

# Review of the Yukon Fire Marshal's Office fire suppression and rescue resources distribution



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## Final Report

Prepared for

**Yukon Government**  
**Department of Community Services**

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## EXECUTIVE SUMMARY

This *Review of Yukon Fire Marshal's Office fire suppression and rescue resources distribution* was completed by Response Specialties under contract to Yukon Government – Department of Community Services. Response Specialties has prepared this independent report, which includes a detailed environmental scan, broad engagement, a comprehensive review, and clear recommendations, for the Yukon Government (YG) to ensure that the Yukon Fire Service (YFS) is sustainable and effective into the future. The review and report meet the expectations outlined in the Ministers' Mandate Letter dated July 5, 2021.

All stakeholders who were engaged demonstrated cooperation, transparency, and integrity during the review process. Overall, our findings indicate that the YFS generally provides good service to the Yukon despite challenges in volunteer membership and administrative oversight that have existed for many years. The Yukon Fire Marshal's Office (FMO) recognizes the strengths and opportunities for improvement within each volunteer fire department (VFD), and it must build upon community relationships into the future. The YG similarly recognizes the strengths and challenges within the FMO in managing the YFS, and greater Yukon fire & life safety programming. A strong connection is readily apparent between the FMO, most VFDs and their Fire Chiefs.

Special thanks must go to:

- James Paterson, Yukon Fire Marshal, who demonstrated superior professionalism and an unwavering commitment to the project.
- The staff of the Fire Marshal's Office who were a beacon of honesty. Each provided insight to inform the project and empower it to make a difference for the YFS.
- The Fire Chiefs and firefighters from each community who provided frank and detailed understanding. Their dedication and enthusiasm are the backbone of fire protection in Yukon.
- The engaged and passionate citizens of Yukon who pushed us to listen to their concerns on the need to feel safe and be protected from fire, and to seek innovative solutions.
- The First Nation representatives who provided their knowledge and unique vision.
- The many representatives of YG that we spoke with whose thoughtful guidance and experience brought forth information that would otherwise likely not have become known in a manner that promotes growth, cooperation, and support of all stakeholders involved.

While the situation in Keno may have been a catalyst for this review, the findings indicate that the issues in Keno are not unique to that community, nor are the solutions. This report identifies 104 total recommendations, of which 87 are General Recommendations identified within the Findings and Analysis section of the report, and an additional 17 Strategic Recommendations, covering major organizational or regulatory issues, which are discussed individually. All recommendations are constructed with the assumption that they be implemented over the next one to five years.

The YG needs to embrace innovative solutions to the situation in Keno, as well as other communities like it that cannot support a volunteer fire department. Primary findings of the review reveal that the YG should enhance governance, legislative compliance, and fiscal management in the FMO and YFS generally. Change is recommended to both the legislation, as well as staffing and organization of the FMO and the YFS. The FMO team itself needs to grow and come together in order to meet the elevated

expectations and workloads of the organization. The recommendations put forth in this report address all of the above issues and will help to evolve the YFS strategically, as well as reduce liability and risk exposure. The review identifies numerous examples of “low hanging fruit,” as well as workable solutions for specific situations using innovation like Fire Protection in a Box (FPIB).

The YFS is a unique fire service in Canada, with the FMO having significant administrative and operational involvement at the community level. Currently, the Fire Marshal/Fire Commissioner Office in all other provinces and territories practices a full prevention-based model with little to no operational role. A transition in Yukon to eliminate the operational involvement of the Yukon FMO from local fire protection delivery would undoubtedly result in the dissolution of fire protection in many communities; something that would likely result in significant political action at the local level. To maintain the current standards for service in the Yukon, the YG, the FMO, and the YFS must evolve and transition to a more sustainable and manageable organizational model. As the FMO has never undergone a similar form of review, it can be expected that there will be challenges with acceptance and implementation of the report recommendations. Strong, directed leadership will be essential to success of the changes recommended.

The principal action items for YG, as identified within the recommendations of the report are:

1. Review of, and modification to, the organization and mandate of the FMO itself.
2. Re-visioning of the reporting and governance model applied to VFDs within the YFS.
3. Enhancement or change to the relationship between the FMO and municipal fire services.
4. Innovative changes in fire protection methods, including for First Nation communities.
5. Enhancement to FMO asset management, fiscal management and risk management practices.
6. Amendments to multiple Yukon legislative documents directed at firefighter training, service delivery, and fire safety.
7. Improvements to recruitment, safety, and training of firefighters.

The benefits of implementing the recommendations put forward include, but are not limited to:

- Greater compliance with Yukon legislation resulting in reduced risk exposure and safer workplace practices.
- Enhanced FMO organization, its reporting structure, and its relationships with VFDs, leading to long-term increased operational efficiency and effectiveness.
- Improved relationships and opportunities for partnerships between the FMO and municipal fire services.
- Opportunity for innovation and growth for First Nation participation in fire services.
- Improved internal FMO practices, teamwork, and competencies.
- Sound YFS financial and risk management planning grounded in established YG practice.
- Opportunity for northern initiative to thrive and innovation to be implemented.
- Rationalized and realistic response capabilities and training standards established.
- Realistic fire protection options for Keno, and every other size and type of community.

Response Specialties is proud to have been selected to lead the review, and to present this comprehensive report and recommendations to guide the YFS forward through the next 10-15 years.

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## INTRODUCTION

Response Specialties is honoured to have been selected to lead the “*Review of Yukon Fire Marshal’s Office fire suppression and rescue resources distribution*” project, and to present this comprehensive report with recommendations to guide the Yukon Government (YG) forward.

This Fire Service Review of the Yukon Fire Service (YFS) was completed by Response Specialties under contract to the Yukon Government – Department Community Services (CS). The primary purpose of the project was to complete a comprehensive review of the Fire Marshal’s Office (FMO) and the volunteer fire departments (VFDs) under its jurisdiction. The four principal components to the project included: an Environmental Scan, an Engagement Process, a comprehensive review and analysis, and recommendations for options to move forward.

## BACKGROUND AND CONTEXT

The FMO is a branch within the Protective Services Division of the Department of Community Services in YG. The FMO has a three-pronged role in terms of territorial fire services: first, in a governance and oversight capacity, as the entity responsible for the delivery of fire protection and emergency response services to residents; second, in an administrative role to provide support as needed and requested by VFDs; and third, as the enforcement agency responsible for compliance with fire safety related legislation. This multi-role mandate presents several challenges to the FMO. It must balance the need for oversight and legislative compliance, while recognizing and enabling the VFD needs for an appropriate level of autonomy and independence. Further, it must support the Fire Chiefs responsible for the day-to-day operations of VFDs and retain the essential cultural elements which characterize the volunteer fire service. To ensure the continued success of a volunteer-based service delivery model, the FMO must strike a balance in both establishing management control while simultaneously enabling an appropriate level of local autonomy.

The Fire Marshal performs in the role of Authority Having Jurisdiction (AHJ)<sup>1</sup> for the YFS. There are 16 unincorporated communities that form part of the historic YFS. The following list identifies the current operational status of each, and those which received consultant site visits during the review.

### Closed firehalls/departments

- Keno – site visit
- Mendenhall – site visit
- Old Crow – no contact obtained
- Pelly Crossing – site visit
- Ross River – no contact obtained

### Minimally functional (3 or fewer members)

- Beaver Creek - Zoom interview
- Burwash Landing – phone interview
- Carcross – site visit
- Upper Liard – Zoom interview

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<sup>1</sup> Authority Having Jurisdiction identifies the organization that has legislated responsibility for a designated area

#### Functional

- Golden Horn – site visit
- Hootalinqua – site visit
- Ibex Valley – site visit
- Klondike Valley – site visit
- Marsh Lake – site visit
- Mount Lorne – site visit
- Tagish – site visit

Additionally, each of the eight Yukon municipalities were invited to participate and provide input. Many were interviewed - and two were visited - to provide important and insightful information to the review.

- Whitehorse - Zoom interview
- Teslin - Zoom interview
- Watson Lake - telephone interview
- Dawson City – telephone interview
- Carmacks – site visit
- Faro – no contact obtained
- Mayo – site visit
- Haines Junction - Zoom interview

Historically, all 16 individual unincorporated community VFDs existed on some level of functionality. Five (Keno, Mendenhall, Ross River, Pelly Crossing and Old Crow) have not been functional for many years. Four more have very minimal function with only one to three members active (Burwash Landing, Beaver Creek, Upper Liard and Carcross). Pelly Crossing is currently attempting to re-start services and are researching opportunities of either rejoining the FMO service or starting a self-governing First Nation<sup>2</sup> fire service on their own. The remaining seven VFDs from the original 16 are the only ones operating where services could be expected to be provided at an adequate level of competence.

The YFS has undergone notable change and turmoil within the past 15 years, primarily due to the increased requirement for regulatory compliance and a sharp decrease in local volunteerism. The FMO finds it difficult to govern and manage the entire YFS within its legislated mandate under the current small staff size. FMO staffing small in comparison to other Canadian jurisdictions<sup>3</sup> when consideration is given to the enhanced responsibility for operations, resources and administration. Each of the community VFDs run semi-autonomously; some much more than others. The FMO does rely heavily on local “champions,” usually Fire Chiefs, to keep the VFDs functional but the individualism exhibited by some place’s additional pressures on the FMO staff and the territory-wide service model.

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<sup>2</sup> First Nations in Canada may organize and manage internal fire protection organizations under their own authority similar to any other jurisdiction

<sup>3</sup> See Question 7 of Appendix 8

This fire service review is timely for numerous reasons:

- Demands on the YFS are increasing with population of both seasonal/recreational and permanent residents, especially retirees, who move from larger southern Canadian cities.
- There is an exceptionally large fire service coverage area resulting in excessive response times from relatively few organized VFDs. Training and operational capabilities are generally lower in Yukon compared to the southern provinces. The number and capabilities of potential and current volunteers does not support enhanced expectations.
- Expectations of service delivery levels are inconsistent with local or territorial capability. Many residents who were engaged expect emergency services at, or near, the same level as much larger communities in other jurisdictions, often where they lived before moving to Yukon. This is a major challenge for the FMO and YG.
- Legislation is dated and/or inappropriate for the current fire service and needs to be amended to address emerging responsibilities and liabilities.
- The FMO acknowledges struggling to maintain their mandate of administrative and operational oversight. They have repeatedly expressed frustration with the challenges they face to simply “operate properly.”
- There are growing needs for fire service compliance with Occupational Health & Safety (OH&S), Yukon Government regulatory requirements, and other agencies.
- YG is identifying increasing concern regarding their level of liability in relation to VFD operations under the current system.
- Fire services and related resources are expensive, and therefore require integrated strategic planning to manage costs and maintain compliance with regulatory requirements.
- Local operation of small community fire services using volunteers is particularly challenging in terms of time, expectations, and expertise.
- There is a developing deep-seated public reluctance toward increased regulation, and with fire services specifically. This is exacerbated by an elevated level of entitlement present with regard to citizen expectations for service levels across Yukon.
- The FMO and YG are frequently accused of imposing excessive regulation and demonstrating a continuing lack of appreciation for local volunteers.

### Why is a Fire Department valuable?

Firefighters play a special role in most communities; especially so in small ones. Firehalls themselves are often a community gathering place. Membership as a firefighter is frequently seen as one of the highest levels of community volunteerism and firefighters are generally regarded with much respect and admiration. However, these plaudits often do not adequately reflect the value of a fire service to the community, especially a small one with volunteer firefighters (see Appendix 5). A few unique aspects of the volunteer fire service are:

- Fire and related services demand specialized training, equipment, and planning.
- If a small fire is not managed promptly and effectively, it can quickly spread.
- Having physically capable, qualified, and trained firefighters, as well as the equipment and apparatus they need, can reduce property loss, and prevent human suffering.

- A volunteer firefighter typically devotes considerable time, and endures hardship on their personal life, in their preparing to act and serve in the community. They take personal risk while asking for little in return.
- Over time, firefighters, through their service, their example, and fire safety education messaging, make the community and its residents safer.

### **Why is a Fire Service Review important?**

Rural VFDs and volunteer firefighters should be commended for the time they provide to the community. They receive minimal, if any, compensation and often operate on strength of community spirit alone. It is relatively recent that the efficiency and effectiveness of volunteer fire services are being examined by governments. However, the unfortunate truth is that some citizens, fire services, and their leaders, have developed entitlement attitudes beyond what the community or government can, or is willing to, support.

Authorities Having Jurisdiction (AHJ) have many responsibilities and legislative requirements to meet, and often these can be at odds with the desires and capabilities of local VFDs and community volunteers. It is important to frequently “check-in” and review the relationship between an AHJ and its VFD regardless of service delivery model.

Firefighters are the single most important asset of a fire service and their organization and management must continually place that recognition at the forefront while simultaneously balancing the critical safety and health obligations.

A fire service review is a comprehensive document detailing the strengths, challenges, vision, strategies, recommendations, and associated action plans for a jurisdiction or fire department. It generates approaches for rationalizing changes or evolution to budget, administration, governance, operations, and resources.

A fire service review begins with assessment of governance including authority, legislation, autonomy, records management, operational capabilities, regulatory compliance, as well as occupational health and safety. Analysis should be undertaken utilizing interviews, document review, objective assessment of performance and function, and appropriate comparison with other similar jurisdictions.

To ensure compliance with required legislation, and to close any performance gaps, a review must prepare a comprehensive set of recommendations directed at both the fire department as well as the governing jurisdiction involved.

Fiscal management and budget allocations need to appropriately reflect the necessary governance, operational needs, and the corporate/legislative compliance requirements expected. Political, fire service, and community expectations may all differ, so the objective rationalization of budget and resources through business case development is critical.

## What is a volunteer fire department?

A **fire department** is defined in multiple reference documents as:

**fire department (noun) · fire departments (plural noun)**

1. the department of a local or municipal authority in charge of preventing and fighting fires.  
*Oxford Dictionary – online*

**fire department**

1: an organization for preventing or extinguishing fires especially: a government division (as in a municipality) having these duties. *Merriam-Webster Dictionary - online*

**Fire Department** means a municipal fire department, public safety department, or public or private organization, such as a fire association, fire district, fire company or fire corporation, organized or created for the purpose of extinguishing fires and preventing fire hazards.  
*Lawinsider.com*

NFPA 1720<sup>4</sup>, Part 3.3.16 **Fire Department**. An organization providing rescue, fire suppression, emergency medical services and related activities to the public. *NFPA 1720 Standard for the Organization and Deployment ... to the Public by Volunteer Fire Departments*

A **volunteer fire department** is defined as:

NFPA 1720, Part 3.3.15.2 **Volunteer Fire Department**. A fire department having volunteer emergency service personnel comprising 85 percent or greater of its department membership.

By definition, every unincorporated community and municipal “fire service” in Yukon, with the exception of the City of Whitehorse, is a volunteer fire department regardless of the level of service, number of members, or resources present. Further, it is well stated that prevention activities must be a primary function of every fire department.

Why do these definitions matter and what is the relevance to this review? As in many cases where a review has been undertaken of small fire services, there is conflict present over the definition of a fire department, what is required to be one, and how it shall be operated locally. This review will address these questions and will focus on what we, as industry professionals, believe to be an appropriate and viable expectation in Yukon.

## There is a lot to be proud of with the YFS volunteer fire departments

Volunteer fire services throughout the world are unique organizations that have existed for over a century with minor change. The basic premise of providing fire protection and other emergency services to a local community utilizing a low cost and generally effective organization is laudable. However, creation and continued operation of volunteer fire services comes with many challenges (Figure A) that stress the ability of the department to remain functional.

It is quite remarkable that the numerous VFDs within the Yukon, both in municipal and unincorporated areas, have been able to provide the services they do given the population limitations

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<sup>4</sup> 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, National Fire Protection Association, USA

many have. Every firefighter, past and present, is to be commended for their dedication, ingenuity, and perseverance. The fact they strive toward providing the best service possible to their community is a testament to their selflessness. The firefighters clearly take pride in the services they provide and the work they perform. Despite limitations, volunteer firefighters continue to treat the organization with respect and their customers with dignity.

Figure A. Organizational Challenges to volunteer fire services



## REVIEW PROCESS

Both the environmental scan and engagement process included personal interviews and on-line surveys. The Environmental Scan included research into practices within Yukon, as well as fire services outside Yukon (across Canada and international). The Engagement Process was completed through a series of interviews with Yukon Government staff, community representatives, fire service representatives, allied agencies, regulators, and numerous other stakeholders. In total almost 100 individuals were interviewed. The review encompassed a detailed analysis of documentation, business operations and administration, and governance processes. Through these three methods of review, identification of opportunities and principal challenges are identified, and potential solutions and recommendations have been generated.

## ENVIRONMENTAL SCAN

The Yukon is unique in all of Canada with FMO involvement at the operations level for local VFDs. Nowhere else in Canada does a Fire Marshal or Fire Commissioner provide the operational leadership and support that local communities receive in Yukon<sup>5</sup>. The leadership of Yukon Government (YG), both past and present, must recognize that they are fortunate to have many dedicated and ambitious leaders and organizations involved in delivery of fire protection services. The VFDs are engaged and want to represent their respective communities and the Yukon. Each person interviewed provided prompt, thoughtful, and candid answers to every question posed, even if it presented challenges to their position or ideals. Everyone recognized that their needs may be motivated locally and that there may be conflict with meeting current regulatory expectations. All expressed a willingness to work hard to achieve realistic and effective goals. Each respondent's highest priority was service delivery to their community; well above personal safety requirements.

The YG, the YFS, the volunteers, local citizens, and other stakeholders all demonstrated professionalism and passion toward their roles and communities and have much to offer toward establishing and maintaining effective volunteer-based fire services. Many viewpoints are disparate and/or conflicting yet the focal points are obvious. (see the WordCloud diagram in Appendix 14).

### Legislation impacting fire services in Yukon

Unlike police and emergency medical services, fire departments are a discretionary<sup>6</sup> community service, with no legislated requirement to exist in any manner whatsoever. Fortunately, most local government and many community association entities create and operate fire departments in the interest of public and community safety. Typically, across Canada, fire departments exercise authority granted under local bylaw or policy associated to provincial or territorial legislation. These regulations define a fire departments service level and jurisdiction. A fire department has no authority to respond to, or act at, an incident outside their defined service area unless specific instructions exist describing that capability. Attention must be taken to ensure that fire departments are provided with a full range of authority to prevent fires and respond effectively to incidents within their service area.

In Yukon, the system is unique. For the eight established municipalities, the process described above applies. For the unincorporated community VFDs, however, the process is different. In Yukon, once a local community association determines that it would like local fire protection, they lobby the FMO for authority to constitute a local volunteer fire department. The FMO evaluates a set of criteria based upon risk in the community, as well as its ability to find, train, and then maintain a volunteer membership. If authority is granted, the FMO will supply resources, administration, training, logistics, and finances to operate the fire department. The local community's sole responsibility is to identify and maintain a volunteer firefighting force. There is no local taxation, procurement, asset management, or other administrative function expected or performed. All regulations under which these unincorporated VFDs operate are provided and managed by the FMO and YG. There are no

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<sup>5</sup> See Questions 6 & 9 of Appendix 8 – The single response for operations and resources represents the Yukon FMO

<sup>6</sup> Discretionary services are not required by legislation but may have legislation directing their organization and action if they are created.



local ordinances, bylaws, or policies for unincorporated area VFDs. This effectively means that the “local” VFD is, in fact, only a single part (or station) in the greater Yukon fire service under the FMO.

Regardless of the organizational or governance model, or the services offered, a series of significant and prescriptive regulatory and legislative requirements must be met to provide fire services. Figure B illustrates the various legislative, regulatory and performance assessment frameworks within which a fire department must operate. The YG, and all communities having made the decision to provide local fire protection, are thus obligated to comply with the requirements.

The many comprehensive and diverse compliance requirements placed upon fire service operations and performance are intended to:

- Protect and improve firefighter safety,
- Ensure that fire services can meet community needs,
- Increase the safety of fire service “customers,” and
- Improve fire service performance.

Figure B. Legislative compliance challenges for volunteer fire services



All 16 YFS VFDs are required to adopt FMO policies and procedures. Unlike municipal fire departments, no local government bylaws apply for the YFS.



There is currently no standard range of services defined for a fire department. A department is authorized to provide only those services which are stipulated in its service establishment<sup>7</sup> document. Since fire departments typically respond to a range of incident types – such as fires, vehicle accidents, spills, and rescues - it is important that any empowering document accurately identify the specific services provided and not be unwittingly too restrictive or broad in scope.

### Relevant Federal Legislation

#### CRIMINAL CODE OF CANADA SECTION 217.1

Section 217.1 of the Criminal Code, also known as Bill C-45 or the “Westray Bill”, became law on March 31, 2004. Bill C-45 (2003) established new legal duties for workplace health and safety and imposed serious penalties for violations that result in injury or death. The Bill provided new rules for attributing criminal liability to organizations, including corporations, their representatives and those who direct the work of others. The Criminal Code Section reads as follows:

“**217.1** Every one who undertakes, or has the authority, to direct how another person does work or performs a task is under a legal duty to take reasonable steps to prevent bodily harm to that person, or any other person, arising from that work or task.”

The amendment also added Sections 22.1 and 22.2 to the *Criminal Code* imposing criminal liability on organizations and its representatives for negligence (22.1) and other offences (22.2).

The main provisions of Section 217.1 are as follows:

- Creates rules for establishing criminal liability to organizations for the acts of their representatives.
- Establishes a legal duty for all persons "directing the work of others" to take reasonable steps to ensure the safety of workers and the public.
- Sets out the factors that courts must consider when sentencing an organization.
- Provides optional conditions of probation that a court may impose on an organization.

To date, there are eight cases where individuals were charged under the new provisions in the *Criminal Code*, including fire service managers in Yellowknife, NWT. These provisions of the *Criminal Code* affect all organizations and individuals who direct the work of others, anywhere in Canada.

This piece of legislation should serve as a reminder, and warning, to all fire service administrators and government officials that all expectations must be met with appropriate training and oversight lest severe liability and/or penalty result from an incident.

### Relevant Yukon Legislation

There are several critical pieces of territorial legislation that dictate how and why fire services perform specific actions.

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<sup>7</sup> Fire departments should have a legal document describing the services they are empowered to provide

*MUNICIPAL ACT (C.O 1973/398)*

The *Municipal Act* allows for the creation and management of local or regional areas within the territory. It describes the powers transferred from the territory to the incorporated community, and the authorities that local government must or may, at their discretion, initiate. One of the authorities conferred is the discretion to constitute and manage a local fire department.

