2201 Old Fort Road, Tay
4 – Port McNicoll	714 Third Avenue, Port McNicoll
5 – Victoria Harbour	266 Park Street, Victoria Harbour

[25] Ibid.

In terms of staffing levels, the Department strives to have a complement of 19 personnel at each station.

Overall, the Department's fire stations are in good condition. The condition of Station 5 (shown in Figure 7) is typical of the general condition of the fire stations. In terms of functionality, each facility allows the Department to meet its current operational needs.

Figure 7. Exterior of Station 5 – Victoria Harbour.

However, some of the fire stations have limited space in their apparatus bays, which can cause the following challenges:

- The lack of space may make it difficult for vehicles to enter and exit the stations.
- The lack of space may impact maneuverability within the apparatus bays.
- The lack of space may make it difficult for personnel to perform maintenance on their vehicles safely.

In addition to a general lack of space in the apparatus bays, some of the stations do not have adequate space for decontamination areas, especially Station 1 and Station 4. Moreover, Station 1 has offices, a bunker gear storage area, a training area, and washroom facilities, but the rooms for these spaces are not big enough.

As noted in section 8.8.2, all four of the Department's fire stations have exercise equipment. However, the quantity, style, and condition of the equipment vary from station to station. The Department should consider upgrading its fitness equipment and providing more wellness amenities. These features can directly impact firefighter health,

injury prevention, morale, and overall job satisfaction. Dedicated fitness spaces may also help improve response times, as personnel may be at their fire stations when an emergency call is received.

13.3 Roadmap for Improvement

Apparatus Floor Space

As noted in section 13.2, the need for apparatus bay space has increased significantly in recent years, especially because the size of a modern fire apparatus is larger than previous models.

Going forward, the Department should develop a ten-year infrastructure plan. This comprehensive plan should outline a series of initiatives that can be completed to increase the dimensions of the apparatus bays to accommodate modern types of fire apparatus. These upgrades will help ensure there is space to accommodate future apparatus purchases, and they will improve the overall functionality and safety of the Department's fire stations.

Decontamination Areas

In order to support cancer prevention and wellness efforts, the Department should include the establishment of dedicated decontamination areas as part of its infrastructure plans. Decontamination areas are particularly needed at Station 1 – Waubaushene and Station 4 – Port McNichol. Providing these areas will improve firefighter safety, and it will align the Department's operations with current best practices and industry standards.

Furthermore, as noted in section 8 of this FMP, the level of awareness about occupational health risks has increased in recent years. Many organizations acknowledge that fire service gear and equipment must undergo gross decontamination before it is transported into clean areas within a fire station.

Office Areas and Training Spaces

There is a limited amount of office and training space at Station 1 – Waubaushene. This lack of space makes it difficult for the Department to manage day-to-day operations, coordinate training, and maintain essential records effectively.

As training requirements and service expectations for fire service personnel continue to increase, the absence of adequate office space and training infrastructure will impact the Department's ability to deliver efficient, safe, and professional emergency services. Therefore, it is essential for the Department to address the current space issues at its fire station in order to ensure that it can meet its current and future public safety responsibilities. Addressing these challenges will also help the Department keep pace with evolving community needs and increased demands for service.

On-Site Fitness Amenities

As a best practice, Tay Township may also want to consider establishing on-site fitness areas and wellness amenities at its fire stations.

Security and Lighting Systems

The various equipment and vehicles housed at the Department's fire stations are important municipal assets that are expensive to replace. As such, the Department should assess the security measures that it has established to prevent the theft, vandalism, or unauthorized use of its municipal assets.

At a minimum, the Department should assess the lighting and security systems at its fire stations. During the assessments, the Department should consider whether additional lighting in the parking areas will improve visibility for its firefighters as they arrive at the fire stations at night. Upgraded exterior lighting may improve the safety of the firefighters and the security of the fire stations during nighttime operations.

13.4 Recommendations

Recommendations regarding the fire station facilities in Tay Township are as follows:

13-1. Tay Township should implement a ten-year infrastructure plan to upgrade its fire stations. The plan should consider a range of upgrades, such as expanded apparatus bays, dedicated decontamination areas, backup power generators, enhanced security systems, and gender-inclusive facilities. All of the fire stations in Tay Township should be included in the plan, and particular focus should be given to addressing the infrastructure needs at the stations in Waubaushene and Port McNicoll.

13-2. Tay Township should assess opportunities to incorporate shared classroom space and expanded parking areas into future fire station renovation projects. These upgraded areas should be designed to meet evolving training needs.

14.0 Water Supply

14.1 Overview

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

Fire departments must remain aware of which water supplies are available in their communities, as a reliable water supply is essential for delivering effective fire suppression services.

14.2 Hydrant Protected Areas

14.2.1 Municipal Fire Hydrants

Context

In hydrant-protected areas, municipal water and distribution systems provide the water supply that firefighters use for emergency responses. These systems must have the capacity to provide firefighters with a water supply that has a sufficient flow for firefighting operations, and they must be able to support the local distribution system (including fire hydrants).