*SOCIETIES ACT (O.I.C. 1988/124)*

The *Societies Act* allows for the creation of an organization for numerous lawful purposes including, potentially, a local fire department. The *Societies Act* describes the requirements and powers of the Society Board and stipulates that the Society may not carry-on activities restricted by its bylaws and policies or contrary to its stated purpose. The Society Board is responsible for the establishment and compliance with said bylaws and policies.

*YUKON FIRE PREVENTION ACT (RSY 2002, c.89)*

The *Yukon Fire Prevention Act* identifies the services and actions to be undertaken by a governing body related to specific aspects of local fire safety and protection. The YG through the FMO, provides a traditional range of services such as guidance and advice, particularly related to education and prevention, as well as fire investigations, which are similar to other Canadian jurisdictions. Uniquely in Canada, YG also funds, administers, resources, and fully supports local fire service delivery in unincorporated communities.

Through sections 6(1-4) of the *Yukon Fire Prevention Act* local power and authority is delegated to the Local Assistant to the Fire Marshal. The Local Assistant for unincorporated communities is a role not typically well undertaken in Yukon. It is likely that the authority and appointment of such Local Assistants is unclear given the current legislation, which does not specifically address unincorporated area fire departments. In the absence of a designated Local Assistant, the powers and authority are conferred upon a local RCMP member through Section 6(5).

*WORKERS COMPENSATION ACT (SY 2008, c.12)* and the *OCCUPATIONAL HEALTH AND SAFETY (OH&S) ACT (RSY 2002, c.159)*, plus associated REGULATIONS

All fire services must operate within the stringent safety requirements of the *Yukon Workers Compensation Act* and the *Occupational Health and Safety Act*. In addition to the numerous requirements within the two *Acts*, the OH&S Regulation Part 11 – Firefighting expressly identifies fire service-specific safe work requirements. Areas include firefighter protective clothing and equipment, equipment maintenance and testing, safety committees, documentation, and safe work procedures. Full compliance with all required components of both the *Acts* and the Regulation is expected given the risk inherent within firefighting operations. The *Acts* and Regulation apply without exception to all structural firefighters, career, or volunteer, as well as all fire departments and Authorities Having Jurisdiction (AHJ's).

*MOTOR VEHICLES ACT (RSY 202, c.153)*

Fire services must operate within the requirements of the *Motor Vehicles Act*, and its Regulations, and all drivers of emergency vehicles must be educated on, and exercise the responsibilities identified within the *Act* and Regulation. Driver licensing and training, vehicle pre- and post-trip inspections, commercial vehicle inspections, vehicle maintenance documentation, and apparatus design and function must all meet the legislative requirements regardless of the department governance type or

staffing model. Currently, all drivers of large fire apparatus over 11,000kg must carry a Class 3 drivers' license. In other jurisdictions, such as British Columbia, these same emergency vehicles can be driven by operators with a Class 5 with Airbrake Endorsement license. This option is not currently available in Yukon.

#### *EMPLOYMENT STANDARDS ACT (RSY 202, c.72)*

The Yukon *Employment Standards Act* does not have application to volunteer firefighters engaged by unincorporated community VFDs under the authority of the Yukon Fire Marshal. Volunteer firefighters in these departments, despite acknowledgement as "workers" under the other legislation, are exempt from application under the *Employment Standards Act* through Section 2(2) which states that: (2) *This Act does not apply to the Government of the Yukon or to the employees of the Government of the Yukon. S.Y. 2002, c.72, s.2.* By way of reimbursement and "hiring" by the FMO, all unincorporated VFD volunteers are considered YG workers or employees (as per the OH&S Act).

Firefighters performing for municipal fire departments are covered under the *Employment Standards Act* as they are not specifically excluded like YFS volunteers.

#### **Fire Marshal's Office Policies and Standard Operating Procedures (SOPs)**

The FMO requires adoption and adherence by each of its VFDs to the YFS Operational Policies and Standard Operating Procedures (SOPs). Adherence to both policies and SOPs is required to ensure legislative compliance for all operations, training, safety programs, and some administration.

The FMO does not have a complete set of Policies nor SOPs currently in place when compared to other fire service jurisdictions or OH&S requirements. Some FMO SOPs are actually in conflict with others, or do not fully address applicable legislation or regulations. Each fire department has been provided with official copies of all current policies and SOPs. There are apparently a small number of SOPs written and maintained by individual VFDs that the FMO is aware of and has approved.

#### **Other Standards, Regulations, direction or requirements**

##### **BYLAWS**

Local bylaws are applicable to incorporated municipalities only. The Fire Marshal's Office does not currently have legislated authority over any municipal fire services related to fire suppression operations, though there is a significant amount of support provided to some municipality fire departments. Thus, bylaws are not currently a component of fire service administration or governance under the Fire Marshal's authority.

##### **FIRE UNDERWRITERS SURVEY OF CANADA (FUS)**

The Fire Underwriters Survey of Canada (FUS) is a national commercial organization administered by Opta Information Intelligence. It has operated under a variety of names in the past (including SCM Risk Management Services Inc.), but in each instance, the organization has remained heavily influenced and supported by the insurance industry.

A description of the FUS organization and the issuance of fire protection classifications for jurisdictions can be found at their website <https://fireunderwriters.ca/Downloads>. The following paragraphs summarize those FUS on-line materials.

*Fire insurance grades are one of the most influential aspects of fire protection and prevention in Canada*

*but they are also one of the most misunderstood. Fire insurance grades are a measure of the capacity of the community to provide an effective level of response to structure fires (and conflagrations) that can be expected to occur. Numerous variables are considered in determining the fire insurance grades but the factors are generally broken down into the five broad categories: risk level; fire department capacities; water supplies; fire safety control (including prevention and education); and emergency communications. Fire insurance grades are determined by quantitatively measuring the level of fire risk (or fire potential) in the built environment, using this benchmark to determine the maximum credible effective response characteristics, then measuring all components of fire protection capacity against this benchmark.*

*Insurance companies may use fire insurance grades to determine appropriate property insurance rates, although each insurance company uses its own specific criteria and calculation method to determine appropriate premiums for insurance coverage. Other influential factors outside of fire insurance grades (such as loss experience in a specific geographic area or within a specific type of business such as industrial) are also considered. As each insurance company uses its own formula to set property insurance rates, it is not effectively possible to specifically quantify the difference in property insurance rates from one jurisdiction or department to another.*

*Fire insurance grades allow Canadian communities to improve their fire protection levels incrementally in a measured fashion that can provide cost savings to property owners through reduced insurance premiums. Although these cost savings may not entirely offset the fire protection costs, this is one of the few government service areas that does result in a return on investment.*

The comprehensive requirements for Fire Underwriters Survey compliance to the Dwelling Protection Grade classification of volunteer fire departments is illustrated in Appendix 6. It should be stated that there is little evidence to support a fire protection grade above the basic minimum for any FMO VFD. The realities of the training, resourcing, response times, prevention activities, and water supply simply do not achieve a higher level.

However, local insurance agencies in Yukon are not obligated to reference the FUS grades, if any exist, for a community. In many cases throughout Canada, and likely Yukon, local insurance providers/agents/adjustors do provide fire insurance reductions based solely upon local factors or their local experience. Therefore, the cost and coverage of fire insurance can vary significantly from jurisdiction to jurisdiction, and community to community. Comparison and standardization of insurance rates received by homeowners throughout Yukon was not possible for this review and is likely quite variable.

#### NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARDS

The National Fire Protection Association (NFPA) is “an international non-profit organization devoted to eliminating death, injury, property and economic loss due to fire, electrical and related hazards. As of 2018, the NFPA claims to have 50,000 members and 9,000 volunteers working with the organization through its 250 technical committees.” The NFPA Standards “are developed through a consensus standards development process approved by the American National Standards Institute.” The NFPA Standards have no power or authority on their own and serve only as reference materials that an Authority Having Jurisdiction may adopt or apply, in whole or in part, at their own discretion.

Compliance with NFPA Standards is not required in any jurisdiction, including Yukon, unless specifically referenced in the appropriate jurisdictional legislation<sup>8</sup>. For example, the Yukon OH&S Regulation references several NFPA Standards related to training, and firefighting equipment and its use. A reference may be to the entire Standard, or only a portion of it, as required by the jurisdiction.

Once a specific NFPA Standard is referenced in a jurisdiction it is important to recognize that adherence to further standards may be necessary. For example, the reference to NFPA 1001 in the Yukon OH&S Regulation requires by association, recognition of, and adherence to, NFPA Standards 1500, 1582, and 1583. Failure to recognize and understand the relationships between NFPA Standards can lead to confusion and impact on fire service expectations that may be unintended.

## ENGAGEMENT METHODOLOGY

### Surveys

Response Specialties utilized multiple on-line surveys as a means of gathering research data and opinion related to fire services in Yukon. Each survey contained a comprehensive list of questions related to the focus group being targeted in the survey. Appendices 7 & 8 provide the questions and responses to the Community Engagement and Canadian FMO/OFC surveys.

The Community Engagement survey (Appendix 7) was generated and distributed to unincorporated communities in Yukon through the YG Community Services Advisors and Communications staff, as well as the FMO, the Association of Yukon Fire Chiefs, and other community avenues. Participation in this survey was requested from any resident of an unincorporated area where a VFD is either currently active or was historically. The survey asked that respondents identify themselves as associated with one of the 16 identified VFDs under FMO governance. The majority (67%) of respondents were long-term (10+ yrs) residents. There were 159 responses from 11 of the 16 communities. This is considered to be a reasonable response rate given the nature of the subject matter and existing political viewpoints in the communities involved. One community provided a large number of responses, and several had only three or less. No responses were received from Pelly Crossing, Ross River, Burwash Landing, Beaver Creek, or Old Crow. Overall, the responses were fairly equitably split from a broad cross-section of citizens including those associated with the fire department, those not identifying any association at all, and those with a personal interest in the fire protection of their community<sup>9</sup>.

A second survey was generated and distributed to Fire Marshal's and Fire Commissioners for all Provinces and Territories (Appendix 8). The intent was to determine operational practice for Yukon counterparts in other jurisdictions of Canada while simultaneously identifying any changes in those operations as compared to the comprehensive report prepared for the Province of Nova Scotia in 2013 entitled, *"Fire and Emergency Services Scan of Canadian Provinces and Territories"*. Minimal changes were found to have occurred and did not reveal any change in the extent to which they provide, or actually do not provide, operational level support<sup>10</sup>. Response was excellent with only the

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<sup>8</sup> Many jurisdictions and fire departments do voluntarily incorporate NFPA Standards into their operation.

<sup>9</sup> See Questions 3 & 12 of Appendix 7

<sup>10</sup> See Question 14 of Appendix 8. FMO is lone jurisdiction to fully provide Admin, Finance and Operations support

Province of Quebec not responding. The survey requested information related to governance models, Indigenous engagement, roles of the office, legislative authority, position of the office within government, establishment and maintenance of standards, support and oversight of local fire services, interaction with other agencies, and staffing of the office. It was quickly and conclusively demonstrated that the Yukon FMO is unique in both its scope of mandate, and the responsibilities assigned, especially related to operational service delivery.

The third survey was generated and distributed to international fire services in countries known to have similar rural fire protection needs and systems. Comparable questions were asked as with the Canadian representative survey, but additional requests were made for comments on alternate training standards used, and service amalgamations. Out of the five jurisdictions receiving survey completion requests, only two responded; the Fire Marshal for the State of Alaska, and the Department of Fire and Emergency Services for Western Australia. In both of these cases further telephone conversations occurred to discuss and research answers provided, and incorporate ideas into the report recommendations (e.g., Fire Protection in a Box – FPIB).

## Interviews

Response Specialties engaged with approximately 95 unique individuals via Zoom teleconference or direct phone conversation. This was the initial method of direct engagement as a result of the restrictions imposed upon travel and in-person contact resulting from the COVID-19 pandemic. Following the lifting of COVID-19 travel restrictions within Yukon, two 5-day in-person visits were performed by Response Specialties to numerous communities. Overall, participants were very engaged, forthright, and comfortable regardless of the interview format. Interviews were conducted with individuals representing the following:

### Internal/Yukon Government:

- Aboriginal Relations (2)
- YG- Highways and Public Works (2)
- Deputy Minister, ADMs, and Senior Advisors (6)
- Fire Marshal's Office - FMO (6)
- Emergency Medical Services - EMS (1)
- Emergency Measures Organization - EMO (1)
- Wildland Fire Management - WFM (2)
- Community Services (CS)-Communications (3)
- CS-Finance (3)
- CS-Community Affairs (1)
- CS-Risk Management (1)
- CS-Human Resources (3)
- CS-Policy Analyst (1)

### External/Other Stakeholders:

- Indigenous Services Canada (ISC) / Crown-Indigenous Relations and Northern Affairs Canada (CIRNA) (1)
- Yukon Fire Services – unincorporated area volunteer fire department representatives (10)
- Yukon unincorporate community LAC representatives (4)



- First Nation representatives (3)
- Yukon municipal fire services (6)
- Yukon municipal Chief Administrative Officers (CAO's) (4)
- Municipal Elected Officials (4)
- Association of Yukon Communities (2)
- Community Citizens at large (20)
- Yukon Workers Compensation and Occupational Health & Safety (3)
- Association of Yukon Fire Chiefs (2)
- Delta-1 Yukon Emergency Dispatch Contract Provider (2)
- Griffin Emergency Vehicle Service – Private Contractor to FMO (1)
- Yukon Insurance Industry Representative (1)
- Fire Underwriters Survey of Canada (1)
- Corporate businesses related to fire protection in Yukon (1)

Unfortunately, there were a number of groups who did not engage fully, or at all, with the review process despite repeated requests through multiple channels.

## FINDINGS AND ANALYSIS

### Regulatory Compliance

Each piece of legislation described previously in this report has compliance requirements directed at fire service delivery. Each specifically identifies expectations related to the legislative framework involved.

The breadth of requirements is daunting, and compliance can be a significant challenge for even the largest and most sophisticated of organizations. However, ongoing compliance is nonetheless required, regardless of organizational size or capacity, to safely and effectively perform the fire protection duties and responsibilities the public expects.

While the FMO has documentation respecting the requirements for regulatory compliance by the entire YFS, review findings reveal a lack of meaningful enforcement. The following is a list of significant identified lapses in legislative or regulatory compliance within the FMO and the YFS:

- FMO training, fitness and medical requirements are inconsistent with the OH&S Regulation
- FMO office non-compliant with some YG fiscal management and procurement practices
- Numerous VFDs not meeting established standards for training
- Numerous VFDs not meeting established requirements for number of personnel
- Local Assistants to the Fire Marshal not appointed or functioning in many communities
- Several non-compliance items related to OH&S at VFD level
- General reporting and records management practices not meeting YG standards
- FMO not meeting mandate for provision of education and prevention programming
- FMO Policy and SOP conflicts

Appendix 9 provides an example list of major legislative compliance items applicable within Yukon.

**Recommendation 1:** That the FMO research and maintain a comprehensive list of all legislatively required compliance items, including for individual VFDs, and actively enforce regular compliance.

Current FMO practice related to Standard Operating Procedures is not fully in alignment with Yukon OH&S conventions. Specifically, Yukon OH&S, like other OH&S organizations in Canada, identifies specific criteria for terminology and its use. For example, Yukon OH&S separately defines a Standard Operating Procedure (SOP) versus a Standard Operational Guideline (SOG). In OH&S they are separate and distinct in meaning and application, but in the FMO only one term (SOP) is used despite criteria and need for both existing<sup>11</sup>.

**Recommendation 2:** That the FMO engage with Yukon OH&S, and implement consistent application of both Standard Operating Procedure (SOP) and Standard Operational Guideline (SOG) terminologies that are consistent with established practices at Yukon OH&S.

**Recommendation 3:** That the FMO establish an annual review and amendment schedule to be applied to all internal policies and standard operating procedures. Further, that a specific individual within the office, preferably with a background in technical writing and document research, be assigned the role of leading these regular reviews.

**Recommendation 4:** That all future FMO policies and SOPs be annually reviewed by, and final copies written by, the identified technical writer within the office. No document shall be implemented without content and format review, as well as sign-off by this individual.

Penalties for non-compliance with established OH&S legislation or regulation can be significant. A recent public sector penalty, though not in Yukon, administered by WorkSafeBC of \$327,000 was brought against the City of Fort St. John for violations related to exposure control and respiratory protection including mask fit-testing. OH&S violation penalties are typically based upon the nature of violation, any repeat offense history, and payroll of the organization. Offenses related to higher risk occupations, such as firefighting, may also invoke penalty multipliers.

Compliance violations that result in injury or death could also be subject to Yukon Coroner's Service Recommendations or Criminal Code of Canada charges under Section 217.1 (Bill C-45).

The FMO has a legislated mandate to oversee and govern Yukon fire services. It was observed that strategically the office was not fully meeting this mandate. Extensive effort and commitment were made by the office in managing tactical-level issues at the expense of strategic thinking and organizational goal setting. There was little evidence of dedicated time or effort in developing programming that will guide the FMO forward in the areas of inspections and prevention that are legislatively required. Rather, the majority of time was observed to be spent on "putting out little fires" arising from VFD concerns and questions. Specifically, the FMO, and its Protective Services leadership, should engage in a formal process to redefine the FMO to reflect the legislation and the direction of YG.

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<sup>11</sup> Most fire services extensively utilize Standard Operational Guidelines to describe operational functions



**Recommendation 5:** That the FMO, under the guidance of Protective Services leadership, undertake a strategic planning process to define the future of the FMO and its mandate. This must include establishing and defining a Vision, Mission, Goals and Objectives for all areas of responsibility.

## Governance

It is particularly important to identify and understand how unique the Yukon fire service environment is in comparison to other jurisdictions. The existence and maintenance of local VFDs in small remote communities of fewer than 200-300 persons is unusual when compared to other areas of Canada. For example, in the Northwest Territories (NWT), there are zero functional fire departments outside of established municipalities. In BC, any community may form, support and finance any fire protection themselves, either through local government or Society, with the only financial support coming in the form of taxation, infrequent grant opportunities, or fundraising efforts. In BC, and other parts of Canada, Indigenous communities have established their own fire services, some of which contract protection to outside communities. In Yukon, the FMO “risk manages” several small VFDs that, should they be located in any other jurisdiction, would have little, if any, chance of even existing as they do in Yukon. In all jurisdictions, training standards<sup>12</sup> for firefighters are established and enforced for all fire services, regardless of size.

The Yukon has embraced a volunteer fire department model for virtually all communities, outside of the City of Whitehorse. As a large city, population center for the Yukon with approximately 25,000, and the seat of government, Whitehorse is very distinctive and is the only career fire service in Yukon. In fact, no other Yukon municipality or community has a population over 2300 (according to the 2019 Yukon Statistical Review). Watson Lake and Dawson City have a paid Fire Chief, but all other staff are volunteers. The volunteer-based fire department model is necessary in terms of population and economic viability, but it cannot be expected to thrive in every community.

Through legislation and policy, YG created the YFS, assigning each community VFD a designated service area. Each community is represented by a Local Advisory Committee (LAC) or Community Association<sup>13</sup>. The overall operation of the VFD is managed by the FMO with only local firefighter recruitment and incident response being the responsibility of the local Fire Chief.

The majority of Community Engagement survey respondents are aware of the FMO’s level of involvement and support it<sup>14</sup>, and 95% of respondents felt that a local fully operational fire department was either essential, or very important<sup>15</sup>. The majority of respondents stated that they would either consider or accept amalgamation of the YFS with EMS or WFM<sup>16</sup>, and a further 88% stated they would at least consider raising taxation to maintain fire services in their community<sup>17</sup>.

Importantly, the VFDs do not appear on YG’s FMO organizational chart because they do not directly report as an “employee.” This is an unfortunate and incorrect interpretation of the organization and results in an inaccurate representation of FMO reporting lines. For example, each department should

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<sup>12</sup> Usually established through either specific OH&S or fire service legislation

<sup>13</sup> In a municipality this role would be undertaken by the municipal government

<sup>14</sup> See Questions 6 & 7 of Appendix 7.

<sup>15</sup> See Question 11 of Appendix 7.

<sup>16</sup> See Question 16 of Appendix 7.

<sup>17</sup> See Question 17 of Appendix 7.

address their own human resources function in a rudimentary manner through the Fire Chief or designate, and YG should not be involved with volunteer personnel matters, including Fire Chief selection. In practice, however, the FMO regularly becomes involved, often through necessity, in human resource matters at the department level. Usually, though not exclusively, this arises through an inability or unwillingness of the Fire Chief to manage the problem.

Traditionally, fire service incident response is typically described as either “core” or “discretionary.” Core services address the legislated mandate of the AHJ for the fire department. For the Yukon, the core services are established by legislation under the *Fire Prevention Act*. At present, there is no requirement for a local VFD or jurisdiction to declare a formal Level of Service<sup>7</sup> which indicates to the citizens the level of fire department performance that can be expected at an incident. Within Yukon, and while there are established standards related to firefighter training, the existence and performance of a local VFD is highly variable depending on community.

**Recommendation 6:** That YG, through the FMO, audit and enforce the requirement for a fire department to operate, train and resource to a recognized level of service at all times.

### YFS Fire Chief Succession Planning

Many Fire Chiefs support the centralized management of the YFS service and understand the current reporting structure. Several chiefs identified that FMO staff are not available enough and appear over-worked. Most chiefs and community representatives reported a good working relationship with the FMO, though some did identify relationship challenges with specific individuals within the FMO, both past and present.

In conversations with chiefs, it was readily apparent that no succession planning program, or chief training program, exists. The current challenges identified by experienced chiefs all centered around the perception of an increasing time burden for administration, increased overall responsibility, and increased liability. Many chiefs do not come from government or business backgrounds and can therefore be challenged with the administrative requirements of the role. Some chiefs also found themselves in the role with little operational experience or fire command training and, as a result, decision-making at incident scenes can be a concern. It is apparent that some Fire Chiefs rely heavily upon the FMO for mentorship and direction, while others appear to be more capable or less interested in FMO involvement. The heavy reliance on FMO staff contributes significantly to the FMO workload challenges being experienced.

The FMO needs to acknowledge, and strategically plan for, the issues of insufficient training and competencies of local fire service leaders. Development of succession planning steps that include education, mentorship, and training are important, but may be unrealistic for some due to high turnover rates and lack of interest. Regardless, whether the individual selected as chief is ambitious or ambivalent, they all require specific skills and training.