Municipalities are responsible for fire pump flow testing, hydrant testing, repairs, and replacements. In addition, a municipality must ensure that its fire hydrants adhere to the following standards:

- NFPA 291, *Recommended Practice for Water Flow Testing and Marking of Hydrants*
- OFC, section 6.6.3.5 (regarding fire pump flow tests)
- OFC, section 6.6.4 to 6.6.6 (regarding hydrant condition, inspection, and markings)
    - Reflective markers often come in the form of coloured rings or tapes. The purpose of the markings is to allow firefighters to assess hydrant capabilities quickly, even during periods of low light or adverse weather conditions. Installing these markers can aid in the efficiency of emergency response.

Table 25 shows the fire hydrant colour-coding scheme outlined in NFPA 291, *Recommended Practice for Water Flow Testing and Marking of Hydrants*.

Table 25. Colour classifications for municipal hydrants (as per NFPA 291).

Class	Top and Nozzle Colour	Barrel Colour	Fire Flow	Pressure
AA	**Light Blue**	**Chrome Yellow**	1,500 gpm (5,680 L/min or greater)	20 psi (140 kPa)
A	**Green**	**Chrome Yellow**	1,000 to 1,499 gpm (3,785 to 5,675 L/min)	20 psi (140 kPa)
B	**Orange**	**Chrome Yellow**	500 to 999 gpm (1,900 to 3,780 L/min)	20 psi (140 kPa)
C	**Red**	**Chrome Yellow**	500 gpm (1,900 L/min or less)	20 psi (140 kPa)

The NFPA colour scheme helps fire crews identify the amount of fire flow they can expect from a given hydrant. This visual indication allows firefighters to arrive at an incident site and quickly verify if there is enough water to complete the necessary response services. The colour-coding scheme also ensures that fire crews can make decisions about increasing the water supply by attaching it to another hydrant (if needed).

Figure 8 shows an example of a fire hydrant that is painted according to the colour scheme outlined in NFPA 291.

Figure 8. A fire hydrant painted according to the NFPA 291 colour code.

Another item to consider is the presence of Storz connections. If a fire hydrant has a Storz connection, the water flow capacity from that hydrant may be improved.

A Storz connection uses a large-diameter, quick-connect coupling system. This system significantly reduces the time and effort required to hook up hoses, especially under pressure-filled conditions. Retrofitting older hydrants with Storz adapters promotes compatibility with modern firefighting equipment. This initiative also ensures a more streamlined response is possible, particularly for mutual aid or automatic aid scenarios where consistency in hose connections is critical.

Overall, a Storz connection allows firefighters to connect a pumper truck to a hydrant quickly, and they may also increase the water flow for suppression activities.

Findings

Most of the municipal fire hydrants in Tay Township are painted according to the colour scheme that is specified by NFPA 291.

As of this FMP, there have been discussions with the Fire Chief about including reflective colour-coded rings on each side of the municipal hydrants. These reflective markings would be installed at the side port connections of the existing hydrants, as well as on any new hydrants.

Upon review, some of the existing hydrants in Tay Township do not have Storz connections.

14.2.2 Private Hydrants

Context

The following process is applicable for properties with private hydrants:

1. The property's owner or developer must provide hydrant installation and water flow certifications to the Chief Fire Official.
2. The Chief Fire Official must approve the flow certifications before the owner or developer is allowed to occupy the property.
3. After receiving approval to occupy their property, the developer or owner must ensure they test their on-site hydrants annually to verify they remain operational and comply with the OFC.

In contrast to the colour scheme specified in NFPA 291, private hydrants are usually painted red (as shown in Figure 9).

Figure 9. Example of a private fire hydrant.

Findings

Tay Township contains several private hydrants. The Department currently does not have in place a mechanism for determining if private hydrants are tested and maintained, in accordance with the Ontario Fire Code 6.6.6.1 and NFPA 291.

14.3 Non-Hydrant-Protected Areas

Context

Section 3.2.5.7 (1) of the OBC states, “An adequate water supply for firefighting shall be provided for every building.”

When fire departments respond to emergencies in areas without fire hydrants, they must use an alternate water source to provide fire suppression services. Dry hydrants and tankers are both common alternative water sources that fire departments can use to meet the requirements of the OBC.

Dry hydrants provide fire departments with a water supply culled from rivers, lakes, ponds, or storage tanks. Many fire departments that respond to calls in non-hydrant-protected areas rely on dry hydrants.

A tanker is a type of fire apparatus that can transport water to non-hydrant-protected areas. One benefit of a tanker service is that it may lead to reduced costs for residents. Many insurance providers offer reduced fire insurance premiums in communities that have fire departments with Superior Tanker Shuttle Accreditation.

Findings

The Department has access to 12 rural water supply locations, but one of these sites (called “Irish Pond”) is only available during the summer. The Department can obtain a water supply at these sites by drafting the water from an underground storage cistern or a standing body of water. An example of a dry hydrant is shown in Figure 10.

Figure 10. Dry hydrant in Tay Township

Currently, the Department ensures that its firefighters receive training on the use of drafting techniques in order to supply water for suppression activities. However, the Department has advised that the current rural water supply locations are adequate.