Most Fire Chiefs are in the role not because they personally have those ambitions, but because someone in the community needs to do it and they were at least willing. A number of them have limited fire service experience. Fire Chief positions are elected<sup>18</sup> within the community VFD and then

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<sup>18</sup> YFS local Fire Chiefs are not appointed by the FMO or YG

assume a reporting duty to the FMO. The review engagement process found that a high percentage of Fire Chiefs are disinterested in the expanding administrative aspects of the role and many stated that they would in fact resign should more burden be placed upon them in that regard. As a result of this absence of governance engagement at the local level many YFS, and even municipal, VFDs are struggling to remain operational due to a shortfall in volunteer recruitment and retention. Several chiefs however, indicated that they prefer the autonomous role as Fire Chief and being responsible for operational and administrative decision-making. As a result, their VFDs appear to be performing well.

Effectively, the FMO performs at least 80-90% of the required administration, logistics, and support for most YFS VFDs. Further, the FMO is also providing substantial resource support and administration to many municipal VFDs; something that is not part of the FMO's legislated mandate.

**Recommendation 7:** That the FMO confirm its managerial reporting lines and organizational structure to all VFD Fire Chiefs and senior officers.

### YFS Mentorship, Direction and Guidance

Historically, the FMO leadership has allowed some autonomy to be exercised by each fire department and Fire Chief. The FMO provides financial, logistical, training programs, and administrative support, as well as resources, but leaves operational response, skill training, and recruiting to the VFD and its Fire Chief.

Current leadership within YG has identified concerns that, in practice, the FMO may in fact be negligent in performing its AHJ role in a number of areas. Others in YG also had differing viewpoints of the working relationship between the FMO, YG and the VFDs. The FMO leadership is not satisfied with its internal performance capabilities, as they acknowledge that departments under their oversight do not meet the requirements of legislation or policy. For the YFS to operate as a cohesive group it needs to be organized and managed as a cohesive group. Cohesion is currently not a strong component of the overall service and communication efforts must be enhanced both internally and externally.

**Recommendation 8:** That the FMO transition to a more frequent face-to-face communication model with VFD chiefs and departments where staff visit each department one to two times annually.

There is no active response or timely consultation by FMO staff with incident commanders and Fire Chiefs at high profile or high-risk scenes. FMO mentorship and guidance is an essential support mechanism in governance given the level of inexperience, training, and limited response capabilities of the majority of VFDs.

In other jurisdictions uniformed duty officers<sup>19</sup> respond alongside local VFDs to provide guidance, oversight, and mentorship or they are immediately available for consult and direction via radio or phone. They perform these roles on a 24/7/365 rotational basis using an appropriate emergency vehicle dedicated to the duty officer, as required. At least one FMO DFM does occasionally respond, often through self-dispatch as they become aware of a serious incident. This in itself is problematic, and there is a need for a defined role for specific incident types being required of all FMO staff. Each

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<sup>19</sup> Senior representatives of the governing body who are responsible for fire department oversight

fire marshal has current or historic experience in firefighting; some more extensive than others. In most cases their training and experience is likely to exceed that of responding firefighters, especially in distant communities. Availability by phone, radio, or direct response when required, should occur for significant incidents. The call volume Yukon-wide does not preclude this being effective nor will it become an unnecessary burden. Conversely, frequent active engagement with incidents will further enhance the offices capabilities to provide overall guidance and oversight, it will improve VFD relationship development, and it will improve the personal competencies of each fire marshal.

Further, and without prejudice, it was observed that some Fire Chiefs are significantly lacking in firefighting experience, operational command and control experience, and training. Globally, inadequacies in decision-making and on-scene incident action planning are widely recognized to be precipitating factors in most firefighter injuries and major fire losses. Providing experienced and well-trained support through consultation and mentorship, even if delayed or given remotely, can provide enhanced protection from risk and liability to the individual, the VFD and YG.

**Recommendation 9:** That the FMO establish a 24/7/365 Duty Officer rotational schedule that utilizes all fire marshals, regardless of rank, to provide immediate telephone/radio communication with responding crews, and/or scene response to high-profile or high-risk incidents throughout the Yukon. Further, that the on-duty officer be provided an appropriate emergency vehicle with which to respond promptly.

**Recommendation 10:** That the FMO require the duty officer be immediately notified by the fire dispatch provider upon identification of a serious incident. The criteria to identify such high-profile or high-risk incidents shall be created by the FMO, in consultation with its VFD Fire Chiefs and dispatch, and shall be documented in FMO policy.

## Performance Management

The FMO does not currently utilize performance management as a method of monitoring or improving services. There are no published or mandated Key Performance Indicators (KPI's) for either the FMO, or the YFS at large. Use of KPI's to audit and improve service is a well-established practice and should be implemented for such a large and dispersed organization as the YFS<sup>20</sup>. Fire services worldwide utilize KPI's extensively and usually similar benchmarks are used<sup>21</sup>. Examples include volunteer staff turn-out to incidents, response times, number of incidents (by type), number of firefighter injuries, number of civilian injuries/deaths, office complaint processing times, email response times, dispatch call processing times, and many others. Many examples exist and could be implemented within Yukon with minimal modification to the reporting software or dispatch technologies used. KPI outcomes could then be referenced for program effectiveness, internal processing audits, VFD member engagement, and service to the public generally. The use of KPI's must become an integral part of the FMO programming and local expertise needs to be established to manage it.

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<sup>20</sup> See Questions 25 & 26 of Appendix 8.

<sup>21</sup> Reference: Western Australia Department of Fire and Emergency Services – Rural Fire Division [KPIs.pdf](https://www.dfes.wa.gov.au/KPIs.pdf) ([dfes.wa.gov.au](https://www.dfes.wa.gov.au))

**Recommendation 11:** That the FMO, in conjunction with the fire dispatch provider and YG IT services, establish a list of KPI's and develop methodology to track, analyze, and utilize these measures to guide future decision-making and performance.

### Political Engagement

There is a subtle, and sometimes less than subtle, element of community political influence on the operations of the YFS. The FMO must develop effective strategies to pre-empt or resolve these political influence before impacts result. Virtually everyone interviewed stated that they “could pick up the phone and talk directly with politician whenever they wanted.” Representatives of many stakeholder groups stated that this reality of Yukon has altered fire service practice on a number of occasions.

Elected officials at all levels, regardless of jurisdictions, may lack clear understanding of the mechanics and capabilities of fire department functionality. Continued political engagement is may, in some cases, be placing YG in a position of liability. Examples exist such as the pattern of political desire to maintain fire services in communities that cannot properly sustain them with the result being understaffed departments that do not meet standards, and who may at some point respond inappropriately to an incident or have a severe injury or death to a firefighter. The lack of OH&S compliance related to firefighter safety and training is alarming in departments with few volunteers. They cannot be allowed or encouraged to continue operation when they are well below established requirements. In the event of serious incident, it is likely that YG will be held accountable for allowing these departments to continue operation.

**Recommendation 12:** That YG - Communications, with lead from the FMO, develop a relevant and respectful information package for dissemination to all new and tenured elected officials in Yukon. The information should include written, video PSA, and social media educational and speaking points.

### FMO Organization and Staffing

The FMO has a staff of six FTE's<sup>22</sup>. One position is currently split between two work-sharing individuals, for a total number of seven personnel. These seven individuals are charged with the operation of the FMO itself, as well as the functioning of the YFS. Figure C (next page) provides a branch organizational chart for the FMO and includes, unofficially, all Fire Chiefs.

### Internal FMO organizational priorities

Throughout the review, and in all conversations with FMO staff, we as consultants attempted to determine if a long-term branch vision existed. In virtually every conversation it was apparent that each office member performed their duties without a visionary purpose and none ever expressed the presence of a greater mission for the FMO. This focus on daily tactical tasks is undermining the true mandate of the FMO in legislation. It is also readily apparent as the root cause of internal malcontent within the FMO.

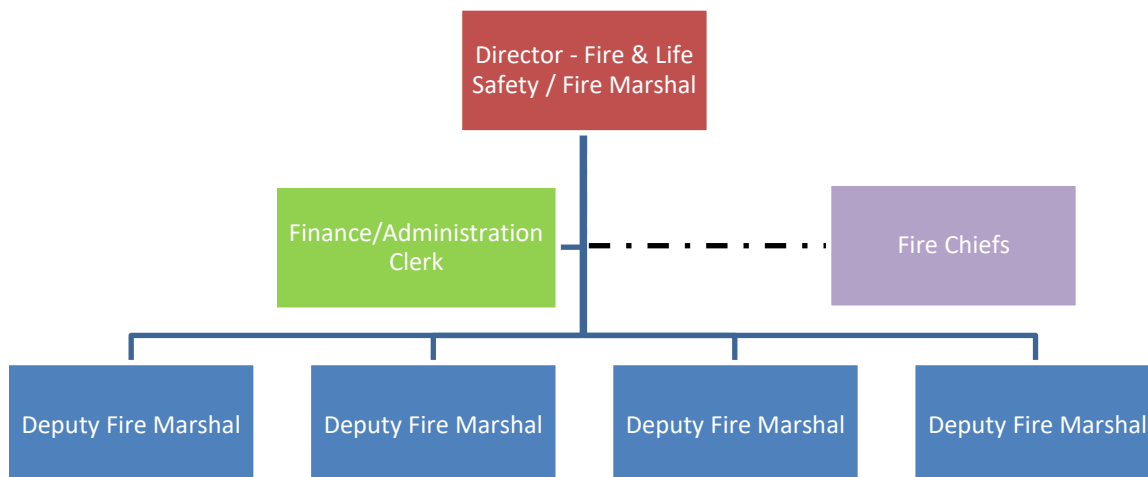
There is a legitimate and immediate need for mentorship in financial, risk, and policy management practice for the entire office. Most FMO staff, including the Fire Marshal, have primarily operational firefighting backgrounds. While there is merit in ensuring this vital skill set is well represented

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<sup>22</sup> FTE = Full time equivalent, or full-time employees

within the office, there is an obvious lack of other necessary organizational aptitudes. It is incumbent upon YG Protective Services to ensure that these challenges are identified and appropriately addressed.

Figure C: Current Fire Marshal's Office Organizational Structure



There is a legitimate and immediate need for mentorship in financial, risk, and policy management practice for the entire office. Most FMO staff, including the Fire Marshal, have primarily operational firefighting backgrounds. While there is merit in ensuring this vital skill set is well represented within the office, there is an obvious lack of other necessary organizational aptitudes. It is incumbent upon YG Protective Services to ensure that these challenges are identified and appropriately addressed.

**Recommendation 13:** That FMO hiring practices ensure that future employees be either hired with appropriate training in fiscal management, risk management, contracting, and procurement or, that they receive the necessary training immediately upon employment.

It should be a YG corporate priority that FMO staff be enrolled in, and complete, all appropriate management training to address concerns related to financial and risk management, policy development and implementation, and strategic planning. Further, the office must be mentored to improve awareness of such competencies and increase compliance. While the FMO appears to operate effectively related to operational matters, there are procedural and corporate liability concerns in other areas that must be addressed.

**Recommendation 14:** Increase FMO overall compliance with YG policy and procedure.

As the AHJ, the FMO is the responsible organization for provision of fire services in participating communities. This mandate results, as described above, in considerable time allocations from all FMO staff. As such, when FMO staffing levels fall, the resultant impacts on VFD operations can be substantial. It was observed during the review process that FMO staff were “seconded”<sup>23</sup> to COVID-19 and flooding emergency response duties not associated to fire protection. In the case of one DFM, the

<sup>23</sup> It is frequent practice in YG for FMO staff to be temporarily reassigned due to emergency situations



secondment lasted several months. During this same period other DFM's and the Fire Marshal himself had annual leave and other absences. The office was observed by the consultants to be obviously understaffed and unable to meet its legislated mandate during this time. Numerous requests from VFDs went unanswered or unfulfilled. This is unacceptable administratively, but it is especially troubling because should a major YFS incident have occurred in a community, the FMO would have been unable to properly support them or assume authority. There needs to be a minimum staffing level established for the FMO that reflects their mandate, regular responsibilities, secondments, workload management, leave time, and surge.

**Recommendation 15:** That the FMO establish a minimum staffing level of available FMO staff. Further, that this minimum staffing level be set at 3 (excluding the Clerk position).

### Finance/Administration Clerk

The FMO currently employs a single Finance/Administration Clerk. Despite a Job Description that is overwhelmingly directed toward finance and budget functions, the incumbent spends approximately 60-70% of her workweek performing unrelated general administration duties. Historically, the work of the current position was, at one point, performed by two separate individuals. This apparently ceased near the end of the previous Fire Marshal's tenure. The workload on this position performing both the finance and administration roles is substantial and often overwhelming. It needs support.

There is no internal capability to account for leave time, absenteeism, nor for any surge situations related to the Finance/Administration clerk position. This results in a backlog of work during any absence from her desk. This can further lead to increased workload on the Deputy Fire Marshal's.

The Clerk's office is located with the DFM's in the main FMO office area. She apparently has relatively little interaction with her peers in other branches or departments, likely due to isolation and the job shift away from financial aspects. This does not encourage personal or professional growth.

The incumbent stated, and her job description confirms, that she is delegated as a primary source of financial advice and management for the FMO. This is apparently an unusual expectation in YG for a position at her level. The Clerk does play a significant role in discussions related to FMO budget allocations, not simply an administrative one. However, she has no authority related to finance.

**Recommendation 16:** That YG Human Resources undertake a review and revision of all Job Descriptions for the FMO to ensure they reflect current practice as well as YG direction.

### Deputy Fire Marshal (4 positions)

The Deputy Fire Marshal positions are also experiencing heavy workloads and each spends an inordinate amount of time performing general administration specific to VFDs. They state that they are accumulating overtime at a remarkably high rate. Meanwhile, significant legislated mandates and functional necessities such as inspections, education, policy, strategic planning, budget management and records management are not receiving appropriate attention. Fire & life safety education programming, for instance, is minimally addressed despite a widely held acceptance of its critical importance worldwide, and verbal acknowledgement within the FMO. The workload of the staff is further impacted by ongoing and, frankly, excessive questions and requests from VFD chiefs. Most VFD chiefs, including many municipal ones, display and state little interest or capability in managing

administrative functions locally and have, as a matter of evolving practice, deferred many responsibilities to the FMO.

Regularly, the FMO staff also generate additional internal workloads due to new projects, all of which are managed by one, or more, of the DFM's. These projects usually evolve as a response to a specific new concern, often from well meaning intent, but soon require considerable time and financial commitment, neither of which the FMO has in appropriate amounts. Some examples of this include Special Operations, the EMBER fire academy, wellness programs and support of municipal fire services. None of these projects are contained within the current written legislative mandate of the FMO, the DFM job descriptions, or the FMO budget, but all are supported internally and without the required funding mandate necessary. All examples are funded through the discretionary reallocation of the annual O&M budget. The current progression of the YFS is toward complete administrative management by the FMO, undertaken almost exclusively by DFM's, with little assistance locally in most areas. This evolving operational and administrative burden cannot be met by the existing staff.

Part of the job description for a DFM position is to conduct regular site visits to individual VFDs to enhance communications and ensure oversight. These necessary visits actually rarely occur because of the administrative burden that requires daily attention, combined with an internal FMO mindset toward deference of this function, particularly in regard to VFDs distant from Whitehorse.

An example of the challenges present on DFM workload was witnessed first-hand by the consultants when a DFM was observed to spend three full days marking training evaluations for a municipal VFD. This is a serious departure from legislated requirement. This activity is not part of the FMO mandate and should be completed by the Fire Chief in the municipality involved, as per the legislation. This type of work apparently occurs frequently as a result of past practice whereby well-meaning "understandings," in turn become expectations and then obligations of the FMO through the shedding of local responsibility.

The contingent of DFM's currently demonstrate significant homogeny in skill sets, particularly backgrounds in operational firefighting and training. There is a necessity to diversify the skills sets to meet the organizational needs. At least one DFM has the advanced education and research background to take on policy management formally, but those skills is not being utilized fully. There is currently no documented or implemented succession plan in place to guide a DFM toward obtaining the required education and competencies to perform the Director/Fire Marshal role. While each DFM is expected to "act" in the Director/Fire Marshals absence, there is at least one who declines. No specific additional support is provided to enhance their performance while "acting."

It would benefit the FMO to undergo facilitated "team-building" programs to enhance their internal relationships and better understand the team's capabilities. Internal friction was palpable throughout discussions with FMO staff. There are many external organizations capable of undertaking a comprehensive team-building program for the FMO and it should be made a priority.

**Recommendation 17:** That all FMO staff be enrolled into on-going team building programs which require mandatory attendance. The facilitators must be familiar with the fire service environment and be highly trained in eliciting frank and open discussion within an organization with deeply rooted challenges.



### Director of Fire & Life Safety / Fire Marshal

The **Director of Fire & Life Safety/Fire Marshal** is a busy and multi-faceted position. Unlike many other Director positions, the FMO Director/Fire Marshal has responsibilities that encompass an extremely broad scope of responsibility including advocate, mentor, director, manager, commander, promoter, enforcer, confidante, legislator, governor, liaison, problem solver, public figure, and peer. The need to move from one extreme to the other repeatedly in the span of a day, or week, is quite obviously challenging. Officially, the Director/Fire Marshal has five direct reports (FTE's), but realistically there are at least 25 because of the regular interaction and responsibilities associated with VFD Fire Chiefs in both YFS and municipal VFDs. A 25:1 direct report span of control<sup>24</sup> far outpaces any reasonable expectation for a Director in any organization.

**Recommendation 18:** That the internal YG organizational chart for the FMO appropriately reflect the existence and reporting of YFS and municipal VFDs.

The Director/Fire Marshals office, which is in a different part of the WFM building, facilitates separation from internal personal dynamics of his team, but it also regrettably separates the Director/Fire Marshal from the necessary workings of, and engagement with, his team.

### Financial and Risk Management

There is a concern regarding adherence to YG corporate policy and practice related to agreements and initiatives that the FMO has entered into that do not currently have allocated budget support. The review identified that the FMO has not submitted Management Board Submission requests or annual budget financial requests related to many projects and initiatives. Several FMO policies and standard operating procedures (SOPs) are inconsistent with each other, or even conflicting. Adequate risk analysis, including outside influence and impacts, does not appear to have been acceptably completed on many major initiatives.

To address these concerns, the FMO needs to review all internal and corporate processes and procedures to ensure practice meets corporate expectations. This must apply to all aspects of administrative and operational work performed by the FMO including finance, risk, training, policy and procedure, VFD operations and staffing, and OH&S compliance. The FMO must follow risk management principles during this process to ensure that they “must do what they say;” their actions must reflect legislation and regulation first.

The FMO regularly practices discretionary reallocation of funding to support initiatives that were unplanned for in the FMO. This is common practice in government, but it should be utilized only for unplanned emerging demand, and not as a matter of standard practice.

**Recommendation 19:** That the FMO review and amend all YFS internal documentation, as well as empowering legislation, to accurately reflect the current mandates, practices, and authorities of the FMO. This process must be undertaken with cooperation from numerous other YG departments.

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<sup>24</sup> Typical span of control for senior officers in fire services is between 5 and 7:1

**Recommendation 20:** That the FMO prepare and submit detailed budget and resource requests annually as a matter of practice moving forward for all new programming or initiatives, and therefore minimize the use of discretionary reallocation of funding.

## Asset Management

In general, the facilities, apparatus, and equipment used by VFDs, and supplied through the FMO, are of superior quality, sufficient quantity and meet operational needs with few exceptions.

The YFS VFDs, perform the following core services: exterior structural fire exposure protection and suppression (Basic FF level); basic wildland interface firefighting, Emergency Scene Traffic Control, and other assist-type responses. A few VFDs also perform vehicle rescue. Given the overwhelming uniformity in service delivery, it is rational to identify a standardized asset inventory that meets those actual needs while also considering the size of the department and the operating environment.

## Personal Protective Ensemble (PPE)

The FMO issues a set of structural firefighting Personal Protective Ensemble (PPE) to all firefighters that includes a turn-out jacket and pants, a helmet, firefighting boots, fireproof hood/balaclava, and firefighting gloves. In addition, many are issued fireproof coveralls, used primarily for wildland-interface firefighting. Structural firefighting PPE comes under the regulatory requirements of the OH&S Regulation Part 11 and use of it is specifically identified in the FMO training documents.

Though the Yukon Workers Compensation Health & Safety Board does not specifically reference it, NFPA 1851 (2020) – Standard on Selection, Care and Maintenance of Protective Ensembles for Structural Firefighting and Proximity Firefighting states that PPE jackets, pants and helmets shall be replaced after 10 years from date of manufacture. The FMO has recognized that the intent of the OH&S legislation is to follow such manufacturer recommendations and has therefore implemented a mandatory 10-year replacement cycle for applicable firefighter PPE (helmet, jacket, and pants only). The FMO's replacement program is only partially complete and a number of sets of non-compliant PPE remain in service and should be replaced as soon as possible.

An injury attributable to expired or damaged PPE could expose the FMO and YG to a serious liability risk. This liability risk cannot be solved overnight, but it cannot be deferred over many years either. Priority has to be given to immediately replace as many active duty sets as possible with principle focus on departments that perform interior fire suppression and ones with higher numbers of expired gear. A detailed inventory of the number of PPE sets requiring replacement is required immediately.

**Recommendation 21:** That the FMO inventory all PPE and update the list at least annually, and after significant bulk purchases.

A formal checklist for inspection and maintenance of PPE was not seen to be fully utilized at all VFDs attended by the consultants despite the FMO supplying checklists to all VFDs some time ago. After each use, each firefighter is required to visually inspect all of their PPE to ensure that it is clean, undamaged, and not out of date. This is a requirement of OH&S Reg. Part 11.07(1 & 4). Few departments also provide inspection of all PPE annually by a designated individual.

Regular deep cleaning of jackets and pants are required by manufacturer recommendation, and OH&S Reg. Part 11.07(2). Each set should be disassembled and thoroughly cleaned every 6 months, or at minimum annually, regardless of use or contamination. Washing machines and clothes dryers were found in firehalls.

**Recommendation 22:** That inspection, maintenance, cleaning, and testing checklists and records for all PPE, and in compliance with all applicable legislation and regulation, be created and retained by the FMO for each VFD and firefighter.

**Recommendation 23:** That the FMO continue to institute and enforce expectation that all active-duty firefighters will use applicable PPE (Coat, jacket, and helmet) that is less than 10 years of age from date of manufacture, until such time as alternative direction is received from OH&S.

Primary PPE for each firefighter is typically stored in a locker cage area in the apparatus bay (Figure D). While certainly not ideal, these locations adequately accommodated all the necessary PPE in a safe and effective manner.