14.3.1 Superior Tanker Shuttle Accreditation

Context

The Superior Tanker Shuttle Accreditation program is available for fire departments that meet the following criteria:

- The fire department can maintain a minimum water supply of 200 gallons/minute for a two-hour duration for residential properties up to 8 km away from a fire station.
- The fire department can maintain a minimum water supply of 500 gallons/minute for a two-hour duration for commercial properties up to 5 km away from a fire station.

Findings

In June 2023, the Department received its Superior Tanker Shuttle Service accreditation.

14.4 Roadmap for Improvement

Reflective Markings on Municipal Fire Hydrants

Tay Township should include reflective rings on each side-port connection on all of its current municipal fire hydrants. All newly installed fire hydrants should also have these reflective markings. These markings will enhance firefighter efficiency and safety during emergency responses.

The reflective rings will improve the Department's ability to identify the fire hydrant locations, which will help the firefighters make faster connections to a water supply.

The reflectivity will also significantly improve visibility during nighttime operations or in low-light conditions. These factors will also reduce the time spent locating and assessing a hydrant's capability.

Finally, the installation of the reflective markings will align with industry best practices, and it will promote the standardization of the water infrastructure in Tay Township.

If Tay Township chooses to pursue this initiative, it may want to consider working with the Ontario Clean Water Agency.

Storz Connections for Existing and Future Fire Hydrants

Some of the existing fire hydrants in Tay Township lack a Storz connection. Each of these hydrants should be retrofitted for a Storz connection in order to improve operational efficiency and enhance the Department's ability to establish a water supply quickly during emergency responses.

If Tay Township upgrades its fire hydrants, it will also improve firefighter safety by minimizing and aligning the Department's operations with current industry standards and best practices.

Inspection Program for Private Hydrants

The Department should consider implementing a formalized inspection program for the private hydrants located in Tay Township.

A private hydrant can play a critical role in supporting fire suppression operations, particularly in areas where municipal hydrants may not be readily accessible. However, private hydrants are not owned or maintained by a municipality. As such, it is important to ensure that all private hydrants in the community are in proper working condition. Having a formalized inspection program can help ensure firefighter safety and operational effectiveness during emergency responses.

14.5 Recommendations

Recommendations regarding the water supply in Tay Township are as follows:

14-1. In order to enhance visibility during emergency responses, the Fire Chief should work with representatives of Tay Township and the Ontario Clean Water Agency to install reflective rings on the side-port connections of all existing (and future) municipal fire hydrants in the community.

14-2. The Fire Chief should work with representatives of the Ontario Clean Water Agency to retrofit all of Tay Township's existing fire hydrants with Storz connections in order to improve their compatibility with modern firefighting equipment, as well as enhance water supply efficiency and support faster, safer emergency responses.

14-3. Tay Township should consider implementing a formalized program to ensure that all private hydrants in the community are inspected, tested, and maintained in accordance with the Ontario Fire Code.

15.0 Asset Management

15.1 Overview

Asset management refers to the purchase, use, and upkeep of the various vehicles and equipment that fire departments use during emergency responses. Fire departments require their assets to remain in good working condition so that they can provide services safely and effectively.

A prudent asset management plan is essential to the success of a fire department's operations. The primary components of an asset management plan include strategic planning, cost forecasting, and budgeting.

15.2 Fire Fleet

15.2.1 Fleet Deployment

Context

Firefighters respond to many kinds of emergencies, including fires, explosions, and motor vehicle collisions. In order to manage these situations safely and effectively, firefighters need to have access to an adequate and reliable fire fleet. A typical fire fleet consists of various specialized vehicles, such as pumpers, tankers, rescue vehicles, and aerials.

Purchasing a vehicle for a fire fleet is a significant investment for any municipality. Due to these costs, it is crucial for fire departments to make sure they only purchase vehicles that are necessary for responding to the specific risks in their communities. Each type of vehicle serves a distinct purpose, and not every fire department requires every type of vehicle.

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.

Findings

The Department's fire fleet includes the following types of vehicles:

- pumpers

- tankers
- rescues
- marine boat and trailer
- small vehicles

The Department does not currently own or operate any off-road vehicles.

Figure 11 shows some of the vehicles that the Department houses at Station 1 in Waubaushene.

Figure 11. Vehicles housed at Station 1 in Waubaushene.

15.2.2 Safety Standards

Context

Over the years, the vehicles used by the fire service have undergone considerable changes. For example, modern vehicles are generally larger than older models, and they have significantly more advanced technology. In addition, many types of older vehicles do not possess important features mandated by current regulations, such as anti-lock braking systems and roll stability control.

Due to changes in construction materials and onboard features, the vehicles in a modern fire fleet must comply with stricter safety standards than their older equivalents. These safety standards are outlined in various legislative documents, such as:

- OHSA
- NFPA 1901, *Standard for Automotive Fire Apparatus*
- NFPA 1912, *Standard for Service Tests of Fire Pump Systems and Fire Apparatus*
- ULC S515-04: *Automotive Fire Fighting Apparatus*

Before purchasing any new vehicles for their fire fleets, municipalities and fire departments should carefully review all relevant laws and safety standards. This review is a crucial part of the planning and budgeting discussions that should take place during the development of an asset management plan.