Figure D. Photo by Response Specialties

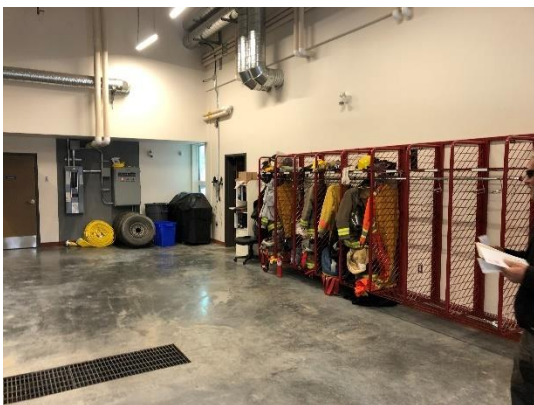


Figure E. Photo by Response Specialties



### Self-Contained Breathing Apparatus (SCBA)

The FMO provides and manages maintenance of all SCBA<sup>25</sup> to its VFDs. All SCBA (Figure E) in use is from one manufacturer, though two distinct types exist (30 minute and 45 minute). Use of a single manufacturer is a sound practice, especially for volunteer fire services, and should be continued. The FMO states that it is transitioning toward universal use of the 45-minute system which would allow for full interchangeable compatibility between departments that is not possible with the current two-systems in use. The 45-minute system also allows for longer use by firefighters without needing to change air cylinders.

Similar to PPE, the requirements for regular inspections, maintenance, cleaning, and testing of SCBA exist. Also, like PPE, SCBA inspection, maintenance, and cleaning at the local VFD level appears inconsistent. Typically, basic observation and documentation of obvious damage or defect is expected from, and performed by, the firefighters using the equipment. While many departments are invested and conscientious in applying basic inspection, maintenance, and cleaning requirements for SCBA,

<sup>25</sup> An SCBA set is composed of a face mask, pressure regulators, backpack, hoses, low air alarm, and an air cylinder.

some do not exercise the same level of compliance. A lack of attention by firefighters with regard to respiratory protection requirements is especially concerning. The FMO should regard any unmet respiratory protection requirement as serious, and should immediately require correction, under threat of discipline.

Air cylinder filling capability exists at many VFDs, but not all. Given call volume, frequency of SCBA use, and the inflated cost of purchase and ongoing maintenance, the justification for an SCBA fill station at each department is difficult to make. Consideration should be given to centralizing these expensive items sub-regionally or, alternatively, providing mechanisms for effective and timely cylinder filling for all VFDs. VFDs that do not extensively use their SCBA do not need fill stations.

Required servicing and testing of all FMO owned SCBA equipment is currently outsourced through contract to a qualified agency with certified technicians to ensure the safe and effective use of this critical set of life safety equipment. Hydrostatic testing of air cylinders, SCBA pack testing, air quality testing and fill station maintenance are all performed by contractors. All programs appear to be managed well and should be continued indefinitely.

Not all SCBA in use has integrated Personal Alert Safety Systems (PASS devices) for firefighter safety. OH&S Regulation Part 11.09(1) requires that each firefighter wearing SCBA must be equipped with a PASS device to identify a loss of movement; and thus, a potential for severe injury. There are VFDs where a separate stand-alone battery-operated device must be worn along with the SCBA. This is acceptable currently by OH&S although SCBA without an internal PASS device is considered to be nearly obsolete. Integrated PASS devices undergo an internal test and activation as the SCBA air flow is activated when the air cylinder is opened. However, it is obvious that the additional requirement of Part 11.09(3) – that PASS devices be tested at least weekly – is not being met for either PASS device type in many departments. Although the FMO requested a leave from this requirement from Yukon OH&S a number of years ago, no evidence that this was granted could be identified.

**Recommendation 24:** That the FMO maintain a single manufacturer and type SCBA program to ensure firefighter familiarity and assist in maintenance programming.

**Recommendation 25:** That the FMO establish a policy requirement of all VFDs that each PASS device in service must be tested weekly as per OH&S Regulation.

Use of SCBA appears to be inconsistent across the YFS. It is required by OH&S Regulation during all firefighting operations whenever firefighters are in close proximity to flames, smoke, or toxic fumes. In many cases the lack of calls requiring SCBA use, combined with the time required to train on it, has resulted in firefighters becoming unfamiliar and uncertain in its use. Training use is also inconsistent.

SCBA mask fit-testing, as per OH&S Regulation Part 11.12(3), must be performed in accordance with NFPA 1981<sup>26</sup> requirements. This standard identifies that fit testing must occur annually and failure to comply is an OH&S compliance violation. This requirement is not consistently being met by the FMO or its VFDs.

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<sup>26</sup> NFPA 1981 – Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services, National Fire Protection Association, USA.

**Recommendation 26:** That inspection, maintenance, cleaning and testing checklists for use by firefighters be required documentation that must be submitted to the FMO regularly and according to applicable legislation and regulation.

### Equipment & Supplies

Each VFD maintains an adequate, if not modest, cadre of firefighting equipment. The equipment is stored primarily on apparatus as there is limited storage capability in the majority of firehalls. No current and comprehensive inventory of equipment for each VFD was available.

Unlike apparatus, a replacement schedule for major equipment does not appear to exist. Ad hoc replacement occurs when needed and when funds are available. Generally, this has not been a concern, but the failure or loss of a significant piece of equipment could hamper department operations given the lack of reserve equipment in FMO stores. Asset management and stores should be maintained at the macro level by the FMO with each VFD only maintaining essential levels of equipment and supplies.

**Recommendation 27:** That a complete inventory of each VFDs equipment and supplies be regularly undertaken to ensure items are known, functional, safe, and ready for use, and that required items that are not available are identified.

Formal equipment inspection, maintenance and testing programs are generally good. There are basic safety requirements expected of all firefighting equipment, including some legislatively required testing and inspections. All equipment must be visually inspected, maintained, repaired, or replaced as required by legislation. If not legislated this should be performed monthly, or less.

Firefighting ladders are regulated by OH&S Reg. Part 11.25 – Ground Ladders. This requires that all ground ladder use, storage, inspection, maintenance, and testing be done in accordance with NFPA Standards 1931<sup>27</sup> & 1932<sup>28</sup>. The FMO currently administers annual ground ladder inspection and testing through a contractor for all VFDs, and this outsourcing practice should be continued. Visual inspections by members before and after use are required as per OH&S Reg Part 11.25, but this is inconsistent in practice.

Fire hose maintenance and testing is not regulated by OH&S, but accepted industry practice is described within relevant NFPA Standards. Standardization of fire hose appears consistent.

**Recommendation 28:** That the FMO provide each VFD with visual inspection checklists for all applicable equipment.

**Recommendation 29:** That all regulatory and departmental inspection, maintenance, and testing records for fire fighting equipment be retained as per YG records management practices or kept accessible to interested parties for a period not less than 2 years.

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<sup>27</sup> NFPA 1931 – Standard for Manufacturer’s Design of Fire Department Ground Ladders

<sup>28</sup> NFPA 1932 – Standard on Use, Maintenance and Service Testing of In-Service Fire Department Ground Ladders



## Apparatus

Each VFD is provided a number and type of apparatus as determined by the FMO. The FMO utilizes common specifications and purchase contracts. Individual VFDs have an opportunity to offer advice and ensure that department specific requirements are identified. In general, common, or pooled purchase specifications form the baseline requirements for all apparatus but should not preclude individualization of minor components that a department deems necessary for their specific circumstances. However, large scale deviation from the standardized specification should not occur.

With small populations, low levels of community risk in terms of structural fire load, and large distances between departments, it is prudent to employ a standardized, flexible fleet strategy.

The current fleet composition of large structural engines (Figure F), combined with tender apparatus (Figure G) is a traditional fire service practice that is not particularly realistic for Yukon, nor based upon either the composition of many VFDs or their capabilities.

Figure F. Photo by Response Specialties



Figure G. Photo by Response Specialties



In a number of cases, only a limited quantity of department members habitually operate the large fire apparatus. This limitation translates into potential restricted availability of important apparatus to respond. In general, no apparatus should be operational in a volunteer fire department that most members cannot drive and operate. Given that current Yukon *Motor Vehicles Act* requirements identify the need for a Class 3 license to operate a large fire apparatus, consideration should be given to adjusting local fleet composition to include vehicles requiring only a Class 5 license if the number of licensed Class 3 drivers is low, or the justification for large apparatus is weak.

In review of the current FMO fleet there were several observations whereby change is warranted. Most of the more rural and remote VFDs operate with a staffing profile of eight or fewer volunteers. Of those, virtually all are either trained only to the Basic Firefighter qualification, or they are trying to achieve it. Further, rarely do all members attend an incident, with four or fewer being the norm according to chiefs. Given these parameters, there is no demonstrable need for two large fire apparatus in several firehalls. Rather, there is a practical application for a rapid attack unit followed by a tender in smaller VFDs. In the larger, well staffed VFDs the need for more and larger equipment can be validated.

Major fire apparatus is maintained through a contract vendor who provides on-site servicing at each VFD. Utility vehicles are maintained through the YG Fleet Services division. Management of these contracts and services is performed by FMO staff. Individual VFDs have little responsibility related to apparatus maintenance, though members are expected to perform the roles and responsibilities identified within their Class 3 Driver License related to pre- and post-trip inspections.

While pre- and/or post-trip inspections are required, the FMO does not formally track or record them, and they are not consistently occurring as required. Pre-trips are typically unfeasible for emergency vehicles given the nature of their use. This is acknowledged in regulation and post-trip inspections are instead authorized as long as they occur after each emergency use. However, pre-trips must occur prior to any non-emergency use and should be done weekly at training night if the apparatus has not been used. At minimum, a full pre-trip must occur monthly without exception, for every apparatus.

Post-trips must immediately occur after an apparatus is used on an emergency call, as per the *National Safety Code* and *Yukon Motor Vehicles Act*. The post-trip must encompass ALL aspects of a pre-trip inspection as described in the Yukon “driving commercial vehicles” Guide, pages 208-215 – Class 3 License . Many departments are performing “modified” post-trips inspections after calls to avoid the time necessary to complete the full required inspection. However, a full check as described in the Guide is required and must be performed by the apparatus driver after the response. As a requirement of license, all Class 3 drivers must be competent to immediately perform a full pre-trip inspection of any of their VFD apparatus at the request of a police officer or motor vehicle branch inspector.

**Recommendation 30:** That all VFD firefighters who may drive/operate any fire apparatus receive training on pre- and/or post-trip inspections on each apparatus on a regular basis, as well as complete them regularly after calls and practice nights, as per the regulatory requirements in place in Yukon for their driver license level.

It was noted during firehall visits that many apparatus are not kept clean. Many were dirty and appeared not well looked after. This would appear to demonstrate a lack of VFD pride in their equipment; a concerning observation to be sure. A dirty fire truck can often be a harbinger for more serious neglect. Further, a number of units were found to be disconnected from the firehall exhaust extraction systems, potentially exposing members to harmful exhaust emissions on vehicle start-up.

**Recommendation 31:** That all VFDs be required to clean all apparatus and ensure operational readiness at the end of each incident response as well as at training sessions.

Fuel for apparatus is typically obtained from a local fueling facility. No VFDs have on-site fueling depots at their firehalls. The FMO should work with VFDs to ensure that local 24/7/365 fuel access can be maintained in the event of business closure. Agreements with vendors, use of purchasing cards, and potential use of mobile vendors, should be maintained and/or researched. All fuel purchase records must be maintained for submission to the FMO for fiscal management purposes.

**Recommendation 32:** That the FMO ensure that a guaranteed 24/7/365 fuel access program is in place for every VFD, including use of firehall fuel depots or mobile delivery vendors if required.

## Facilities

The FMO uses a small office area off the hallway to the warehouse section of the Wildland Fire Management (WFM) headquarters. The Deputy Fire Marshal's and the Finance/Administration Clerk work within this office area, each with a separate small office and one common business area, while the Fire Marshal is segregated out into another section of the WFM office area. This office layout does not support the effective and efficient operation of the FMO team.

Visitors to the FMO are provided little directional signage, or building signage, until they are at the front door of the WFM building. The only acknowledgement of the FMO is a logo sticker on the side of the front door. Inside, a small hanging sign directs visitors to the FMO office along a hallway that passes through a portion of the WFM warehouse area (Figure H). To an unfamiliar visitor and given the layout and signage within WFM as well as the accompanying new EMS/EMO building next door, the FMO office clearly appears as a section of WFM or, at best, a lesser entity within the building.

Figure H. Photo by Response Specialties



Figure I. Photo by Response Specialties



**Recommendation 33:** That the FMO earmark budget for procurement of prominent signage identifying the location of the FMO, and directions to it.

Storage of surplus or newly purchased equipment by the FMO is currently occurring within the offices themselves or in several small storage cages (which are also inadequate) within the WFM warehouse area (Figure I). Given its overall space limitations, and a need for additional office space with implementation of some recommendations within the report, there is a need for a review of the facilities allocated to the FMO. Consideration should be given to alternate locations or consolidation with WFM stores.

**Recommendation 34:** That the FMO explore opportunities for office and storage space relocation, rearrangement, or addition to meet the current and anticipated needs of the office over the next several years.

The Yukon government provides infrastructure relating to unincorporated volunteer fire departments, including 16 Yukon-owned firehall facilities located within the 16 unincorporated communities under FMO jurisdiction.



The community firehalls are of generally adequate size and capability. Many are newer and their capacities and capabilities actually exceed the requirements of the fire departments that use them. There are several stations that are only a few years old and are home to either closed, or under-performing fire departments with one to three firefighters. The Yukon Government has allocated substantial amounts of funding toward construction and operation of these facilities, yet less than half are operating at, or near intended capacity. Parking and access for responding members is good at the firehalls. Management of snowfall accumulation impeding response is an ongoing concern for all facilities but seems well understood and managed. Each firehall has cleared some defensible space between the building(s) and woodland, but all facilities are located within areas that present risk to the buildings from wildfire, or even flooding in some cases.

All facilities can accommodate the necessary vehicle and equipment needs for each department. Each facility has an office area, some storage, a training/meeting room, and washrooms. Most facilities have at least two washrooms and showers which effectively accommodates a diverse staff. Having only one washroom or one shower is not ideal for the type of work and personnel involved, nor will it meet evolving OH&S or *Yukon Human Rights Act* expectations. Few halls have hose storage/drying capability. Exhaust extraction systems exist in the firehalls, though a couple appeared either unused or non-functional during on-site visits as the hoses were hanging loose off and away from the apparatus.

Firehall construction, and systems, appear to be of generally excellent quality and of adequate type and design for the location, though as fire service consultants we must state that we are not experts in building construction quality. Several halls serve multi-purpose uses with the facility shared by either the community water treatment facility, or by other community groups.

The firehalls appear to be well kept and appropriate use was apparent in all cases.

## Human Resource Management within YFS

Local community Fire Chiefs are given the responsibility through the FMO to undertake recruiting and retention activities within their local VFD. Little formal assistance is provided by the FMO and no specific recruitment or retention programming is in effect Yukon-wide.

Turn-over within most VFDs is significant and expected, with a couple of exceptions that can be attributed to strong local leadership. Many departments do not always report departures of firefighters which results in the FMO being unaware of the actual enrollment and capacities of its fire service. As an example, the Director of Fire & Life Safety/Fire Marshal Job Description, written in April 2016, documents 250 volunteer firefighters. However, discussions between the consultants and Fire Chiefs themselves revealed that there are only 94 volunteer firefighters currently in the YFS. This discrepancy is far beyond simple fluctuation with time. It reveals inadequate records management practices as well as profound change within Yukon with respect to volunteerism for community fire services.

As stated previously, it was readily apparent to the consultants that there is little interest in any increased administrative function from the current cadre of Fire Chiefs under FMO oversight. In contrast, most emphatically state they have no further time available and no desire “whatsoever” to do more administratively. Operation of a fire department requires active, engaged, and educated

leadership. If individuals do not exist that possess those attributes the department or system at large will fail. This is the current condition within many VFDs under the FMO.

The Community Engagement Survey (Appendix 7) conducted by Response Specialties identified some strong animosity toward the FMO and YG at the local level, specifically in regard to the expectations that were being placed upon prospective volunteers in terms of entry requirements and training time. Additionally, departments are not reporting serious recruitment and retention challenges because they fear reprisal and closure by the FMO under its existing staffing requirements for VFDs. As a result of low retention and inadequate recruitment, many departments maintain a total roster that either does not meet, or barely meets, the requirements to operate safely.

Many VFDs do not report high enthusiasm and attendance at training. There are departments where some members may not be attending regular training at all. This identifies a serious safety issue. Not all VFDs have documented training attendance standards and even fewer conscientiously enforce them. Yukon OH&S requires that all “workers,” including volunteer firefighters, must be fully trained initially, and regularly retrained and evaluated thereafter in the work they perform. Realistically, members who infrequently attend training cannot be anticipated to be compliant with this expectation. As a result, they cannot be considered members from the perspective of minimum membership requirements. The Community Engagement survey provided several viewpoints<sup>29</sup>.

**Recommendation 35:** That the FMO explore and implement an appropriate minimum training attendance requirement for all VFDs. Suggest that each firefighter must attend an absolute minimum of 4 hours training per month, or twenty-four hours annually, to maintain membership for Basic Firefighter qualification. Failure to achieve should result in discipline.

The YG, through the FMO as its fleet manager, has been requesting regular Driver Abstract reports. This ensures that FMO staff and VFD chiefs are aware of any violations or prohibitions placed against an individual firefighters’ license. However, two concerns have been identified. One, there does not appear to be a formal documented process for managing driving violations, and two, there is currently no requirement for a firefighter to immediately disclose to their Fire Chief, or the FMO, any new violation or prohibition. As a result of this disconnect, potential exists for a firefighter to continue driving fire apparatus while under prohibition or restriction without the knowledge of the FMO or fire department. This is a significant liability risk that must be remedied by requiring immediate notification of any restriction or prohibition.

**Recommendation 36:** That a formal discipline process be identified for application in the event a firefighter has a restriction or prohibition on their drivers’ license.

**Recommendation 37:** That a requirement be established requiring immediate notification to the Fire Chief, and FMO, of any restriction or prohibition from driving.

Enhanced Criminal Record Checks, including Vulnerable Sector<sup>30</sup>, are requested on initial hire. With few exceptions they are not requested again during member tenure unless there is a specific

<sup>29</sup> See Question 14 of Appendix 7.

<sup>30</sup> Protects against a risk of physical or sexual abuse to children or a risk of physical, sexual or financial abuse to vulnerable adults

occurrence or need. This practice is insufficient to ensure ongoing public safety. As firefighters regularly have direct contact with citizens, including vulnerable persons, their conduct must always be assumed to be exemplary. Further, with potentially unlimited access to individual property through powers of the *Fire Prevention Act* during emergency situations, firefighters are expected by the public to be fully law abiding at all times.

**Recommendation 38:** That an RCMP Enhanced Criminal Record Check, including Vulnerable Sector, be required for all firefighters upon hire, and every 3 years thereafter at FMO expense. Failure to comply should result in immediate dismissal of the firefighter.

**Recommendation 39:** That a formal procedure be established to set forth a review process related to identified criminal record entries in order to determine the relevance and importance to fire service involvement of each individual case, as well as what, if any, disciplinary action, up to termination, should be undertaken.

Recruit firefighters are, by directive, subject to initial medical exam by a physician to become a firefighter. This is a costly, challenging process due to the availability of qualified practitioners and the distance new recruits need to travel to undergo the exam. In practice, it is known that not all recruits do in fact undergo the exam prior to entering service. This is a concerning policy violation.

The premise under which these exams are being required is tied to a Yukon OH&S investigation into the death of the Tagish volunteer Fire Chief in 2012. The interpretation of the Investigative Order appears to have become skewed over time. The FMO has established that the requirements of NFPA Standards 1500<sup>31</sup>, 1582<sup>32</sup>, and 1583<sup>33</sup> are necessary as a result of the Order. These are complex, costly, and imposing requirements for any fire service, even large metropolitan cities. In speaking with the current administration of Yukon Workers Compensation who, importantly, include the investigator of record at the original incident, the intent of the Order was to apply pertinent portions and not the entirety of these NFPA Standards. It appears that the FMO originally hoped to fully pursue the NFPA Standard but has recently reconsidered and is contemplating more reasonable expectations. Even still, perceptions and expectations remain of medical exams and physical capabilities that are incongruent with the actual practical requirements of most Yukon firefighters; those delivering services at the Basic Level (purely exterior firefighting).

The current methodology is further flawed in that recruiting is reportedly being negatively affected by expectations that exceed the actual bonafide job requirements for the Basic Level. Initial medical evaluations, as well as on-going medical examinations or fitness proficiency assessments, need to ensure safe and effective firefighters at the level of service they perform; not the level expected of a career fire service. Some expectations are prudent: medical and fitness evaluations - at an appropriate level - should be implemented prior to any "hire" of a volunteer firefighter, and, if a member has been away for a prolonged period - whether from illness, injury, work or leave - they

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<sup>31</sup> NFPA 1500 – Standard on Fire Department Occupational Safety and Health Program, National Fire Protection Association, USA

<sup>32</sup> NFPA 1582 – Standard on Comprehensive Occupational Medical Program for Fire Departments, National Fire Protection Association, USA

<sup>33</sup> NFPA 1583 – Standard on Health-related Fitness Program for Fire Department Members, National Fire Protection Association, USA

should be subject to a health and fitness review prior to returning to duty. However, all of these requirements should realistically fit the role being applied for, or regularly undertaken.

**Recommendation 40:** That all new firefighter recruits obtain a certificate of fitness (mental and physical) from either a qualified Registered Nurse or a registered Physician identifying they are clear to assume the duties of a firefighter at the specific Level of Service attributed to their community and training. Local Nursing Stations should be considered as appropriate. Costs for this request must be reimbursed by the FMO on hire.

**Recommendation 41:** That regular general fitness assessments be made a component of the annual training program for all firefighters, with attendance being compulsory. This fitness assessment will be based solely on bonafide requirements specific to the firefighter's specific role in the fire department.

**Recommendation 42:** That any firefighter who has been absent from training or responses due to injury or illness for a period exceeding six consecutive months, or who has missed their compulsory annual fitness assessment, be made to undergo a medical evaluation by a qualified registered nurse or physician, as appropriate, and be cleared of any associated health concerns prior to returning to active duty. Costs for this request must be reimbursed by the FMO.

**Recommendation 43:** That any firefighter who has been absent from training or responses for a period exceeding six consecutive months, regardless of reason, be made to undergo a skills assessment at their Service & Training Level before returning to active duty.

All Yukon firefighters within the YFS are provided with direct financial remuneration for fire department related activities including incident response, training, maintenance, and administration. All Fire Chiefs are also provided a further stipend, via policy, to compensate for the additional administrative duties of the position. The Community Engagement survey respondents demonstrated staunch support (65%) for maintaining the current remuneration model for the YFS<sup>34</sup>. During engagement there were a number of requests to implement remuneration equity, or at least growth ties, to the EMS volunteer wages. Currently, EMS volunteers are paid more on an hourly basis than fire service volunteers. Of more significance is that many chiefs report the loss of significant numbers of volunteer firefighters to EMS because of the potential for increased wages and opportunity in that organization. Both organizations are equally valuable and pay should reflect that.

**Recommendation 44:** That volunteer firefighter hourly remuneration be tied to that of the entry-level position for EMS. The current wage for firefighters of \$22 per hour has not changed in many years. Consideration should be given to raising it appropriately and then tying it directly to any future incremental increases afforded to entry-level EMS volunteers.

## Dispatch and Communication

The Yukon has a relatively new territory-wide 911 system. Participation in this service ensures timely emergency phone activation and professional call answer services from the primary Public Service Answering Point (PSAP)<sup>35</sup> at the Yukon RCMP. From there, fire service calls in Yukon are

<sup>34</sup> See Question 15 of Appendix 7.

<sup>35</sup> PSAP is location where initial answering of any 911 call takes place

distributed through several fire dispatch facilities (secondary PSAP's). The FMO currently supports and encourages YFS departments and municipalities to utilize the private dispatch provider known as "Delta-1" as its secondary PSAP. Delta-1 is a private enterprise which offers communities dispatching services for their fire resources.

This company, at time of writing, provides fire dispatch to 17 fire departments, as well as numerous other agencies. The YG contract with Delta-1 originates with the Department of Environment, who the FMO, in turn, have an agreement with. At the time of this report, Delta-1 does not provide dispatch service to the municipalities of Whitehorse, Dawson, Mayo, Carmacks, and Faro and neither does it provide service to areas without a functioning VFD, such as Keno and Old Crow.

The dispatch system appears to have been intelligently designed with redundancies present through radio, cellular, satellite and various links. It is staffed 24/7/365 by only a single trained dispatcher employed by Delta-1. Additional personnel capability is apparently provided by the owner, or his partner, who are close by and can assist if required. The current facility is not a permanent building, it is not seismically engineered, and it is definitely exposed to wildland fire threat in its location and layout (Figure J).

Figure J. Photo by Response Specialties



The owner has acknowledged the numerous industry best practices that exist, such as NFPA Standard 1221 - Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, and states the system is designed to achieve expectations. It is unclear if it currently meets the standards or what reporting from Delta-1 is required by the FMO, or any communities, to confirm compliance to industry best practices. It is equally uncertain as to the extent to which these best practices are being met as no reporting was provided by the FMO.

Recently, Yukon EMS has commissioned and begun operating a dedicated multi-position dispatch center. The EMS Director identified to the consultants that this center is designed with capability to add users. Numerous other YG representatives identified the potential for "in-house" dispatch of YFS assets through the new EMS dispatch center. This option should be thoroughly explored. Representatives at the FMO and within YG reported that discussions have occurred in past with Whitehorse Fire Department regarding potential for their dispatch center to provide Yukon-wide services. For a number of reasons that was not pursued.

While consideration of alternatives is both prudent and necessary under procurement policy, it is also good practice for fire services to regularly research and ensure that they are receiving service at the highest standards possible from a system that is robust, sustainable, and adaptable. With the incoming digital spectrum and Next Generation (NG) 911 services, it is critical that any fire dispatch



service be capable of meeting or exceeding the digital network capabilities of NG911 from the outset. YG must ensure that fire dispatch services meet the highest standard to ensure the safety of their most valuable assets, firefighters.

**Recommendation 45:** That the FMO ensure that Fire Dispatch providers be researched and validated against recognized industry standards and benchmarks for emergency services dispatch. This includes facilities, technology, staffing, procedures and records management/reporting. Further, that the dispatch provider be required to report monthly on ongoing compliance with established industry standards and benchmarks.

During the review process with VFDs there were no voiced concerns regarding the fire dispatch services provided by Delta-1. In fact, Delta-1 is providing Yukon firefighters in many communities their first dedicated resource and safety back-up during incidents. All chiefs appear to have good relations and high regard for the dispatch provider which is positive and demonstrates respect for the role of dispatch/communications in firefighter safety.

The FMO manages and purchases all radio communications equipment for its VFDs. The FMO manages and allocates payment for all radio licenses issued by the Government of Canada. Radio licenses are based upon two factors – the frequency type and the number of devices accessing it. It is important that the FMO ensure radio communication equipment is licensed annually. The frequencies and number of devices in use must be accurately catalogued and monitored to prevent non-compliance enforcement which could impact operations and incur financial penalties. Should the licensing be found to be inaccurate, rectification of the license requirements could result in significant cost increases.

**Recommendation 46:** That the FMO identify all radio equipment in use in each VFD and cross-reference this information against the allocated number of devices for radio licenses issued for each department. Radio licenses must be updated accordingly on an annual basis.

**Recommendation 47:** That the FMO develop, and maintain, an annual inventory of all of its radio equipment and licenses.

There are numerous cellular-based Apps available for use by VFDs in Canada to enhance firefighter dispatch. They include, “I am Responding,” “Active 911”, and “FFRS”. All are effective and are complemented by their users. However, each department must typically purchase, maintain, and manage their App individually, creating extra work, added costs, and a lack of standardization. None of these Apps appear to be in use in the YFS departments visited and the FMO has no known plans for Yukon-wide implementation. This appears reasonable as cellular phone service in Yukon is inconsistent, or non-existent in many communities.

The VFDs generally have maps of their typical response area posted at each firehall. Most are good, though some lack detail and appear aged. All maps should be updated and/or, enlarged and all should be plasticized and placed such that responders can easily annotate on the plastic sheet with dry erase pen any information necessary about the incident, such as best access, and location details for all responding members to see. Further, identification of target hazard properties, water supply access points, unmarked access roads, and known safety concerns should be readily identified on each map.

Assistance between YFS departments, as well as with the municipal VFDs, is present. All reports are that it works well, though it is infrequently required. Some departments have independently implemented an automatic aid response posture between them to enhance local on-scene numbers of volunteers.

Automatic aid is a similar arrangement to mutual aid except that participating departments will be automatically dispatched and respond, upon receipt of the 911 call, and prior to any specific request from the VFD with jurisdiction. Most automatic aid applies to a specific set of call types, or other conditions; typically, those that are either substantial risk to public or firefighters, or scenes requiring substantial numbers of personnel.

Use of automatic aid brings several significant benefits. First, additional response of personnel and equipment improves firefighter safety exponentially. Second, the capability to successfully mitigate the event in a faster time because of additional personnel, water capacity and pumping capacity. Third, enhanced interaction between fire departments and firefighters at incidents normally facilitates improved training opportunities and sharing of knowledge.

Important to the success of automatic aid in Yukon is the participation of the municipal fire departments. Automatic aid is virtually always “win-win.” Increased cooperation, integration and operational capacity outweighs any perceived negative impact that might occur. Traditionally, some departments and chiefs perceive participation to indicate that their department is weak and unable to “do it all themselves.” This prehistoric attitude must, and likely will, change when the benefits are seen first-hand. The FMO should implement automatic aid response for all structure fires, hazmat incidents, technical rescue, and advancing wildland-interface fire.

**Recommendation 48:** That the FMO fully institute a Yukon-wide Automatic Aid requirement in 2022 for all serious incident types including structure fire, hazardous materials spill, technical rescue and advancing wildland-interface fire. The FMO should engage each municipality, including Whitehorse, as well as the fire dispatch provider to participate in the Automatic Aid program. Further, that the Automatic Aid program be committed to policy and SOP for reference and training.

Additional “move up” requirements may be necessary from other departments as part of Automatic Aid to “backfill” and cover a fire protection area while their home apparatus is assigned and committed to the original incident. If, once on scene, the primary department determines that additional assistance is not required, they may either cancel the aid response or request area coverage for a brief period until local resources can become available again.

**Recommendation 49:** That the FMO define and standardize back-fill requirements for aid departments responding to another jurisdiction under an Automatic Aid request.

Slight call volume increases will occur because of automatic aid response. However, given the small number of serious incidents, the relative increases should not unduly stress VFD response capabilities. Conversely, increasing the number of responses to incidents has been widely recognized as a positive driver for firefighter recruitment, retention, and department morale.



## Training

There are several levels of training that are available for firefighters and officers. Training should be coordinated regionally and should be commensurate with the needs of the area. There is considerable evidence that the only level of training realistically achievable for most departments in the YFS is Basic Firefighter. In fact, FMO data identifies that 76% of current Yukon FMO volunteer firefighters are either attempting to meet, or have met, the training requirements for only the Basic Firefighter Level<sup>36</sup>. Fewer than 18% are qualified at the FF1 - Interior level or higher, and virtually all of these individuals are members of only three or four departments. Interestingly, 89% of Community Survey respondents state that they are aware that the FMO uses the same training standards as applied in most of Canada<sup>37</sup>. However, there are numerous standards in use<sup>38</sup>.

The FMO training curriculum should primarily focus on recurring delivery of Basic Firefighter competency materials across Yukon. Secondly, it should continue to offer opportunities for interested individuals to achieve their FF1 qualification. These opportunities could be locally delivered, as necessary, but given the low overall interest (described above) it may be better scheduled annually and delivered in an academy format, similar to EMBER. This would allow interested firefighters to prepare themselves for the training and arrange for time to attend.

Overall compliance with the Yukon Firefighter Training Curriculum and Standards is generally strong and VFDs should be commended for adopting and embracing the expectations. Every department is believed to be utilizing the official training materials. While nearly all departments have instituted a compliant training program for new firefighters some are not undertaking regular maintenance training on a one to two-year cycle that ensures all skills are refreshed for each firefighter. Additionally, many are not adequately re-evaluating existing members, on an on-going basis, to ensure skill competency is maintained.

During the review process several departments disclosed that they perform extra discretionary services such as vehicle rescue. The FMO should ensure that VFDs performing additional discretionary services are meeting competency requirements, or they should be stopped from performing the activity.

Training in other important aspects of fire service operations is equally essential for effective and efficient performance. This includes training in Incident Command, Emergency Vehicle Operation, Emergency Scene Traffic Control, and other skills. Each skill has identified competencies and procedures that are described within reference materials that should be made available through the FMO. The FMO should maintain a current library of applicable training materials to standardize operations and reduce costs. The FMO should consistently deliver these programs across the YFS.

**Recommendation 50:** That the FMO and its VFD leaders cooperatively develop, implement and review annually, a documented multi-year training program covering all services delivered and the associated training requirements.

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<sup>36</sup> See Appendix 15

<sup>37</sup> See Question 9 of Appendix 7.

<sup>38</sup> See Question 21 of Appendix 8.

**Recommendation 51:** That the FMO review all core and discretionary services delivered by VFDs and ensure that recognized training programs are utilized and comply with applicable legislation and best practice.

Planning for regional training programs should take place during budget deliberations and be scheduled to ensure there are few possibilities of short notice training courses at greater expense than necessary. It is understood that occasions exist when a training course may become available on short-term notice, and that because of scheduling volunteers there could be occasions when individuals will either cancel or be sent to training on short notice.

The FMO has identified many qualified instructors at multiple training levels from within the ranks of the VFDs. This strength should be built upon with additional regional programming for instructors and increased numbers of training opportunities.

**Recommendation 52:** That the FMO identify at least six qualified instructors from within the YFS ranks to immediately begin development and instruction of regional training programs. Consideration should also be given to use of municipal instructors, including Whitehorse.

There is no universal training attendance standard for firefighters in the Yukon. In fact, according to some chiefs, significant numbers of firefighters do not regularly attend training. Some chiefs take this issue very seriously and attempt to enforce an internal standard, but consistency is difficult and personalities, tenure, and other factors often come into play. The review elicited a couple of reports that some firefighters receive little or no training annually and yet they may still be permitted, or even encouraged, to respond to emergency incidents and perform active duties because they are seen as either “valuable” or “really experienced.” This identifies a serious liability risk related to firefighter safety and performance due to minimal training exposure and it must be stopped.

Several VFDs have established the presence of a training ground” near their firehalls (Figure K). These training grounds must only be created utilizing established standards for fire props or burn buildings and cannot be ad hoc in nature and devoid of engineering design or site assessment. Consequently, there may be unsuitable facilities in use as live fire training equipment. Overall, the development of any ad hoc training grounds at individual firehalls should cease in order to avoid potential risk of firefighter injury or organizational liability.

Figure K. Photo by Response Specialties “



**Recommendation 53:** That any local VFD training ground use be discontinued unless the site can be certified to be safe for use in fire service training.

## Occupational Health and Safety (OH&S)

The major statutory requirements for Occupational Health and Safety (OH&S) programs within Yukon are found in the *Workers Compensation Act* and the *Occupational Health and Safety Act* and Regulations. The complex and highly prescriptive components of these documents are a challenge for any industry to interpret and remain compliant with. It is especially so for VFDs with chiefs without previous experience or expertise in the field. While overwhelmingly safety conscious as a rule, fire services are often challenged to both understand and implement the necessary OH&S requirements. As OH&S programs are frequently more compliant with legislation when they are managed centrally by trained and experienced personnel, this is a role the FMO should correctly manage through a Joint Occupational Health & Safety (Joint OH&S) program.

Of specific importance to firefighters is the continued protection from, and testing for, medical conditions that are covered by Yukon presumptive disability law through Part 3 of the Worker's Compensation Act – Presumptions and Benefit of Doubt. The FMO should have a moral obligation to ensure that all possible methods and policies are in place to ensure firefighters are covered in the event of developing a disability or illness related to this legislation.

Joint OH&S committee members are being provided, and are attending, required annual OH&S training through the FMO.

**Recommendation 54:** That the FMO ensure that the Joint Occupational Health & Safety (Joint OH&S) program include all member VFDs and be fully supported and funded in the pursuit of enhanced firefighter safety and risk reduction.

**Recommendation 55:** That the FMO facilitate regular OH&S workshops for committee members from all VFDs to learn and share knowledge.

Training records must meet the full requirements of OH&S. Detailed individual firefighter training records must be kept for the duration of their career. Group training records alone do not adequately record individual competency or training compliance. Many departments provide incomplete records, both personal and departmental. Database entry of training sessions must include specific descriptions of activities, evaluations, and training performed by an individual.

**Recommendation 56:** That the FMO determine compliance of its records database with all expectations and requirements of OH&S and rectify any shortcomings immediately. Further, that the FMO attempt to retroactively account for all such records for all firefighters currently in service.

No single department is likely compliant with all OH&S expectations. In fact, it is unlikely that there is even one single OH&S item that every department is compliant with that is not fully administered by the FMO itself. This illustrates both a need for more effective oversight as well as a lack of capacity locally.

Annual Workplace Hazardous Material Information System (WHMIS) training was found to occur in all VFDs. It is required annually by the OH&S Regulations.

Facility Safety Inspections are not being performed as per the OH&S Regulation. Some VFDs are responsible and complete them monthly while others require constant reminders or fail to do them at all.

Identified and equipped first aid attendants are present within VFDs but records of injuries and treatment are lacking according to FMO staff responsible.

Near-miss investigation and documentation appears to be lacking, and the requirements not well understood by YFS personnel.

YG and the YFS should adopt the emerging practice within emergency services of providing a specialized emergency vehicle driving program. Driving to and from incidents is well documented as a primary cause of firefighter injuries. Comparable results are seen in other professions like EMS and police (Williams A.S., 2005). Research also demonstrates that response time differences between responders travelling “Code 3” (emergency lights and siren activated) and those travelling “Routine” (no lights or siren) are frequently minimal in the rural setting with little traffic, few intersections, and minimal higher speed limits (Williams A.S., 2005).

Proper education and training of emergency vehicle operators (EVO) is well understood as a critical skill. In Yukon, both RCMP and EMS are required internally to receive this type of training. In the YFS this is not the case despite virtually all drivers being inexperienced at emergency driving or operating heavy apparatus. There are training programs available that can be delivered either in-house or via contractor. These should be explored by the FMO and an OH&S safety priority.

**Recommendation 57:** That the FMO implement an emergency vehicle driver/operator training program that all YFS apparatus operators must successfully complete.

**Recommendation 58:** That the FMO implement a safe-work policy to restrict fire apparatus response to “routine” (no lights or siren) unless the driver operator has successfully completed a designated driver training program (such as CEVO).

An example list of major Yukon OH&S compliance items is attached to this report as Appendix 9. Two specific areas of high concern that were determined to exist in many departments are, failure to maintain personal protective equipment (PPE) inventories that meet OH&S lifespan requirements (10-years maximum) and failure to ensure face mask fit-testing<sup>39</sup> requirements for use of SCBA equipment. Non-compliance with OH&S safe work practices could potentially lead to a Criminal Code charge against an organization, or supervisor, if an “employee” is seriously injured or killed and criminal liability can be linked to inadequate training or supervision.

**Recommendation 59:** That the FMO immediately address serious OH&S compliance issues at the VFD level, where necessary.

**Recommendation 60:** That the FMO create a comprehensive checklist of all required OH&S compliance items and records for reference use by all interested parties.

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<sup>39</sup> SCBA mask fit-testing ensures that no toxic fumes can get past the mask seal on an individual's face

## Education and Prevention Programs

The FMO has a legislated mandate to provide for fire safety prevention in Yukon. Public Education is an essential component of the fire prevention mandate. The principal priority of all fire services should be to prevent fire. The most effective methods to do that are fire and life safety education programs and fire safety inspections. A fire service primarily engaged in response to, and suppression of, actual fire incidents should be looked at as failing its primary mandate. The FMO and its Yukon VFDs are failing in this regard. The apathy and lack of effort to fulfill the prevention and education mandate is significant and exists at the FMO, VFD, and community levels. The Community Engagement survey identified that only 50% of respondents believe that their VFD performs fire safety education and a further 18% believe the VFDs do fire inspections. Further, only Hazmat response was given a lower priority than educational programs by respondents<sup>40</sup>, but this does not appear to be the actual practice. While it is the role of the FMO to set the example and enforce compliance, there is little evidence that either prevention or education receive priority engagement.

The Yukon receives significant federal funding that allows for provision of many services. Unfortunately, the FMO does not exercise prudent management of the funds received as little to no funding is allocated directly to prevention or education. Long-term financial sustainability related to fire suppression efforts should be questioned, while at the same time that available funding could support extensive and effective prevention and educational programming. Yukon EMO is similarly challenged but appears in better shape than the YFS because it has entirely embraced the prevention and education methodology.

While fire safety inspections are being completed for some occupancy types at a rudimentary frequency, they are not meeting typical industry benchmarks. For example, it is reported by FMO staff that inspections of assembly occupancies, such as schools, pubs, and restaurants, are occurring every 2-3 years, when best practice identifies that these higher risk environments should receive annual, or preferably biannual, inspections. The current FMO staffing model is incapable of achieving industry best practice benchmarks.

In general, YFS departments do not engage in, nor are they responsible for, public education programming or fire and life safety inspections at the local level. During annual Fire Prevention Week a few VFDs perform local public relations/education at community events or schools where they distribute pamphlets provided through the FMO and talk to locals. However, there are few other examples of proactive engagement. Of particular absence and concern is the profound lack of local engagement in FireSmart and Home Smoke Alarm programs. Both programs are critical and can have a direct and immediate impact on community safety should they be delivered. Each has a prominent place in the recent history of the Yukon.

**Recommendation 61:** That YG, and the FMO, establish a formal frequency schedule for fire safety inspections in unincorporated Yukon based upon occupancy type, age of building and any additional risks. Research of benchmark examples from other jurisdictions to establish the internal intervals is further recommended.

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<sup>40</sup> See Questions 4 & 5 of Appendix 7.

**Recommendation 62:** That YG increase staffing levels at the FMO to facilitate capacity to meet or exceed established benchmarks for fire safety inspection frequency in order to ensure ongoing public safety.

Regrettably, education programs are not required services expected of local VFDs by the FMO. While greatly beneficial, these programs do require resources (people and material). During the review, volunteer Fire Chiefs often expressed distaste for delivering these programs because they add time to their firehall commitment, and these programs are rarely the reason they became a firefighter. Given the apathy clearly observed from virtually every chief interviewed, there is little if any appetite for local engagement generated by VFDs.

However, alternate opportunities do exist to enhance local fire & safety education program delivery in VFD communities. The FMO has made a number of attempts to initiate a Community Safety Champion program, with little traction being achieved. Departments in other jurisdictions however do recognize the true value of prevention and education as a core service for VFDs. Correspondingly, they are dedicating resources to delivery of these important programs. One successful model, remarkably similar to the FMO's Community Safety Champion involves the "hiring" of dedicated volunteer public education members within the VFD. These members would be recruited from the community and preferably possess previous education or public engagement backgrounds. These positions would be excellent opportunities for individuals who strongly believe in fire safety, support educational safety messaging, and want to help the community, but either cannot be a firefighter (due to age, physical limitations) or they do not wish to be one (fear of heights, claustrophobia). The costs are near negligible and they do not require firefighter training, nor PPE.

The benefits of such a change in philosophy within a department can be profound. First, the obvious benefits of improved public safety are evident. Second however, is that these individuals, because they pro-actively engage the entire community, will function as an overall ambassador for the department. This will introduce the department in a positive way to a much wider spectrum of the community than currently occurs through the minimal interactions being done. As a result, community profile, department trust, respect, and most importantly firefighter recruitment will benefit.

**Recommendation 63:** That the FMO push forward with its Community Safety Champion program in all communities and that each VFD implement this dedicated position (non-firefighter) within the volunteer ranks of the department.

There are numerous fire safety educational tools that can be either purchased commercially or built internally. Examples include training props such as fire extinguisher simulators, gas valve props, smoke, and carbon monoxide alarms, FIRESMART<sup>41</sup> models, as well as many audiovisual aids. Most are inexpensive and readily available and should become integral pieces of the FMO asset cache dedicated to prevention and education. Others, such as a fire extinguisher simulator<sup>42</sup>, are costly but through regular use can easily demonstrate a positive cost-benefit balance. Additionally, the cost of

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<sup>41</sup> FIRESMART is a recognized program to make areas around structures safe from wildland interface fire

<sup>42</sup> The simulator uses digital projection technology to simulate fire conditions as well as the use and impacts of a fire extinguisher



using and refilling actual fire extinguishers in widespread training (which is desperately needed, even for VFDs) would soon exceed the cost of the simulator.

**Recommendation 64:** That the FMO purchase two digital fire extinguisher simulators that can be easily transported to, and deployed at, local community fire stations or other occupancies to provide realistic training to a broad spectrum of potential users.