By budgeting for the replacement of vehicles at the appropriate times, fire departments can protect the health and safety of their firefighters and maintain service levels in their communities.

Findings

The Department follows applicable industry standards when it is time to purchase a new fire apparatus.

15.2.3 Inspections, Testing, and Maintenance

Context

A fire fleet must undergo weekly and annual inspections, tests, and maintenance in order to ensure that each vehicle can start and operate properly whenever an emergency occurs. This level of servicing involves the following tasks:

- checking and adjusting brakes
- making lubrication and oil changes
- completing annual pump tests
- completing non-destructive ladder tests
- completing Ministry of Transportation inspections

Ongoing vehicle maintenance is imperative to the success of a fire department’s operations. If the vehicles in a fire fleet cannot pass routine maintenance requirements (such as pump testing and regular valve replacements), a municipality and its firefighters are at risk of safety and liability concerns.

As a result of routine upkeep, each vehicle in a fire fleet will be out of service for several days a year in order to undergo scheduled maintenance. In addition, many types of servicing cannot be performed in-house. For example, fire departments usually need to hire mechanics with specialized training to inspect and repair safety systems, pollution control systems, and engine and driveline systems. In years past, a mechanically skilled firefighter could have performed those tasks, but the complex technology in modern vehicles has made it necessary to contract specialized assistance. Advanced maintenance work may also require certain vehicles to be taken out of service for extended periods.

Findings

The Department performs routine maintenance on its various types of fire apparatus. In addition, the Department has its apparatus pumps tested annually.

15.2.4 Fleet Renewal and Rationalization

Context

Fleet Renewal Considerations

A fire fleet assessment can begin with the following considerations:

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

A fire department should keep these considerations in mind because they will help identify which fire apparatus it should purchase to suit its current and expected needs.

Once a fire department has identified which fire apparatus it is likely to need, it should work with its municipal council to develop a strategic plan that outlines an appropriate fleet replacement schedule.

The following factors: for each vehicle in the fire department’s fire fleet:

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

Every municipal council and fire department should strive to have a fire fleet that is applicable to their community's needs. The fleet must have the functionality to operate whenever it is needed, and it must have the reliability to operate with minimal breakdowns at an emergency scene or during a training session.

When it is time to replace a fire apparatus, the factors of applicability, functionality, and overall vehicle condition should also be considered. Various technologies that firefighters can use while operating a new vehicle should also be considered, as well as ways to protect the safety of the vehicle's occupants.

Financial and Supply Considerations

Most municipalities develop fleet replacement plans for five- or ten-year timeframes. In order to be realistic, the plans must account for inflation rates. Some price fluctuations are due to heightened material and labour costs. Other price changes are due to supply chain issues. Due to inflation rates, suppliers may reserve the right to increase the amount they charge customers for a new apparatus, even if a customer has a fixed-price contract or has pre-ordered an apparatus.

Because inflation rates are difficult to predict with certainty, municipalities should include a contingency plan as part of their capital replacement budgets. Doing so can help a municipality manage potential price increases to its apparatus order. A capital contingency plan may also help a municipality set aside funds that it can use to offset apparatus maintenance and service costs.

Supply and demand can also affect fleet replacement schedules. As of this FMP, there is a backlog in truck orders due to supply chain disruptions that occurred during the COVID-19 pandemic. The result of the backlog is that protracted delivery times for new apparatus are possible. Due to this backlog, fire departments and municipalities should consider ordering their new apparatus at a time that accounts for possible delivery delays.

Fire Underwriters Survey

Fire departments can also reference material developed by Fire Underwriters Survey ("**FUS**") when developing an apparatus replacement plan. For example, in smaller communities, FUS will not recognize an apparatus that is more than 20 years old. However, FUS also recognizes the tremendous financial burden that buying fire apparatus places on municipalities. As such, FUS will allow a community to extend the life cycle of a used or rebuilt fire apparatus if the vehicle can pass the recommended annual tests and is deemed to be in excellent mechanical condition.

When it is time to replace a fire apparatus, FUS recommends following the CAN/ULC-S515-13 standard, which was developed by the Underwriters Laboratories of Canada. This standard, titled the "Standard for Automotive Fire Fighting Apparatus," has been adopted as a national standard of Canada.

Table 26 presents a fleet replacement schedule that has been developed by FUS. The table's content and footnotes are sourced directly from FUS, as written by SCM Risk Management Services.[26]

Table 26. Fire apparatus replacement for fire insurance grading purposes.

Apparatus Age	Major Cities[27]	Medium Sized Cities[28] or Communities Where Risk is Significant	Small Communities[29] and Rural Centres
0-15 years	First line	First line	First line
16-20 years	Reserve	Second line	First line
20-25 years[30]	No credit in grading	No credit in grading or reserve[31]	No credit in grading or reserve31
26-29 years30	No credit in grading	No credit in grading or reserve31	No credit in grading or reserve31
30+ years	No credit in grading	No credit in grading	No credit in grading

[26] "Insurance Grading Recognition of Used or Rebuilt Fire Apparatus," Fire Underwriters Survey.

[27] Major Cities are defined as an incorporated or unincorporated community that has:

- a populated area (or multiple areas) with a density of at least 400 people per square kilometre; AND
- a total population of 100,000 or greater

[28] Medium Communities are defined as an incorporated or unincorporated community that has:

- a populated area (or multiple areas) with a density of at least 200 people per square kilometre; AND/OR
- a total population of 1,000 or greater.

[29] Small Communities are defined as an incorporated or unincorporated community that has:

- no populated areas with densities that exceed people per square kilometre; AND
- does not have a total population in excess of 1,000.

[30] All listed fire apparatus 20 years of age and older are required to be service tested by recognized testing agency on an annual basis to be eligible for grading recognition.

[31] Exceptions to age status may be considered in a small to medium sized communities and rural centres conditionally, when apparatus condition is acceptable and apparatus successfully passes required testing.

Findings

Table 27 shows the intended replacement schedule for the Department's fire fleet.

Table 27. Intended fleet replacement schedule, Tay Township Fire Department.

Vehicle	Make	Year Built	Proposed Replacement Year
Pumper 41	Freightliner	2025	2045
Pumper 21	Freightliner	2023	2043
Pumper 1	Freightliner	2019	2039
Pumper 51	Freightliner	2009	2029
Tanker 1	Freightliner	2019	2039
Tanker 22	Freightliner	2021	2041
Tanker 52	Freightliner	2013	2035
Rescue 53	Ford	2023	2039
Rescue 1	Ford	2017	2037
Rescue 43	Ford	2012	2028
Rescue 3	Ford	2000	2035
Car 1	Ford	2019	2029
Car 2	Ford	2025	2035
Car 3	Chevrolet	2013	2028
Spill Trailer	N/A	2011	No proposed date
Marine 1	N/A	2018	No proposed date
Marine 2	N/A	2018	No proposed date

15.3 Fire Service Equipment

Context

In addition to various types of apparatus, firefighters rely on a range of equipment to perform their duties.

Examples of fire service equipment are as follows:

- fire hoses and nozzles

- fittings
- ladders
- generators and lighting
- ventilation fans
- portable pumps
- saws
- gas detectors
- thermal imaging cameras
- various hand tools

Other essential equipment includes:

- radio communication systems
- dispatch equipment
- administrative systems, such as a records management system ("**RMS**")

All additional equipment is considered part of a fire department's assets. As a best practice, municipalities should keep track of the equipment their fire departments use, as this will assist with budget planning for any necessary repairs or replacements.

Findings

The Department purchases some types of fire service equipment annually. The proposed purchase dates of other items are included in future budgets.

Table 28 shows some examples of commonly used firefighting equipment. The table also indicates the rationale for purchasing the equipment, as well as how the items are incorporated into the Department's capital expenditure plan.

Table 28. Asset management plan for fire service equipment in Tay Township.

Item	Annual Purchase?	Explanation/Rationale	Capital Expenditure Plan
Radio communication equipment	No	This item refers to various equipment, such as portable radios and repeater towers.	This item is included in the Department's capital expenditure plan.
Firefighter protective ensembles (bunker gear)	Yes	This item is part of the Department's ten-year bunker gear replacement plan.	The Department purchases ten firefighter protective ensembles annually.
Fire hose replacement	Yes	A fire hose has a life expectancy, and it is possible that a fire hose may fail during the hose-testing process.	This item is purchased as required. Typically, a hose is purchased after the hose-testing process is complete.
Small equipment (such as portable pumps)	No	This item refers to the Department's small equipment inventory.	Typically, the Department purchases small equipment when it purchases a fire apparatus.
Wi-Fi connectivity at fire stations	No	This item refers to IT enhancements that will allow the Department to deliver training and complete other operations in areas with poor Wi-Fi signals.	All fire stations in Tay Township have public and private Wi-Fi.
Emergency management training and exercises	Yes	Tay Township must complete emergency management training and exercises for compliance purposes. The exercises will also help Tay Township test the effectiveness of its emergency management policies, procedures, and capabilities. This process can help identify strengths, weaknesses, and areas for improvement.	Emergency management training is conducted annually.
Firefighter training equipment	Yes	The Department should invest in firefighter training equipment (and applicable training props) in order to support core training needs and meet compliance requirements.	Firefighter training props are purchased and built annually.

Item	Annual Purchase?	Explanation/Rationale	Capital Expenditure Plan
Automobile extrication equipment	No	This item refers to the replacement of the Department's current extrication equipment.	The extrication tools kept at Station 1 are scheduled for replacement in 2033.
Medical equipment	No	This equipment has a life expectancy, and it needs to be replaced accordingly.	Medical equipment is replaced as required.
Generator replacement	No	The cost of this item depends on several factors, such as the size of the building and the number of interior spaces that will receive backup power from the generator.	Generators are replaced as required.
Self-contained breathing apparatus	No	This item refers to the replacement of the Department's SCBA, which needs to be replaced for safety and compliance purposes. When the SCBA may be near the end of its life cycle, it should be a major consideration during capital expenditure budgeting.	The Department's SCBA harnesses and cylinders are scheduled for replacement in 2031.