No formal fire investigations are undertaken by YFS volunteers or chiefs. All investigations, outside of municipal borders, come under the authority and responsibility of the FMO or RCMP. In Yukon, RCMP will attend and determine fire cause to rule out arson, as required or at the request of the FMO. The practice of fire cause investigation goes far beyond arson, however. It is well documented that fire investigations have identified product malfunction or flaw that has resulted in recalls, remediation, or educational programming. Fire safety has improved exponentially worldwide, often as a result of good fire investigation identifying heretofore unknown causes.

The use of RCMP resources appears to have become customary practice for the FMO. Fewer FMO-led investigations are occurring annually despite no change in the legislated mandate. This practice has generated concern within the FMO itself, within RCMP, and certainly at the community level. The inaction of the FMO to assume responsibility for investigations was best exemplified in winter 2020/21 where the Keno Hotel, a home in Keno, and a third structure in another community all burned but were not investigated by the FMO. The FMO is failing in its required mandate to conduct fire cause investigations. The FMO must either initiate these investigations utilizing its own resources or contract out the role on its behalf.

**Recommendation 65:** That the FMO resume full responsibility for fire cause investigations for fires within YFS jurisdiction.

**Recommendation 66:** That the FMO ensure that all staff are appropriately trained to conduct such investigations OR that contractors, with the required training and experience, are utilized on behalf of the FMO to conduct fire cause investigations.

There are a number of specific locations present in unincorporated Yukon that should receive dedicated target hazard assessments from the FMO and local fire service. These typically include mining and highways operations but can also include work and recreational camps and lodges. While some may have their own internal resources to provide fire protection most will not and in the event of an incident will be calling 911 for assistance. These target hazard locations present unusual concerns, potentially pose an elevated risk to firefighter safety, or are not typically responded to by Yukon VFDs. A few departments have had conversations with site operators but no documented pre-incident response plans were produced by any VFD during the review process. Pre-incident assessments and plans aid in rapid, coordinated, safe, and effective response to specific challenges and are to be encouraged for locations of concern.

**Recommendation 67:** That the FMO lead a comprehensive review of all high-risk properties within Yukon and develop target hazard pre-incident plans and training for associated VFDs in all cases.

**Recommendation 68:** That the FMO designate a specific staff member to lead enhanced education and prevention programming.



## Records Management

Records management and processing at YG and the FMO is problematic. Some VFDs, including municipalities, appear to perform almost no records management function at all, instead deferring it to the FMO for completion. The reason always cited, regardless of department type, is “we have no time.” It is difficult to validate this rationale when considered against review findings and Fire Chief performance that Response Specialties has found in other jurisdictions with similar challenges.

Internally, both the Fire Payroll system and the Fire Reporting system have limitations and performance shortfalls. Neither program appears to have been created to meet the full spectrum of needs of the YFS and the FMO.

The payroll system failures are well documented and have resulted in numerous official complaints to YG, and a complaint to the Ombudsman related to delayed T-4's for volunteer firefighters. This is unacceptable for a government institution and must be rectified immediately.

**Recommendation 69:** That YG-ICT, and the FMO, develop, repair, or research and implement, a more effective and efficient fire payroll system.

The fire reporting system is limited in function and cannot complete basic database functionality such as batch reporting of summary reports for firefighter training records or downloading of the data as an excel spreadsheet document. This program was externally created by a contractor under FMO direction; apparently with little or no oversight by YG-ICT services. Currently, YG-ICT is working to correct flaws of which they are aware. As consultants, we do not believe the YG time or energy necessary should be wasted on this program. Numerous administrative management software programs, many web-based, are available commercially and would better suit the FMO.

**Recommendation 70:** That YG-ICT, and the FMO, research, purchase and implement a recognized third-party fire administration program to record, coordinate and report all data related to YFS operations.

Records management within VFDs is also a concern with respect to legislative compliance. Some departments are doing quite well while others demonstrate incomplete records management practices according to the FMO. Files important to records management in the fire service include personnel, training, incidents, health and safety, maintenance and testing, and payroll.

Numerous departments are not understanding, or acknowledging, the requirement to undertake comprehensive records management within their VFD in order to remain compliant with the OH&S Regulations, the *Motor Vehicles Act* and Regulation, and the *Access to Information and Protection of Privacy Act (ATIPP Act)*. Records management documentation deficits are known to be occurring related to comprehensive data entry of incident details and firefighter training; regular equipment inspections and maintenance; and vehicle pre- and post-trip inspections. Additionally, breaches appear to exist in the management of confidential records within departments. Personnel files and other sensitive documents are known to be insecure in unlocked file cabinets or offices without restricted access.

**Recommendation 71:** That the FMO establish mandatory secure filing processes for paper copies of all confidential records at each firehall, with restricted access. Further, that a formal records management program, which specifies document retention terms and conditions, must be used.

**Recommendation 72:** That the FMO engage with the YG-ICT services to enhance electronic submission and storage of records from VFDs.

**Recommendation 73:** That the YG initiate appropriate records management training for all Chief Officers and FMO staff.

## Keno City

During this review, the consultants visited Keno for a “town hall” meeting with residents. The meeting was attended by eight members of the community (approx. 50%). The community of Mendenhall was also similarly engaged through a town hall process. Both community meetings were positive in that participants were fully engaged, willingly expressed their concerns, and demonstrated open-mindedness to solutions.

There has been ongoing disagreement between YG and Keno residents since March 2012 over fire protection in the community. Keno, with a permanent population of around 20, had understandably not been able to maintain a fully functional volunteer fire department for a number of years previous. Following the resignation of the sole remaining member of the Keno VFD (the Fire Chief) in March 2012, the FMO closed the fire department as there were not adequate numbers of qualified and trained volunteers to operate safely. In April of 2019, the FMO removed the fire engine from the community after liability concerns about its continued presence and availability to non-YFS personnel were raised by YG legal counsel.

Over the many years there have been numerous discussions between Keno residents, the FMO, and YG related to restarting the fire department, providing alternative suppression equipment, or transitioning to prevention specialists and equipment. To date, no solution has been agreeable to all parties.

On December 11, 2020, the community of Keno was devastated by the complete destruction of the historic Keno Hotel by fire. Only a few weeks later, on February 10, 2021, a local resident’s home was also destroyed by fire. There were no fire suppression resources in Keno at the time, and assistance had to come from Mayo Volunteer Fire Department, with a response time of nearly one hour. As a result, Keno residents became increasingly political in their actions. They should take pride in knowing that they were instrumental in the development of the RFP to undertake this review.

The Keno residents who were engaged both through the town hall meeting and via telephone and Zoom provided many details on the history of fire protection in their community. They expressed significant distrust and animosity toward YG and especially the Fire Marshal. However, the town hall meeting was able to move quickly beyond the past to focus on the future, and practical solutions for Keno, and other similar communities.

Special attention was paid to the certainty that Keno could not realistically support a fully functioning volunteer fire department that met all required safety and training requirements. The Keno residents were especially concerned about the Keno Mining Museum which has priceless artifacts and a dry

sprinkler system installed that requires water to be supplied to it. It was readily apparent that alternate solutions were required that could capitalize on the local enthusiasm to keep the museum safe and the community self-sustaining. Specific enthusiasm was expressed by meeting participants toward the Fire Protection in a Box (FPIB) concept (discussed in a separate section of this report). The residents have already been attempting to create an ad hoc solution with limited success. They saw the value in the FPIB concept and recognize that it meets their local needs and expectations while also addressing the concerns of YG regarding safety and liability.

Another specific concern expressed by Keno residents early in the review process was the closure of their water well by YG, resulting in a lack of water available to fight fire, as necessary. Response Specialties ascertained, through communication with YG personnel responsible, that the existing water well is still functional, although the water has been determined to not meet potable water safety standards. The water is, however, adequate for firefighting purposes and has the potential to be used to trickle fill the firefighting water storage tanks within the Keno fire hall, if proper security to prohibit drinking can be instituted.

To move forward with respect to use of the well water for firefighting, the Yukon Government and its responsible representatives should carefully review this situation for legal and safety concerns and engage in discussions with representatives of Keno to discuss solutions. If possible, making the well active for replenishment of firefighting (non-potable) water only, with security measures and informational messaging in place to ensure it is not utilized for public drinking water consumption, would alleviate many concerns expressed by Keno residents with respect to local fire protection capability. The well water and existing storage tanks would be more than adequate to support a FPIB program in Keno.

Ultimately, the Keno residents want to feel safe from fire threat in their community. They have been aggressive, unrelenting and, at times, unrepentant, but they are genuine in their pursuit of solutions. It is time to move on from the past to find and implement innovative solutions that work for all parties.

The community of Keno is to be commended for their continued enthusiasm in this regard, as many other communities simply disengage from this type of issue until a serious incident occurs. Other communities in Yukon will directly benefit from the actions and efforts of the residents of Keno if recommendations contained in this report are implemented.

## **Unincorporated Yukon Fire Departments**

The following commentary and recommendations generally apply to the majority of unincorporated Yukon VFDs which comprise the YFS. The names of individual VFDs are avoided here to preserve departmental integrity but generally, the FMO is well aware of the performance of each VFD.

The 16 historic unincorporated area VFDs in the YFS were established relatively consistently but have evolved (or devolved) separately in terms of capabilities and services provided. These 16 departments represent, or have represented, local service areas / fire protection areas operated with varying degrees of autonomy and independence.

There are high performers, mostly located near Whitehorse, and there are others which have either closed, or should be closed because they do not have enough staff to safely respond to, and manage, an incident. A few VFDs practice additional discretionary services such as vehicle rescue.

### VFD Fire Chief Role

Local community Fire Chiefs are given the responsibility through the FMO to undertake recruiting and retention activities within their local VFD, as well as internal personnel management. They are also responsible to ensure firefighter training is occurring in alignment with the FMO training curriculum. Finally, they are responsible for emergency scene operations of their fire department.

Fire Chiefs are expected to independently investigate, monitor and resolve internal interpersonal or departmental situations that may arise. In practice, there are few chiefs who exercise these responsibilities fully, or even substantially. Often the FMO is engaged early for advice or direction with regard to conflict or other human resource matters. Most chiefs interviewed felt that they require assistance with various aspects of human resource management at the departmental level. A couple of chiefs, conversely, take it in the other direction by implementing policy and practice from their own workplace into the fire department without FMO consultation or agreement.

Not all Fire Chiefs appear designated as Local Assistants to the Fire Marshal and are therefore not authorized under the *Fire Prevention Act* to exercise the powers and authorities of the *Act* in their jurisdiction. In the absence of a designated Local Assistant the power and authority of the *Act* flows to the ranking RCMP officer. This could be interpreted to mean that the local VFD, or chief, may not exercise the powers of the *Act* (including right to enter, demolish, seize materials, etc.) without an RCMP officer present to authorize the action. Unless the Fire Chief is designated as a Local Assistant, they are likely unaware of the restrictive language in the *Act* and could incorrectly exercise the powers or authority, and risk liability. Additionally, most police officers will either not know the *Act's* authority or will be uncomfortable exercising it at an event they have no expertise in. Finally, the FMO will not have a representative on scene who could properly exercise the required authority to mitigate a serious emergency successfully, safely and without incurring potential liability. In all cases, operations and investigations could be compromised.

### VFD Recruiting

Volunteer firefighter recruitment is a challenge in virtually every jurisdiction of Canada and throughout the world. It becomes an even greater challenge in remote communities with smaller population bases and where potential members are required to work outside the community. Family commitments have always taken precedent, but in recent years recognition of the desire for “balanced lifestyles” is further challenging volunteerism. Volunteerism has been declining for a number of generations but has sharply waned within the past 10 years (Francis, J. and M. Jones, 2012).

YG does have general “Be A Hero” advertising to encourage volunteerism (Figure L). However, few, if any, other formal recruiting tools are directed at firefighting in Yukon and departments appear to recruit locally using historical methods as a rule, with a few departments being the exception and

exploring newer ideas. Fire Chiefs overwhelmingly reported frustration with the recruiting expectations placed upon them, and the challenges they continually present<sup>43</sup>.

Figure L. Source: Yukon Gov't



Figure M. Source: [www.answerthecall.ca](http://www.answerthecall.ca)



“Answer the Call” (Figure M) is a Canadian Association of Fire Chiefs (CAFC) recruitment tool that is endorsed by several provinces including BC. It uses “canned” messaging and imagery to reflect the local challenges. There is a set of images that can be used as well as documentation that can be personalized to the organization. The “canned” images can, and do, reflect volunteers across all demographics, and the FMO could add additional ones specific to Yukon such as First Nations and seniors. It has received significant support and it does not require considerable time or monetary investment.

**Recommendation 74:** That the FMO lead research into a YFS recruitment tool such as Answer the Call with a focus on Public Safety Announcements (PSA’s), social media content, and visual imaging.

First Nation participations is exceptionally low in YFS departments. There needs to be aggressive recruiting methods identified and instituted to change this. First Nations across Yukon are vulnerable to fire where there is either no fire protection present, or it is limited in nature. While participation in wildfire response appears strong (e.g., First Nations Wildfire organization) participation in structural fire protection is minimal. In discussions with several First Nation members who are volunteers with VFDs (YFS and municipal) it was identified that few Indigenous youth view structural firefighting as a legitimate career or worthwhile endeavor, especially as a volunteer. Support of First Nations involvement is a concern in all Canadian jurisdictions<sup>44</sup>.

At least two communities that were contacted, and which have larger First Nation populations, reported that the local YFS Fire Chief was somewhat of a negative influence on recruitment of Indigenous community members. Further, it was stated a number of times that in Yukon there is a reluctance to “volunteer” within First Nation people. The FMO, preferably in cooperation with YG and the Council of Yukon First Nations, need to research these issues and diligently work to identify

<sup>43</sup> See Question 10 of Appendix 7.

<sup>44</sup> See Questions 15-18 of Appendix 8.



solutions. The concern is not restricted to fire services, as both Yukon EMS and EMO identified that they have faced similar challenges. The FMO, like both EMS and EMO, must address the recurring concern that local First Nation participation may be impacted by local relationships and leadership within the services. These must be overcome, or leadership changed.

Neither the leadership of the respective departments, nor the FMO staff, believe that the volunteer-based service model has any negative other impact on recruitment or retention given the demographics and culture of the communities. However, all recognize that the limitations of the same demographics and cultures do play a role in limiting the number of potential available volunteers. Additionally, there are significant policy impediments to volunteering for those who may be older, not highly fit, have some medical concerns, and/or have a beard.

The FMO needs to become increasingly engaged in firefighter recruitment if the Yukon fire service is going to continue to endure. Time, effort, and limited supply for recruiting is placing increased stress on department leaders and they require FMO assistance. Development of a Yukon-wide recruiting program, complete with tools for local application would greatly assist VFDs. The Community Engagement survey revealed that 40% of respondents would like to become a volunteer firefighter but either cannot meet the existing medical/fitness requirements, or they do not know how to get involved<sup>45</sup>. Messaging and appropriate requirements are necessary for recruiting success.

**Recommendation 75:** That the FMO research and work with a small team of engaged representatives and experts to implement a comprehensive firefighter recruitment program, with special attention to Indigenous applicants. They should develop a “toolbox” for use by all communities and municipalities.

The FMO administers the hiring process once volunteer candidates are identified locally. The application process is well documented and described for applicants, but it is also daunting and slow. Many concerns and complaints were received by the consultants from YFS departments regarding this process. Detailed descriptions of exceedingly slow processing, loss of applications (or portions), delays in scheduling exams or medicals, and concerns with exposure of confidential personal information were heard. A review and revision of the hiring process is needed that streamlines the system to minimize the time interval between initial engagement and start of training. At present, multiple parties are engaged at YG during this process and it is very time consuming for FMO staff. Given advances in digital information management it is unclear why much of the hiring process remains paper based. The FMO should move toward a digital system for recruit enrollment that is managed singularly from the FMO office. This will require authorizations related to confidential information (Social Insurance Numbers, for example) but should be easily overcome.

**Recommendation 76:** That the FMO streamline and improve recruitment processing through development of a fully digital on-line system. Consider recruitment intake regularly, either annually or bi-annually.

Once volunteers are selected (“hired”), there is an FMO directed recruit firefighter training program. Each department should be in possession of the training materials, and evaluation instruments

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<sup>45</sup> See Question 13 of Appendix 7.



package. The FMO has attempted to facilitate the program so that it could be attended by recruits from multiple departments simultaneously. This would facilitate standardized training, regional knowledge, instructor development, and use of regional training facilities. It has not met with remarkable success according to Fire Chiefs.

**Recommendation 77:** That the FMO continue to develop and deliver a recruit training program, compliant to both Workers Compensation/OH&S and the Yukon Firefighter Training Standard, which can be delivered at both the regional and local levels. Delivery of instruction should be from recognized trainers from across the Yukon. The program must also address any and all requirements of “New or Young Workers” as applicable, and as identified by Yukon OH&S.

YG has adopted a general practice of identifying and utilizing “local talent” as a preferential hiring practice. This is to be commended and the YFS should become a partner in this vision. Many interviewees identified the need for creating innovative methods to attract youth to the volunteer fire service. A number of ideas on how to recruit youth were brought forward, but one stood out to us as consultants. Part of the attraction for youth to the fire service should be the development of a “feeder system” within YG. It is proposed that YG, in concert with the FMO, identify pathways in which youth who volunteer as firefighters could be provided continuing education, not just fire related, that would preferentially put them on a career pathway with the YG. The path would potentially lead from Explorer Firefighter, to volunteer firefighter, to seasonal YG employment, to full-time positions, including employment with Wildland Fire Management, or even Whitehorse Fire Department. The program should be further enhanced through recognition of volunteer firefighter training and experience toward academic credit in either high school or college. This type of system will require significant effort and innovative thinking, but the short and long-term benefits could be substantial.

**Recommendation 78:** That the FMO champion a “feeder” initiative within the YFS to encourage youth to volunteer as Explorers and firefighters. This may then, in turn, progress preferentially, to YG jobs (P/T and F/T). Youth should be further engaged with course credits to reflect work experience and training as firefighters.

**Recommendation 79:** That the FMO identify and empower a lead staff member to develop and implement a standardized and exhaustive YFS recruiting program.

### VFD Staffing and Organization

The FMO has identified a minimum staffing requirement for all new VFDs of 15 trained volunteers, six of whom must be available to respond. There are currently only three existing VFDs that meet these requirements in the YFS. The rationale for expectations of new departments that are far in excess of rules applied to existing ones is not well articulated by the FMO and is hard to justify.

The FMO’s required staffing numbers appear to arise from multiple fire service standards including NFPA 1720<sup>4</sup>, NFPA 1500<sup>31</sup> and the Fire Underwriters Survey of Canada (FUS). These numbers are unrealistic for Yukon, as is compliance to the Standards referenced.

Within NFPA 1720 the requirement for 15 firefighters is applied in the context of an interior fire attack in a standard residential home. NFPA 1720 is an aspirational standard for the volunteer fire service in North America that, to the consultant’s knowledge, is rarely ever fully complied with and

cannot reasonably be expected to be in the Yukon. The same applies to NFPA 1500, even for fully career fire services. FUS requires an active and trained roster of at least 15 firefighters who can respond to a residential structure fire in a single fire protection area in order to maintain their fire insurance protection grade. In Yukon, few if any communities have any type of FUS fire protection grade because their fire service, now and historically, does not meet even the lowest minimum requirements. In fact, there are no known FUS fire grades present for any Yukon unincorporated community going back to the last known records in 2006. See Appendix 6 for a description of the FUS fire grading system.

The reality of the YFS is that there needs to be realistic staffing expectations based upon local conditions and local capabilities. Given many communities are remote, often composed of more senior or transient populations, and limited in capability due to inadequate volunteerism, the expectations of the FMO need to change. Examples, such as in the Northwest Territories, (Figure N) exist whereby the fire department size and capability are dictated by a scale related to population. A similar level of staffing expectation is needed that reflects the uniqueness of Yukon yet is based in principle on firefighter safety, operational complexity, and level of firefighter training.

Figure N. Source: Criteria for Northwest Territory fire department staffing<sup>46</sup>.

**NFPA Recommended Minimum Staffing\*:**  
*\*based on community population totals*

Number of People	Minimum Staff
>1000	15
500-1000	10
<500	6

**Recommendation 80:** That the FMO establish within Policy the following VFD staffing requirements related to Level of Service and training. The staffing requirements should be: Basic Firefighter Level: 6 Volunteers – 3 available (4 if SCBA used); Advanced Firefighter Level: 8 volunteers – 4 available; Interior Firefighter (FF1) Level: 15 members – 7 available.

### VFD Incident Response

The FMO mandates an exposure protection-based response profile for fire suppression activities under its current minimum competency level for Basic Firefighter. This is a very appropriate service level for most, if not all, Yukon VFDs. Even still, some are struggling to comprehensively maintain compliance with this minimum standard.

Several VFDs undertake discretionary service delivery through provision of vehicle rescue. Other Fire Chiefs expressed desire to include additional services to their departments service delivery profile. However, when directly questioned, none of the chiefs could provide defensible statistical evidence to support such a decision (e.g., # of events), and for many it appears to simply be either a desire to

<sup>46</sup> Diagram supplied by the Fire Marshal of NWT and reproduced from NFPA 1720 Table 4.3.2 Staffing and Response Time

“do more for the community,” or an attempt to “improve morale through increased training.” Neither rationale passes the simple test of reasonableness when compared to cost and risk.

Decisions by VFDs to add discretionary services should be resisted by the FMO until, and only if, a comprehensive and statistically supported business case can be presented to support the change and the department can demonstrate an established and sufficient roster number to support the activity. It is further suggested that VFDs already providing discretionary services be required to retroactively produce supporting business cases in order to maintain FMO support and funding for them.

**Recommendation 81:** That the FMO should require comprehensive business cases and objective statistical facts to support any additional service request by a VFD beyond the identified “core” services of the Basic Firefighter level.

**Recommendation 82:** That the FMO should require a comprehensive business case to support continued involvement in any discretionary service being performed by a VFD.

The Yukon has an expansive response area, and when combined with geography, road access, seasonal weather, and responder availability, results in regular long response times often exceeding 30 minutes. This reality further validates the use of the Basic Firefighter training level Yukon-wide. The Basic level focuses exclusively on fire control through exposure protection. Firehalls in the expansive sections of Yukon are challenged with providing prompt response, but the lack of call volume, minimal resources (firefighters) available, and isolated locations preclude consideration of more facilities. It is rare that firefighters arrive at a scene before extensive fire damage has already occurred.

Response attendance by volunteer firefighters through use of personal vehicles must be prohibited. This is a profound safety issue that is researched and documented across North America. Driving to/from incidents is the #1 cause of firefighter injury and death. It is also a source of serious liability risk to YG as the governing body responsible. While the consultants found no evidence of this currently occurring, a number of comments were heard during the engagement process indicating there is some history and appetite for personal response in certain circumstances. The FMO must reinforce that this is unacceptable behavior and will not be tolerated.