15.4 Roadmap for Improvement

Asset Management Plan for Radio Communication Equipment

The Department should prioritize the development of a conservative and sustainable strategy for replacing and expanding its radio communication equipment. The Department should also continue working with stakeholders (such as the fire dispatch provider) to determine ways to improve its radios and other firefighter safety systems.

In order to help protect firefighter safety and ensure operational effectiveness, future radio purchases should reflect current best practices and emerging needs. For example, the Department's current radios lack a dedicated "mayday" emergency button.

Off-Road Vehicle

The Department should consider purchasing an off-road vehicle that is capable of navigating both rugged trails and snowy terrain.

Having an off-road vehicle would enhance the Department's ability to access hard-to-reach areas during emergency responses. For example, an off-road vehicle is essential for reaching patients or fire scenes in locations that a traditional fire apparatus cannot access, especially during adverse weather or in remote areas like trails, forests, or unplowed roads.

Ideally, the off-road vehicle should have the following features:

- four doors to accommodate crew members
- an enclosed cab to ensure year-round use
- a designated area for transporting a Stokes basket or long board (in order to allow for safe and efficient patient evacuation efforts)

An off-road vehicle that is especially designed for fire and rescue applications will provide the durability, versatility, and customization options required to meet specific operational demands. Purchasing such a vehicle is a practical and effective way to support the Department's evolving service needs.

Automobile Extrication Equipment

Tay Township should consider creating a structured financial plan to budget for the replacement of the Department's legacy automobile extrication equipment. Modern extrication equipment is lighter, faster, and more reliable than older equipment, which allows firefighters to work more safely and efficiently.

The financial plan should address the following objectives:

- Allocate resources responsibly.
- Secure potential grants or funding opportunities.
- Ensure the timely acquisition of equipment that enhances firefighter safety and community protection.

By purchasing new equipment, Tay Township can ensure that the Department is prepared to respond effectively to the demands of modern vehicle emergencies.

15.5 Recommendations

Recommendations regarding asset management in Tay Township are as follows:

15-1. In order to improve firefighter safety and communication, the Tay Township Fire Department should continue to explore the purchase of portable radios that have a “mayday” button function.

15-2. The Tay Township Fire Department should purchase an off-road vehicle that can be used for responses year-round. Ideally, the off-road vehicle should have an enclosed cab, four doors, and a dedicated Stokes transport area (to enhance access and patient care in remote or difficult-to-reach locations).

15-3. Tay Township should consider developing a financial plan to replace the Tay Township Fire Department’s legacy automobile extrication equipment with modern tools.

16.0 Documentation and Records Management

16.1 Overview

It is vital for every fire department to maintain up-to-date records about its response statistics, fire prevention, inventory, and maintenance efforts.

Proper records management ensures there is documentation to support the following administrative and operational needs:

- Proper records management provides evidence that the fire department, its fire chief, and its municipal council are meeting their legislative requirements.
  - For instance, accurate fire prevention records are crucial for ensuring that a fire department complies with local regulations.
- Thorough documentation can help a fire department reduce the risk of liability issues for itself and its municipality.
- A fire department can use documentation to complete strategic planning.
- Historical response data enables fire departments to analyze response times, identify service gaps, and justify staffing or funding needs. A fire department can also use this data to guide targeted community risk reduction efforts.
- Having a set of up-to-date inventories can support operational readiness by ensuring equipment is accounted for and serviceable. In addition, detailed fleet repair logs can help prolong the expected lifecycle of an apparatus, and they can assist with scheduling preventative maintenance and controlling costs.

Best practices have shown that using a formalized RMS is the most efficient way of maintaining accurate records. A robust RMS strengthens both the operational effectiveness and administrative accountability of a fire department.

16.2 Records Management System

Context

Fire departments should maintain various documentation in order to uphold consistency, safety, and operational efficiency. Some of the key types of documentation are as follows:

- Written policies, SOGs, and manuals ensure that all personnel understand their roles, follow best practices, and perform tasks uniformly. This guidance can reduce the risk of errors during emergency operations.

- Well-documented policies and procedures support legal protection and accountability by providing a clear record of departmental standards and expectations.
- Training schedules ensure that personnel meet certification requirements and keep their skills up to date. The schedules can also support a fire department's strategic planning efforts.
- Equipment checklists can help a fire department maintain readiness and identify maintenance issues early. This information can be used to prolong the life of essential apparatus and gear.

The standards NFPA 1500 and NFPA 1561 address the importance of written procedures and records. These standards are included in the consolidated standard NFPA 1550, *Standard for Emergency Responder Health and Safety*.

Findings

Table 29 summarizes the records management procedures that are currently used by the Department.

Table 29. Records management procedures, Tay Township Fire Department.

Topic	Comments
SOGs	The Department creates its SOGs using Microsoft Word.
Hose testing	Each time hose testing is completed, a record of the test is filled out as a paper copy. Going forward, the Department is considering a transition to digital testing records once its new RMS is established.
Online training	This item is tracked digitally using an RMS.
Truck checks	The Department has recently started keeping records for its truck checks using an RMS.
Truck maintenance	This item is tracked digitally using an RMS.
Pre-incident planning	This item is tracked digitally using an RMS.
Training, fire inspections, and incident reports	This item is tracked digitally using an RMS.
Response statistics	This item is tracked digitally using an RMS.

16.3 Roadmap for Improvement

Infrastructure and Technology Upgrades

The Department should continue to enhance the way it uses its electronic RMS. Doing so will help the Department with the following objectives:

- Improve operational efficiency, accuracy, and accountability.
- Enable faster access to critical information.
- Support data-driven decision-making processes.
- Evaluate performance levels and response times against industry standards (such as NFPA 1072).
- Streamline compliance monitoring and the incident reporting process.
- Streamline training documentation.
- Enhance equipment tracking.
- Facilitate pre-incident planning.
- Improve firefighter safety.

16.4 Recommendations

There are no recommendations regarding documentation and records management in Tay Township.

Appendix A: List of Abbreviations

This Fire Master Plan uses the following acronyms and abbreviations:

AHJ:	authority having jurisdiction
AODA:	Accessibility for Ontarians with Disabilities Act
CEMC:	community emergency management coordinator
CISM:	critical incident stress management
Council:	Council of Tay Township
CRA:	community risk assessment
Department, the:	Tay Township Fire Department
E&R bylaw:	establishing and regulating bylaw
ECG:	emergency control group
EMCPA:	Emergency Management and Civil Protection Act, R.S.O. 1990
EMP:	emergency management program
FMP:	fire master plan
FPPA:	Fire Protection and Prevention Act, S.O. 1997
FUS:	Fire Underwriters Survey
ICS:	incident command structure
ISO:	incident safety officer
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

PIAR:	post-incident analysis and review
PPE:	personal protective equipment
RMS:	records management system
SCBA:	self-contained breathing apparatus
SOG:	standard operating guideline
WHMIS:	Workplace Hazardous Materials Information System

Appendix B: References

Aiken, Laura. “The Economics of Apparatus - Fire Fighting in Canada.” Fire Fighting in Canada, October 27, 2022. https://www.firefightingincanada.com/the-economics-of-apparatus/.

Barber, Katherine. *Canadian Oxford Dictionary.* Oxford University Press, 2004.

Beetz, Jean, et al. “Laurentide Motels Ltd. v. Beauport (City) - SCC Cases.” Supreme Court of Canada, n.d. https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/436/index.do.

Blackwell, T. H., and J. S. Kaufman. “Response Time Effectiveness: Comparison of Response Time and Survival in an Urban Emergency Medical Services System.” Academic Emergency Medicine 9, no. 4 (2002): 288–95.

Canadian Centre for Occupational Health and Safety. “Diesel Exhaust,” June 13, 2023. https://www.ccohs.ca/oshanswers/chemicals/diesel_exhaust.html.

Durlauf, Steven N., and H. Peyton Young. *Social Dynamics*. MIT Press, 2004.

Earle, Richard B. Fire Apparatus Replacement: The Need for a Capital Plan. National Fire Academy, 1997. https://apps.usfa.fema.gov/pdf/efop/efo27938.pdf.

Government of Canada, Statistics Canada. “Census of Population,” January 9, 2024. https://www12.statcan.gc.ca/census-recensement/index-eng.cfm.

Haynes, Hylton J. G., and Gary P. Stein. *Canadian Fire Department Profile, 2014-2016*, 2018. https://www.nfpa.org//-/media/Files/News-and-Research/Fire-statistics-and-reports/Emergency-responders/oscanada.pdf.

Health Canada. “Emergency Preparedness.” Canada.ca, September 3, 2019. https://www.canada.ca/en/health-canada/services/health-concerns/emergencies-disasters/emergency-preparedness.html.

Hemson Consulting Ltd. “Simcoe County Land Needs Assessment,” 2022.

Jon's Mid America. "Should You Repair or Replace Your Old Fire Apparatus? Consider These 3 Factors," September 30, 2020. https://jonsmidamerica.com/repair-replace-old-fire-apparatus-consider-3-factors/.

Legislative Services Branch. "Consolidated Federal Laws of Canada, Vessel Safety Certificates Regulations," June 23, 2021. https://laws-lois.justice.gc.ca/eng/regulations/SOR-2021-135/.

Medical Advisory Secretariat. "Use of Automated External Defibrillators in Cardiac Arrest: An Evidence-Based Analysis." Ontario Health Technology Assessment Series 5, no. 19 (2005): 1–29. https://pubmed.ncbi.nlm.nih.gov/23074470.

Ministry of Labour, Training and Skills Development. "Firefighter's cancer prevention checklist." ontario.ca, October 30, 2020. https://files.ontario.ca/mltsd-firefighter-cancer-prevention-checklist-en-10-30-2020.pdf.

Ministry of the Solicitor General. "Firefighter Certification." ontario.ca, January 28, 2022. https://www.ontariocanada.com/registry/view.do?postingId=40668&language=en.

National Fire Protection Association. "Female Firefighter PPE: Investigation of Design, Comfort, and Mobility Issues for Female Firefighter Personal Protective Clothing," December 10, 2019. https://www.nfpa.org/-/media/Files/News-and-Research/Resources/Research-Foundation/Current-projects/ProjectSummaryFemaleFirefighterPPE.ashx.