Call volumes of the YFS departments vary widely from some responding to one call, or less, annually while others respond to approximately 40 annually. This large discrepancy contributes to differences in operational capability and services provided. Lack of responses may present a challenge for retention as most volunteers want to actually be engaged, rather than simply always practicing. This was mentioned on several occasions by Fire Chiefs during interviews. Solutions to this could include development of more diverse and challenging training scenarios and implementation of automatic aid for serious incidents.

**Recommendation 83:** That the FMO undertake a comprehensive review of all training programs with a view to developing stimulating, yet simple, training scenarios designed to challenge the volunteers and maintain engagement and morale.

Recording of incident details, as well as VFD actions at incidents, is not consistent. The FMO has provided each VFD with Command Boards<sup>47</sup> to record incident details accurately and comprehensively on scene. Companion incident record worksheets were not observed to be used. This results in the lack of a place to record ongoing response details for extended or complex incidents. VFDs are encouraged to photograph images of the Command Board on a regular basis to develop a running record of events. However, there are many times where detailed scene or witness observations are needing to be documented and a mechanism (i.e., a worksheet) should be available.

**Recommendation 84:** That a specific incident response worksheet template, supplementary to the Command Board, be created by the FMO to facilitate enhanced data collection at incident scenes.

Further, FMO staff report that some key details are not always being entered later into the FMO reporting database by chiefs or incident commanders. Tombstone data, such as locations, nature of incident, and responders usually exists, but too frequently insufficient detail is provided on scene observations, statements of witnesses, department activities, strategies and tactics used, outcomes expected and achieved, other agencies involved, and any concerns remaining. These are all vital pieces of information for every call and provide the VFD and FMO with a significant level of legal and liability protection. Failure to document these facts could potentially result in risk should the actions be contested or a complaint arise. The responsibility to ensure full documentation of every call lies directly with the incident commander and should be verified for each incident by the Fire Chief.

### Water Supply for firefighting

Water supply in all firehalls is good with most having over 50,000 litres (12,000 imperial gallons) of water stored in poly tanks within the facility (Figure O). These reservoir systems have direct filling capabilities installed whereby the trucks can be quickly refilled within the apparatus bay through either overhead or rear fill ports. This design is highly effective and serves the Yukon fire service well.



Figure O. Photo by Response Specialties

Very few YFS VFDs have access to a public water supply system (i.e., fire hydrants), nor is one ever likely to be installed in most areas. A few communities have portions of their response area covered by fire hydrants, generally those in close proximity to Whitehorse.

Drafting<sup>48</sup> water from a water body is a challenging endeavor at the best of times and is especially difficult when lakes or rivers are frozen over. Those VFDs that need to do it regularly are generally proficient at it. In winter, access must be obtained via cutting a hole through the ice surface and introducing a drafting supply hose. This can be time consuming and dangerous for firefighters. A solution that is gaining popularity in other jurisdictions is the placement of “dry hydrants” in

<sup>47</sup> A template document on an erasable white board to catalogue incident actions and information

<sup>48</sup> Drafting involves the suction of water by a fire appliance out of a water body and into a pump

proximity to good water supply sources. The dry hydrant is actually a pipe system that protrudes up from the ground and is attached underground to further piping that goes well out under the surface of a water body, and below known freeze depths. The dry hydrant can be attached to a portable pump or fire apparatus to draft water as opposed to having to get out into deep enough water or through ice. Dry hydrants would dramatically improve safety, speed, and guaranteed access to a clean water supply even when a water body is frozen over. Dry hydrants could be installed in areas that have public access and could also be positioned away from known traffic areas and obstructions. Consideration should be given to their installation and use. Appendix 10 provides information on Dry Fire Hydrant example specifications.

**Recommendation 85:** That FMO research and budget for (including grant opportunities) dry hydrant installations at appropriate water body/lake access points for all VFDs without a public water supply (hydrant) system. The locations should be identified in close collaboration with local VFDs.

## Municipal Fire Departments

There are eight municipal fire services in Yukon. By legislation, each is responsible for application of the *Fire Prevention Act*, and its contents, locally. Historically, however, there has been a transition of responsibility from the municipality to the FMO for many functions at most of these departments. Each municipal fire department, with the exception of Whitehorse, regularly engages and partners with the YFS under the FMO.

## Relationship with the Fire Marshal's Office

There are functional agreements between the FMO and each municipality. The FMO refers to these agreements as Mutual Aid Agreements. Most municipalities interviewed however, view them simply as Letters of Understanding (LOU). At least one of these documents remains unendorsed by the respective municipal government. All of the agreements demonstrate the dependence that the YFS, through the FMO, has on the municipal fire departments to augment Yukon-wide fire protection, including within areas where former YFS departments have closed. Without special response from municipal fire services many people and properties in unincorporated Yukon would effectively be without any fire protection at all. The relationship between the FMO, the YFS, and Whitehorse Fire must be repaired and partnerships with them enhanced for the betterment of all parties.

The agreements between the FMO and municipalities do not exhibit the traditional components of “mutual aid” where reciprocal response and services are expected. The current Yukon agreements are predicated upon municipal response to unincorporated areas outside municipal jurisdiction, on behalf of the YFS, because there is no timely response available from the YFS. In these agreements there is little chance that the relationship will be mutual or reciprocal in terms of incident response. Central to the current agreements is an understanding that the FMO will contribute “in lieu” to the municipality in return for their fire department response into FMO jurisdiction. This quid pro quo typically provides for the municipality to receive either some physical assets from the FMO, such as a fire apparatus, or the availability of training, logistical, or administrative support. Given this relationship, the municipal viewpoint of these being LOU’s rather than Mutual Aid Agreements appears valid and consideration to rename them should be given.



The FMO has established a practice of providing municipal fire services with fire apparatus with which to respond outside their jurisdiction on the FMO's behalf. These apparatus vary widely in age, applicability, and usefulness according to municipal Fire Chiefs and administrators interviewed. The apparatus are made available through the internal FMO fleet as units are either retired or as a result of closure of YFS firehalls, allowing the Fire Marshal to provide them to the municipality. These units are not identified as dedicated to the municipalities in the FMO fleet Capital Replacement Plan, and they remain a YG asset, but the municipalities view them as a perpetual benefit that will be replaced when due. There is no formal agreement on the allocation, use, or replacement of apparatus for municipal fire services, yet the FMO continues to place units into these departments. It occurs primarily as a good faith action to recognize the municipal partnership in covering a YFS jurisdiction incapable of servicing itself. There is significant financial and organizational risk associated with this ongoing activity and it should be internally validated by YG and properly supported if it is to continue.

Many municipalities have concern that their response out of jurisdiction is "expected" by the FMO, when legislatively there is no obligation whatsoever for the municipality to do so. Some municipal fire departments respond to over 75% of their total call volume outside their municipal boundaries. More typically, most respond to between 15-30% outside their jurisdiction. Regardless, this is a significant burden on the municipal department and there is a common belief that they are being taken advantage of.

**Recommendation 86:** That YG review the fleet management practices of the FMO and, in conjunction with the Association of Yukon Communities (AYC) and individual municipalities, develop a mutually agreeable understanding on provision, or not, of YG fleet apparatus to municipal fire services in order to carry out incident response outside the municipal boundary.

### Municipal VFD Legislation and Governance

Many of the municipal fire services depend upon FMO staff to perform fire safety inspections when they should be doing them internally, as per the legislation. This practice is long-standing, but it is unclear how it began. In 2011, Yukon municipalities informed government that they could no longer singularly provide full legislative compliance for fire protection. The Minister at the time then proclaimed that the YG would assume control of all municipal fire services. Many municipalities flatly stated that this decision was unacceptable. Discussions ensued which resulted in each municipality receiving an additional \$50,000 to their comprehensive municipal grant. The funds were designated to be specifically directed to fire services, but this did not occur in all cases. Recently, the \$50,000 was "undesignated" and rolled into the overall grant. The inability of many municipalities to properly operate their fire services remains, however.

A similar circumstance occurred in 2019/20 in relation to recreational pools in municipalities. Association of Yukon Communities (AYC) Resolution 20-AT-20 "Engaging Municipalities on Environmental Health Regulation" led to discussions with YG and other jurisdictions regarding safe operations of recreational pools, and specifically the legislative requirements involved. In summary, the municipalities believed that YG was imposing increasing regulatory requirements upon them that was making pool operation untenable. After consultation, it was realized that, in fact, there was no change in the regulations; they had always existed, but the municipalities had been unaware. This



appears to be exactly the case for fire safety inspections as most municipal CAO's and elected officials, and even FMO staff, did not realize that the legislated responsibility to perform fire safety inspections within a municipal jurisdiction has always been with the local government.

Municipalities need to start accepting and performing their required fire safety inspections, either internally or through contract. The FMO organizational model is not currently designed, organized, funded, or staffed to administer municipal fire safety inspections, or other activities. Additionally, liability for YG is currently attached to this concern.

Yukon EMO has had similar challenges related to their mandates and responsibilities. They reportedly pushed back against the municipalities to ensure that the responsibility was not being transitioned upward. Like special operations, for the FMO, this acceptance of responsibility again appears to be an example of instinctive departmental response to a perceived shortcoming while giving little consideration to strategic impacts in 5-10 years, or longer.

Unless municipalities can meet their legislated mandates, consideration should be to forgo local provision of fire services, in favour of joining the FMO's Yukon-wide fire service. The consultants uncovered significant interest within municipal government to explore this option. There could be many benefits to a municipality, including:

- reduced local costs to taxpayers (payroll, operations costs, capital costs)
- reduced demand upon the local Fire Chief (paid or volunteer)
- reduced local requirement for long-term strategic and financial planning
- enhanced asset management systems from YG
- opportunity for revenue generation through firehall leases
- increased access to evolving training standards and curriculums
- increased access to records management technologies and practice
- increased access to evolving recruitment and retention practices

For YG and the FMO, such a change would result in:

- enhanced liability and risk management for assets and practices they are already engaged in (such as fire safety inspections, apparatus provision and records management)
- eliminate participation in non-legislated activities by the FMO
- assurance of equitable Yukon-wide fire service delivery without the need for "agreements"
- inclusion of municipal assets into FMO infrastructure
- validation of current workload assessments and ability to staff the FMO accordingly

**Recommendation 87:** That YG, and the FMO, enter into discussions with the Association of Yukon Communities (AYC) in regard to opportunities for municipal fire protection functions to be able to voluntarily join the YFS.

Fire investigations also come under the authority and responsibility of the municipality under the *Fire Prevention Act*. Legislatively, all investigations should be performed by a local investigator; either the Fire Chief or other municipal staff, or a contractor to the municipality. In practice however, most are again being performed by FMO staff or RCMP personnel. Legislatively, this too should cease to occur.

## SUMMARY

It is important to state clearly at the outset that the FMO staff perform admirably, with little recognition or appreciation given, and they deserve more. The job is difficult and the staff work hard to keep the citizens of Yukon protected from fire through the YFS. However, they are struggling to maintain important levels of service.

The FMO, and the YFS at large, are at a cross-roads in the evolution of the Yukon fire service. Does the FMO step up, evolve, and move forward on the opportunities presented? Do YG and the YFS accept the current realities in Yukon, and adapt the fire service to meet the needs while also accepting the limitations? The answer to both is clear; they must happen in the short-term. In the longer-term there needs to be an unclouded vision developed. The generation of this review strongly identifies that the Yukon Government is prepared to move forward and embrace change and the YFS must follow their lead.

This review identified opportunities for improvement, and highlighted areas of strength. The foundation of the fire service within the Yukon is strong and historical, and while there are many recommendations, they should be viewed as a set of individual steps on the journey to a stronger organization. Many of the issues identified can be quickly resolved or will at least improve service or legislative compliance. The addressing of “low hanging fruit” within the recommendations will generate a positive attitude toward addressing the larger challenges, which, in turn, will lead to a broader mindset whereby they can be overcome.

The recommendations put forward by Response Specialties are direct because they are needed, but also fully recognize and empathize with the challenges ahead. The honest and forthright proposals we have provided will facilitate growth in the FMO and enhancement of fire protection in the YFS for many years to come.

The firefighters in Yukon all have an ardent desire to succeed and provide quality delivery of services to their community. The FMO needs to lead the evolution and meet the challenges head-on to ensure that:

- Community members will maintain “ownership” and pride in community fire protection.
- YG will minimize unnecessary risk exposure while simultaneously improving community and firefighter safety; a terrific win - win!
- Personal pride of VFD members and leaders will be maintained.
- Yukon government and community relations (including First Nations and municipalities) will be enhanced.
- Service delivery capability will meet actual requirements and capabilities of the community.
- New innovative solutions for struggling communities will be realized.

Response Specialties would again like to express our sincere appreciation to the Yukon government, and its staff, the FMO and YFS members, industry stakeholders and especially the many engaged citizens for the assistance and input we have received. Your combined integrity and efforts will be fundamental to the success of this review and the future of the Yukon Fire Service.

Response Specialties remains committed to assisting further, if required, with any aspect of the Yukon FMO and/or the Yukon Fire Service.

## **STRATEGIC RECOMMENDATIONS**

## Strategic Recommendation A: YFS Mandate Model Options

The following list provides discussion, merits and cautions regarding five options for future organization of Yukon Fire Services. The Options are numbered from most recommended to least. Each Option has benefits, shortcomings, challenges, changes required, and estimated financial impacts identified.

### Option 1 – Change to a singular YFS with community stations

This is the most recommended option. Initially there was concern about the elimination of local control and ownership. However, conversations with chiefs did not support that concern. The lack of engagement and desire to undertake more administration would indicate that most chiefs would willingly relinquish local responsibility to the FMO and allow them to do what they joined for, respond to calls and do training. Their continued involvement as a local leader of the department, for example as the Station Officer (or some other title), would likely be welcomed and embraced by most. Further, in discussions with CAO's and the AYC it is apparent that should Option1 be chosen, there would likely be several municipalities who would request transition of their own VFDs to the YFS, as they simply cannot meet the multitude of requirements by themselves. While possibly bumpy in the initial stages, the transition would likely proceed with few incidents and would meet with overall success.

<b>Benefits</b>	enhancement of the current model to reflect practices that are realistically already occurring in many communities; elimination of variation in local engagement by Fire Chiefs and standardization of recruiting and operational procedures; can maintain and better utilize current FMO staff and allow for inclusion of enhanced management skills desired by YG
<b>Shortcomings</b>	potential community resentment to perceived loss of local autonomy and identity (though actual conversations revealed that the opposite may occur); some Fire Chiefs may depart as a result of diminished responsibilities and status
<b>Challenges</b>	ensuring local engagement and pride is maintained for both the VFD and community; ensuring FMO capacities are increased to meet required increased workload; requirement to stand up a YFS wide recruiting program
<b>Changes required</b>	renaming of current VFDs to YFS Stations (e.g., YFS Station 6 – Marsh Lake) and identifying number and naming conventions for them; change in FMO organizational model and staffing as well as within the overall YFS organization; increased local engagement (including in-person) by FMO
<b>Financial Impact</b>	Estimated increased costs of \$300k related to recommended staffing additions in the FMO to meet current and anticipated workloads, as well as required competencies

### Option 2 – Maintain current mandate and organizational design

Option 2 would certainly be the easiest option to choose, but it is not recommended first because the existing mandate and organization have been demonstrated in this review as ineffective in many ways. The FMO currently does the vast majority of administration for YFS departments yet is somewhat hamstrung by the attitude and engagement of the locally appointed fire chief. Not all of the chiefs support the FMO, and others are not skilled at the role they have been appointed to. Maintaining the current mandate and organization would not assist in remedying these current challenges.

<b>Benefits</b>	known working system that meets general needs of most of Yukon; can be enhanced using many report recommendations
<b>Shortcomings</b>	system is becoming overtaxed with increased reliance upon FMO from municipal fire services and YFS Fire Chiefs
<b>Challenges</b>	ongoing political engagement related to provision of fire services in communities that cannot meet the operational or legislated requirements to have one
<b>Changes required</b>	resolution of level of responsibility and participation of FMO into non-mandate areas, and improved internal financial and risk management of the FMO
<b>Financial Impact</b>	Estimated increased costs of up to \$280k dependent upon recommended staffing additions in the FMO to meet current and anticipated workloads

### Option 3 – Change to a fully prevention-based mandate

Option 3 is used throughout Canada, and in Alaska. However, there is long-standing expectation for YG to provide unincorporated Yukon with formal fire protection. This entitlement attitude appears widespread and there is no evidence that communities are prepared to lose services. While this option may ultimately be the long-term goal, there will need to be sequential and incremental process changes along an extended path to get there. It is not the necessary solution to the current challenges in Yukon.

<b>Benefits</b>	known working system in all other jurisdictions in Canada and Alaska, and no requirement for staffing changes or increases as workloads would be expected to decrease
<b>Shortcomings</b>	major organizational and political shift in mandate likely to receive strong opposition at the community level from citizens, Fire Chiefs and elected officials; all responsibility will be shifted to the community to support and operate fire protection, including finance.
<b>Challenges</b>	legislative change is required, as well as comprehensive organizational shifts in responsibility, mandate, and determination of future funding and management models; the political will to cut services needs to exist
<b>Changes required</b>	complete revision of the mandate of the FMO and the role YG has in delivery of local public safety services; assumption of all responsibility by local representatives
<b>Financial Impact</b>	dramatic decrease in YG costs, offset by exponential increases at the local level. Hard to quantify exact amounts as there would likely be, at least transitionally, ongoing YG financial aid provided and the resultant affects would need to be assessed over time

#### Option 4 – Change to an amalgamated emergency service

Option 4 is used throughout North America and abroad through fire service amalgamations with EMS, Wildland Fire, and police. Not all are successful, but many are and have been in use for many years. Instructive though, is the current evidence that recent amalgamation efforts have been decidedly challenging and most ended up costing the jurisdictions and organizations more than the separate entities. This was primarily due to two items: one, standardization of union contracts where the highest value one almost always is agreed to; and two, perceived inequalities in service levels by communities and the demand to equalize them, usually at the level of the best services offered.

<b>Benefits</b>	well used system across North America and abroad involving either EMS or Wildland Fire Management (WFM) as a partner; consolidates many YG functions to achieve better organizational flexibility and exercise economies of scale
<b>Shortcomings</b>	major shift in organizational design, focus and structure; Yukon EMS and WFM are both in transition themselves and experiencing significant internal challenges
<b>Challenges</b>	political and internal governance-level appetites may not be present for such a fundamental shift; current organizational silos would need to be dismantled
<b>Changes required</b>	legislative, governance, and organizational redesign at all levels for all departments
<b>Financial Impact</b>	cost savings should be realized theoretically, but evidence from consolidations and mergers such as this in North America reveal few savings, and in some cases actual increases in cost

#### Option 5 – Change to municipality-driven regional fire service

Option 5 is not likely to have any chance of success, as many Yukon municipalities are also struggling mightily to even maintain their own functions. They simply could not take on the added burden of response to a much wider jurisdiction, higher call volume, and increased costs.

<b>Benefits</b>	allows for “local” governance and direction; reduces YG involvement and cost
<b>Shortcomings</b>	municipalities and regions are not financially solvent enough to support and govern such a structure; FMO would undergo a momentous change in mandate with reduced operational role
<b>Challenges</b>	some, or even all, municipalities may not wish to lead such a regional system, or may be incapable of doing so based upon their own current challenges with fire protection
<b>Changes required</b>	full legislative revision of FMO mandate and authority; transition of legislative power for unincorporated areas to municipalities respective of fire protection
<b>Financial Impact</b>	cost savings should be realized theoretically, but evidence from regionalization such as this in North America reveal few savings, some increases, and frequent infighting on cost allocations; local taxation will increase dramatically



## Strategic Recommendation B: Fire Prevention Act revisions

The *Fire Prevention Act* has not been reviewed and amended for many years. There are definite shortcomings to the current legislation that identify past practices that are either no longer undertaken, or current practices that are not identified. The following amendments are recommended:

1. That the *Act* require adoption of a formal **Level of Service** designation for each fire department, which will correlate directly with a training levels in the new Standard. The formal declaration of a Level of Service for operations and training of a local fire service is required whether part of the YFS or under municipal jurisdiction. It is the responsibility of each AHJ to select and declare fire department level of service, which in turn determines the training level competencies that its firefighters must meet.

The Level of Service must be commensurate with the training level of 75%, or more of the current active membership of the department. The Level of Service must identify the organizational response capabilities as represented by the Yukon Fire Service Training Curriculum and Standards. The FMO, as the AHJ for YFS, is responsible for setting and maintaining Levels of Service for each unincorporated community with a volunteer fire department. Municipal government would set their own fire department Levels of Service, as appropriate. Levels of Service may be amended as necessary based upon changing conditions or capabilities within the community or local fire service.

The Workers Compensation Health & Safety Board should expect that the Fire Marshal's Office will enforce adherence to Level of Service operational and training requirements.

The AHJ's decision as to the appropriate Level of Service and training for its fire service should include:

- general local conditions and expectations in the community,
  - consultation with representatives of the local fire service delivery organization,
  - continuous availability of resources (both human and physical) and the ability of those resources to respond,
  - realities of the community in terms of demographics, risks, travel distances, fire hall location, equipment, and staffing models, and
  - the ability of the AHJ to express to the FMO their capacity to support its fire department and enable it to meet all applicable training, safety, and operational requirements.
2. That the Yukon Fire Service Training Curriculum and Standards be identified as the Standard for Yukon firefighter training. (Strategic Recommendation C - within this review document proposes the same adoption for the OH&S Regulation). The Yukon Fire Marshal is indirectly authorized through the *Act* to identify and institute required firefighter training programs for all firefighters in Yukon. There needs to be an addition under the *Act* Duties of the fire marshal – Section 3, to specifically empower the Fire Marshal to establish and maintain minimum training standards.

3. Similar to the above, there is indirect authorization that the Fire Marshal is the Authority Having Jurisdiction over all YFS communities, unless within municipal jurisdiction. There needs to be clear wording establishing that authority under the *Act* Duties of the fire marshal – Section 3.
4. Institution of authority to establish benchmarks for minimum fire safety inspection frequencies in occupancies of all applicable types should be included within the *Act*. The Fire Marshal should be authorized to establish minimum standards in the interest of continued public safety within all Yukon jurisdictions.
5. Identification of unusual circumstances and authorities present within self-governing or treaty First Nations. Establishment of authority over fire protection legislation on First Nation lands is contentious and should be addressed within any amendment of the *Act*.
6. Clarity must be sought on the need for, and inclusion of, the Local Assistant to the Fire Marshal within the *Act*. In practice, it appears that these positions are not well implemented, understood, or facilitated within the Yukon. Analysis and justification should be sought to determine whether maintaining this role has merit in future editions of the *Act* or in the functioning of fire services in Yukon.