National Fire Protection Association. "List of NFPA Codes and Standards," n.d. https://www.nfpa.org/Codes-and-Standards/All-Codes-and-Standards/List-of-Codes-and-Standards.

National Fire Protection Association. *NFPA 1021, Standard for Fire Officer Professional Qualifications*, 2020.

National Institute of Standards and Technology. "Landmark High-Rise Fire Study Evaluates Effectiveness of Crew Sizes, Elevator Use," April 10, 2013. https://www.nist.gov/news-events/news/2013/04/landmark-high-rise-fire-study-evaluates-effectiveness-crew-sizes-elevator.

National Institute of Standards and Technology. “Landmark Residential Fire Study Shows How Crew Sizes and Arrival Times Influence Saving Lives and Property.” National Institute of Standards and Technology, April 28, 2010. https://www.nist.gov/el/fire-research-division-73300/firegov-fire-service/landmark-residential-fire-study-shows-how-crew.

ontario.ca. “Fire Safety at Home,” March 2, 2023. https://www.ontario.ca/page/fire-safety-home.

ontario.ca. “Firefighter Guidance Notes,” May 27, 2022. https://www.ontario.ca/document/firefighter-guidance-notes.

ontario.ca. “Firefighter Training and Certification,” n.d. https://www.ontario.ca/page/firefighter-training-and-certification.

ontario.ca. “Supervisors under the Occupational Health and Safety Act,” n.d. https://www.ontario.ca/page/supervisors-under-occupational-health-and-safety-act.

ontario.ca. “The Office of the Fire Marshal,” August 12, 2022. https://www.ontario.ca/page/office-fire-marshal.

Pons, Peter T., et al. “Paramedic Response Time: Does It Affect Patient Survival?” Academic Emergency Medicine 12, no. 7 (July 1, 2005): 594–600. https://doi.org/10.1197/j.aem.2005.02.013.

Shahid, Mehreen. “Tay Fire Department Looking to Welcome Back an Old Friend.” OrilliaMatters.Com, August 8, 2020. https://www.orilliamatters.com/midland-news/tay-fire-department-looking-to-welcome-back-an-old-friend-2615786.

Shetler, Ian. “Where Are They Going?” Association of Municipal Managers, Clerks, and Treasurers of Ontario, 2011.

Tay Township. “Community Profile,” n.d. https://www.tay.ca/business-and-development/community-profile/.

Tay Township. “Tay Township Celebrates Grand Opening of Fire Hall 2 (Old Fort) - Tay Township,” September 30, 2017. https://tay.ca/news/tay-township-celebrates-grand-opening-of-fire-hall-2-old-fort/.

U.S. Fire Administration. *Retention and Recruitment for the Volunteer Emergency Services*. Federal Emergency Management Association, 2023. https://www.usfa.fema.gov/downloads/pdf/publications/retention-and-recruitment-for-volunteer-emergency-services.pdf.

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, Conversation, 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 bylaws that are necessary for the provision of fire protection.

Municipal Freedom of Information and Protection of Privacy Act: This act defines how access to information held by institutions is granted and obtained. The intention of the act is to protect the privacy of individuals concerning personal information about themselves held by institutions.

Occupational Health and Safety Act: This act outlines regulations that govern various occupational health and safety concerns.

O. Reg. 207/96: Outdoor Fires: This regulation outlines directives for controlling outdoor fires that occur outside of restricted fire zones.

O. Reg. 211/01 and 440/08: Propane Storage and Handling: These regulations require propane operators to obtain approval from their local fire department in regard to all risk and safety management plans. The fire department must approve the sections of the plans that deal with fire safety, fire protection, and emergency preparedness.

O. Reg. 213/07: Fire Code: This regulation outlines various requirements that fire departments must observe.

O. Reg. 297/13: Occupational Health and Safety Awareness and Training: This legislation outlines the health and safety awareness training that an employer must provide for its employees.

O. Reg. 332/12: Building Code: This regulation authorizes municipalities to appoint certain fire service personnel as building inspectors.

O. Reg. 340/94: Drivers' Licenses: This regulation outlines the licensing requirements of each class of motor vehicle.

O. Reg. 364/13: Mandatory Inspection – Fire Drill in Vulnerable Occupancy: This regulation mandates that fire departments complete inspections in vulnerable occupancies.

O. Reg. 365/13: Mandatory Assessment of Complaints and Requests for Approval: This regulation mandates that fire departments complete inspections upon complaint or request.

O. Reg. 378/18: Community Risk Assessments: This regulation mandates that a municipality or its fire department must complete a community risk assessment no later than five years after the day its previous community risk assessment was completed. The regulation also outlines content that all community risk assessments must include.

O. Reg. 380/04: Standards: This regulation defines standards for municipal emergency management programs.

O. Reg. 714/94: Firefighters – Protective Equipment: This regulation defines protective equipment standards that fire departments must meet.

Pesticides Act: This act makes it mandatory to report wholesale and retail pesticide use to the fire department.

Provincial Offences Act: This act authorizes assistants to the Fire Marshal to serve as provincial offences officers (in regard to offences related to smoke alarms).

Workplace Safety and Insurance Act: This act requires employers to report on-the-job accidents. The act also requires employers to document employee training records and provide them upon request.