## Strategic Recommendation C: OH&S Regulation Amendment – Fire Service Training Standard

Response Specialties has reviewed the FMO Yukon Fire Training Standard against current NFPA Standards and associated best practice documents and recommends that the Yukon Fire Service Training Curriculum and Standards be adopted as the overall Yukon firefighter training Standard.

If this recommendation is endorsed by YG and the FMO, the FMO must prepare and submit a formal request for adoption of an “alternative Fire Service Training Standard” to be considered under OH&S Regulation Part 11.03. The current Standard is identified in Part 11.04 of the OH&S Regulation as NFPA 1001.

A formal request for adoption of an “alternative Yukon Fire Service Training Standard” must be prepared by the FMO, along with a detailed description of the FMO’s Fire Service Training Curriculum and Standards document. The submission must defend the merits and expectations of the FMO document in such a manner as to convince Yukon Workers Compensation and Health Board, and its OH&S section, that the submission meets all requirements and merits recognition as an appropriate alternate standard for firefighter training in Yukon.

Should an alternate standard status be granted, the Workers Compensation Health & Safety Board, the *Workers Compensation Act*, the *Occupational Health and Safety Act (OH&S Act)*, and its accompanying Regulation will all require re-alignment with the new Yukon Fire Service Training Standard. Under Section 11.03 of the OH&S Regulation the Yukon Fire Service Training Standard, as developed and implemented by the FMO, would be identified as the current Standard, replacing NFPA 1001.

The FMO document entitled “Yukon Fire Service Training Curriculum and Standards” is a competency-based ladder system that provides for a minimum level of sequential training and operational requirements that shall be met by each firefighter, as required. Established training standards are intended to provide an industry recognized minimum standard of training for firefighters, while ensuring personal safety at all times. The Yukon Fire Service Training Curriculum and Standards document is closely aligned in design and content to the *British Columbia Structure Firefighter Minimum Training Standard*, which further supports its use as a Standard for the Yukon.

## Strategic Recommendation D: Amendments to the Yukon Fire Service Training Curriculum and Standards

The current edition of the Training Curriculum and Standards has been in place for some time, with minor edits. Since the curriculum conception there has been the division of the document into three training levels: Basic, Advanced and FF1-Interior. After critical review of the document, its components and the applicable references in NFPA 1001 it appears that there should be consideration given to consolidating the program into two levels.

Within this recommendation for amendments to the Yukon Fire Service Training Curriculum and Standards there are two options available:

- YFS Training Standard Recommendation – 3 Level (current model with revisions)
- YFS Training Standard Recommendation – 2 Level (new model)

The **YFS Training Standard Recommendation – 3 Level** maintains the current design of the FMO curriculum into three levels of training (Basic, Advanced, and Interior).

This model has served the Yukon for over 15 years. For each training level it identifies and trains to applicable competencies contained within the NFPA 1001 Standard, as well as including Yukon specific training programs. While the 3 Level system works (see Appendix 11), and is entrenched in history within the YFS, it is recommended that the FMO give thoughtful consideration to moving to a 2-Level option.

The **YFS Training Standard Recommendation – 2 Level** changes the current design by removing the Advanced level and consolidating it into the remaining two levels (Basic and Interior).

Currently almost 77% of YFS firefighters are qualified to the Basic Firefighter Level or working towards it. A further 18% are qualified to the Interior Firefighter Level. Overall, 95% of current YFS firefighters only obtain either the Basic or FF1-Interior qualification. Data analysis of FMO training records for YFS volunteers identifies that qualification to the Advanced Level is extremely low, with only six firefighters (5% of YFS total) achieving Advanced Level qualification. A review of the competencies applied to this level also identify that the additional fireground skills obtained are minimal and that the majority of VFDs are performing many of the Advanced Level skills at the Basic Level.

Most of the skills trained in the Advanced Level are being used on a practical basis within the Basic Level. Both are focused on fire suppression from the exterior of structures. The accompanying guide in Appendix 12 illustrates how the Advanced Level skills should be incorporated into either the Basic or Interior Levels.

While either option should be functional, the elimination of the intermediate level, combined with allocation of those skills appropriately between the other two would appear to be more efficient and likely to be better utilized within the YFS.

### **Strategic Recommendation E: Basic Firefighter – SCBA optional classification**

The current Basic Firefighter training is established within the FMO's training curriculum and standard. It is recognized as the minimum standard required to be a firefighter in Yukon. However, there remains a number of impediments to volunteerism at this level that may be possible to overcome.

In discussions with the Fire Marshal for Northwest Territories (NWT), the consultants learned that the NWT fire service has a similar incremental training program to the Yukon. One notable difference is the opportunity for fire departments at their lowest operational level – Standard (Level 2 Defensive) – to either “opt-in” or “opt-out” of use of self-contained breathing apparatus (SCBA).

The rationale employed in the NWT is centered around the concept of exposure versus proximity firefighting. In NWT, firefighters and fire departments that practice only exposure fire suppression techniques are not required to train in, or use, SCBA so long as they practice avoidance and do not engage in any proximity structural firefighting activities as described by NFPA. This type of fireground activity is remarkably similar to the expectation of the Basic Firefighter level in Yukon.

The NWT decision to implement such a system did not come arbitrarily. The establishment of a comprehensive working group composed of fire service personnel, OH&S specialists, NWT OH&S regulators, and other stakeholders spent considerable time crafting an appropriate program.

The benefit of such a program is significant. There are many potential volunteers who either have an aversion to wearing a face mask (e.g., claustrophobia) or they cannot wear one correctly due to facial hair. It is well known in Yukon that SCBA use is infrequent, at best, in many VFDs. As a result, compliance and familiarity with its use is expected to be lower than desired. The removal of real or perceived impediments to volunteerism needs to be a priority for the FMO in light of dwindling volunteer numbers. As such, examples such as this need to be fully explored and considered.

The FMO should liaise with its counterpart in the NWT to understand the merits and intricacies of the opt-in or opt-out concept for SCBA use at the Basic Firefighter level in Yukon. Further, if this research warrants, the FMO should constitute a working group, including Yukon OH&S, to research criteria and discuss adoption of a similar program for Yukon.

## Strategic Recommendation F: Amendments to FMO Policy & Standard Operating Procedure (SOP)

### General Revisions

Within the established policy and SOP documentation provided to the consultants by the FMO there are concerns related to contradictions and inaccuracies. It is apparent that these issues have arisen because of a lack of consistent formatting, review, and process related to document creation and revision. The FMO should review and revise all policy and SOP manual documents. Further, they should adopt, and apply, the terminology conventions of Yukon OH&S for the terms Standard Operating Procedures (SOPs) and Standard Operational Guidelines (SOGs), and apply them, as appropriate, to all current and future YFS documents.

### Policy

General recommendations for all current FMO Policies are included within the following spreadsheet entitled **Recommended Revisions of FMO Policy documents**. Specific attention will be drawn here to Policy PPM 000 (Revised Aug 13, 2020) – Commissioning/Decommissioning a Volunteer Fire Department

In the Policy statement of this document, paragraph 1, it states:

“As per the *Fire Prevention Act (2002)*, the Yukon Fire Marshal is the Chief Fire Officer of the Yukon Fire Service, and the AHJ who assumes full responsibility for the operation and maintenance of ALL fire departments under the command of the Fire Marshal’s Office (FMO).”

In the section Commissioning of a Fire Department, line #4 states:

“The community’s fire department shall be known as a Volunteer Fire Department (VFD) and shall be overseen by the local government or fire society and follow the duly approved constitution and/or bylaws set out by the overseeing organization.”

There are two concerns here related to conflict and risk.

1. The *Fire Prevention Act* does not specifically identify the Fire Marshal as either the Chief Fire Marshal of the Yukon Fire Service nor the AHJ for all departments under their command. The Act and Policy must be in concert to provide for clear and definitive authority.
2. Line #4 implies that the local government or fire society presides over the local VFD. Clarity is required to accurately define the AHJ and remove any conflicting wording.

In the Policy statement of this document, paragraph 2, it states:

“Any and all requests for structural fire protection in a Yukon based community must be submitted to the FMO in writing via a government organization (e.g., municipalities or settled First Nation), or active and registered fire society that is in good standing as per the *Societies Act* (e.g., unincorporated communities). The written request shall clearly indicate *support from a minimum of ten percent of the property owning residents* (italics added) within the proposed fire protection area.”



The requirement that a “written request shall clearly indicate support from a minimum of ten percent of the property-owning residents within the proposed fire protection area” is in direct conflict with the conditions set forth in Policy PPM 006 which states that the applicant must demonstrate “the support of at least 50% of the residents of the proposed protection area”.

There cannot be two distinct set of requirements that relate to the same singularly crucial decision. These two Policies appear to have been written in isolation from each other. One needs to be removed, or both revised, as they primarily cover the same subject matter.

In the Procedure section of this document, it states:

“1. Once a written request is received from a government organization or registered fire society, the FMO will conduct an assessment of the community’s fire profile (risk) based on the following criteria:”

The list of criteria in Policy 000 once again conflicts with the list identified in Policy 006. This must be corrected.

“2. Based on the results of the community assessment, the FMO decides whether or not to commission a fire department and what *level of service* (italics added) it will have the capacity to provide. Once a decision is made, the FMO will communicate the decision in writing, to the requesting organization.”

There is currently no reference to Level of Service in any legislation respecting fire protection. While it is recommended within this report and is mentioned in at least one internal FMO document (*NFPA 1001 Yukon Fire Service Compliance - 2015* document), it is not formally recognized as a requirement and therefore should not be included as part of the formal assessment process. Level of Service will hopefully become part of the legislation as a result of recommendation from this report.

“5. The local government or registered society shall:

- iii. Maintain a *minimum* of 15 volunteer members at all times.
- iv. Maintain a *minimum* of 6 volunteer members who are trained and ready to respond at all times.
- v. Maintain a minimum of 6 volunteer members who hold a valid class 3 driver’s license with airbrakes.”

These benchmarks appear without mention to any established research or reference document. There are recommendations toward this issue contained within this report. The inclusion of such requirements within Policy should not be present without supporting documentation. Many of the operating YFS departments do not meet these staffing requirements. Most are not even close. Policy 006 further states “If the Volunteer Society, with the assistance of the Fire Marshal, is unable to return to the 15 volunteer standard within 180 days the Fire Marshal may decommission the local Volunteer Fire Department”. This simply is not happening. As per the “Decommissioning of a Fire Department” section of Policy 000, they should be closed immediately, but they have not been. The lack of equitable enforcement of documented Policy is patently unfair and rightfully exposes the YG to liability and risk related to FMO action/inaction on policy.

“7. As long as the VFD continues to meet all membership and training requirements; the local government or fire society remain in good standing; and the community’s fire profile remains unchanged, the FMO is committed to:

- i. Providing all necessary fire training;
- ii. Providing honoraria for all volunteers;
- iii. Providing a fire hall;
- iv. Providing all necessary fire apparatus;
- v. Providing all necessary firefighting equipment.”

FMO non-compliance with the wording in their own Policy is alarming. There are many examples of YFS departments that do not “continue(s) to meet all membership and training requirements,” yet the FMO continues to support them, often excessively, in direct conflict with this statement.

The Fire Marshal appears to be “risk managing” these continued operations of VFDs that do not come close to meeting realistic operational capabilities or the established FMO criteria. If a decision has been made to “risk manage” this issue by tolerating non-compliance in numerous communities, why have the requirements/policies not been modified? Why is there not a clarification statement to allow for the Fire Marshal to accept lesser capability as a matter of record, and in certain circumstances, under their authority? This non-compliance with established FMO policy should not be occurring and introduces liability and legal risk to YG.

### Standard Operating Procedures (SOPs)

There are a limited number of SOPs in place for the YFS; far fewer than other fire service organizations of similar complexity. OH&S requires documentation for all work practices. In the fire service, this typically requires a catalogue of procedures (SOPs, SOGs, or preferably both) that numbers well over 50, and up to 100. The YFS has far fewer and needs to add many important procedural documents to the manual.

Like the Policy documents of the FMO, there are numerous revisions required within the SOPs. General recommendations for all current FMO SOPs are included within the following spreadsheet entitled **Recommended Revisions of FMO SOP documents**.

Yukon OH&S utilizes terminology conventions that differentiate applicable times for use of the terms SOP and SOG. The FMO does not follow this convention and the resultant conflicting intent of the documents could lead to concerns related to OH&S compliance and enforcement. Future FMO practice should be to incorporate OH&S terminology conventions to all applicable documentation. It is recommended that the FMO seek OH&S expertise in determining which current documents should remain as SOPs, and which should be renamed as SOGs. Further, the same criteria should be applied to any, and all, missing procedural documents that need to be added.

## Recommended Revisions of FMO Policy documents.

Yukon Government PPM Review/Comments			
SOP #	Title	Date	Comments
PPM 000	Commissioning/Decommissioning a VFD	2013 Updated 2020	Definitions seem out of place - should not precede policy statement; Volunteer FD definition is incorrect; Do requests for fire protection included settled First Nations? Indian Act FN's? What about ISC/CIRNA?; How does the FMO Policy 000 apply to a municipality which is self-governing and can establish its own standards? 10% of owning residents vote to support - contradicts PPM006. With #5 Minimum training of twice a month - they may as well remove the tax credit reference (not enough time to qualify); #6 local government, society and VFD can legally buy and sell own assets....this contradicts current logistical management of YFS VFD's; Decommissioning...no timeline of the decommissioning. NFPA 1720 - The Yukon will never achieve this and should establish their own level
PPM 002	Conduct Expectations for Volunteer Members	2015 Update 2018	Definition area location out of place; Reference to the General Administrative Manual - where and what is this? Not seen by consultants; #2 is interesting that the FMO is responsible for training but c. requires volunteers responsible to be appropriately training and experienced; Rights of Volunteer Member's Families - "The YFS strictly adheres a national standard of safety" What standard?
PPM 003	Discipline	2015	#7 should have a human rights statement. Similar to PPM 017
PPM 004	Facial Hair	2015	Redundant with PPM 014. This needs reference to regulations requiring this behaviour (Eg OH&S Regulation)
PPM 005	Provision of Equipment	2015	Definitions out of place.
PPM 006	Criteria for the Provision of Fire Protection	2015	This states 50% of residents of proposed protection area - contradicts PPM 000; They are encouraged to register under the society act - contradicts Policy 000 which requires it; Needs to better consider levels of training and service; States 180 days to return to 15 members - not enforced at all
PPM 007	Provision of Service and Response Priority	2015	#1. No guarantee of service, not employees, volunteers - they are all members of the YFS under one AHJ & they are classified by OH&S as a worker/employee; #3. Chiefs may refuse to provide mutual aid? Is this not a YFS under one AHJ? Are these policies expected to be applied to local government too - how?;
PPM 008	Safety and Capacity	2015	Immunization #2 is interesting enforcement issue; what about COVID now?
PPM 009	Use of Fire Halls	2015 (dated wrong)	#2 the Local Assistant reference must also enforce the occupancy load
PPM 010	Operating Outside a Response Area	2015	This Policy appear ill conceived and unrealistic (both currently and under recommendations)
PPM 011	FD Tiered Response	2018 Updated 2018	How is this a Tiered response document? Where are the tiers? Seems more a Dispatch SOP; Procedure Whitehorse - is this actually occurring?; Does "gas leaks" include the CO issue?;
PPM 012	Urban Interface Fires	2017 Updated 2018	Definition area. #1 and #2 are referencing the WFM concerns not really FMO issues; Department list is out of date; Does Unified command happen with local VFD's? The FMO should assume this role.
PPM 013	Alcohol and Drugs	2020 Updated 2021	Definition area. Should this PPM be called Impairment???
PPM 014	Facial Hair and SCBA Use	2020 Updated 2021	Redundant in many aspects with PPM 004
PPM 015	Fire Department Funding	2020 Updated 2021	This is not about funding, it is about "swag" but incorrectly states it includes "Gear"?- does FMO not supply all "gear" for FF's?
PPM 016	Use of Fire Department Apparatus	2020 Updated 2021	Need a defensive or emergency vehicle driving program such as CEVO; #5 is misleading - actually reference MVA requirements (ie. weight limit of over 11,000kg for Class 3); should include reference to "Routine" response for drivers without an emergency vehicle operator course
PPM 017	Standards of Conduct, Investigation, and Discipline	2020 Update 2021	Similar to PPM 003 (somewhat redundant and should be combined?) but has additional references to General Administration Manual again; what discipline process is applied to volunteers? There must be a formal one per OH&S.
PPM 018	Young and New Volunteers	2021 Update 2021	This one appropriately has the definitions after the Purpose statement; Well written
PPM 019	Fire Explorer	2021 Updated 2021	Good Youth program.....

## Recommended Revisions of FMO SOP documents.

Yukon Government SOP Review/Comments			
SOP #	Title	Date	Comments
SOP 3.06	Mayday Procedures	2021	Also titled PPE 016 (which is also incorrect). RIT requirements from OHS?
SOP 3.07	PPE	2020 Updated 2021	Also titled SOP 000 - Decon Process needs an update, AHJ is the FMO so why not state FMO as referenced in SOP 0.01
YFS SOP 0.00	Cover	2018	is this necessary?
YFS SOP 0.01	Introduction	2018	Different template, a lot of references that are also used as a glossary
YFS SOP 0.02	Table of Contents	2018	Not an SOP, index of items seems limited
YFS SOP 1.00	Initial Recruitment	2016 Updated 2018	Drivers abstract check should occur annually; Requirement to report restriction or prohibitions from driving needed; YPAT and CPAT no longer used - delete
YFS SOP 1.01	Medical Examinations	2016 Updated 2018	Needs review and revision overall; Need to utilize community nursing station professionals for Basic Level medicals;
YFS SOP 1.02	Criminal Record Check	2017 Update 2018	Timeline for review of the 3 years, or if criminal charges are laid; Need requirement for reporting any charges against; Why is Drivers Abstract referenced here - remove - in its own SOP
YFS SOP 1.03	Driver's Abstract	2016 Updated 2018	Timeline for review should be annuals, or if any restrictions or prohibitions occur; Need requirement for reporting any restriction or prohibition;
YFS SOP 1.04	Physical Ability Type 2 Test	2015 Updated 2018	Is this still valid?
YFS SOP 1.05	YPAT	2015 Updated 2018	Is this still valid?
YFS SOP 1.06	Leave of Absence	2016 updated 2018	Requires a skills competency assessment for return, regardless of reason, after any extended period
YFS SOP 1.07	Release of Service	2016 Updated 2018	Talks about a periodic CRC and DA but is missing many other potential reasons; Refers to a Policy 003 - while not "employees, they are workers according to OH&S and Workers Compensation and therefore must be afforded due process.
YFS SOP 2.00	PPE - Usage	2016 Updated 2018	Missing references identified in document (OSHA); Why is OSHA referenced insteadon Yukon OH&S?
YFS SOP 2.01	PPE Care and Maintenance	2016 Updated 2018	No reference to Vapour testing which we believe is required every 6 months; No reference to required documentation of checks and cleaning
YFS SOP 2.02	SCBA	2016 Updated 2018	Should reference the Decon procedures
YFS SOP 2.03	SCBA Care	2016 Updated 2018	Do any cylinders require three year testing?; No reference to the CSA Standard regarding Stale Air
YFS SOP 2.04	Breathing Air Compressor Inspection	2017 Updated 2018	I would think SOPs 2.04 and 2.05 could be combined
YFS SOP 2.05	Fill Station Usage	2017 Updated 2018	Refers to reading the manual...how is this signed off?; Why the move to 4.5 systems given extremely limited use and minimal training in vast majority of departments?
YFS SOP 3.00	Carbon Monoxide Call Out	2016 Updated 2018	Is there a gas service provider in the Yukon who could respond? How long does a qualified technician takes to respond and what do the occupants do while waiting, especially in winter?
YFS SOP 3.01	CISM	2016 Updated 2018	No peer team identified. Uses Protective Services CISM front line members and YUKON EHS
YFS SOP 3.02	Wildland Fire Response	2018 Updated 2018	Not really clear on intent of this. Redundant to separate Policy?
YFS SOP 3.03	Urban Interface Stand-To	2010 Updated 2018	Name of file not same as document name; This is a Billing Policy more than an SOP; Does reference SOP 3.02 and the PPM 012 but what about the invoice sheet?
YFS SOP 3.04	Chimney and Wood Stove Fire Call	2018 Updated 2018	Needs a common sense statement of the placement of the metal container; This references a completion of an incident form not seen in SOP 3.00
YFS SOP 3.05	Incidents Involving Possible Communicable Disease	2020 Updated 2020	COVID Door check should be included; Decon process here but one for suppression activities not found
YFS SOP 3.06	Submitting a Claim to Worker's Compensation	2011 Updated 2020	How are ongoing or developing the mental health issues are being tracked? It states up to 12 months but Mental Health is different and it doesn't appear Workers Compensation, or the FMO, is up to speed
YFS SOP 3.07	Utilization of Central Dispatching	2020	Delta-1 call sign directly conflicts with ICS terminology for "delta" location at an incident; significantly out of date with VFD list (why list them at all?); Needs section for FMO duty officer call-out; What is revision cycle for this SOP as many numbers exist that could change?

## Strategic Recommendation G: Special Project Initiatives

For the purpose of this review and report the following special projects have been reviewed and specific recommendations made:

SHOT – Special Heavy Operations Team

SOMET – Special Operations Medical Extrication Team

EMBER Fire Academy

Wellness Programs

*Discussion and recommendations with respect to Delta 1, the current contract provider of fire dispatch for the YFS, is specifically addressed in Strategic Recommendation H.*

### SHOT – Special Heavy Operations Team

**It is recommended that SHOT remain operational until such time as appropriate alternative solutions can be identified.**

The Special Heavy Operations Team (SHOT) was developed to address identified gaps in provision of specialized response in the unincorporated Yukon. It is not an officially recognized program by YG-Protective Services, nor does it have designated budget allocations. The vision was for the team to respond, as needed and under the direction of the FMO, to incidents including technical rescue, hazardous materials spills, and structural fire protection at interface fires. The team is available 24/7/365 on call and is administered by the FMO. From its inception to time of writing of this report, SHOT has been only deployed twice (once for an encroaching interface fire, and once for a flipped compressed gas tanker on a highway). In neither occurrence did SHOT undertake significant actions that are unique to the team.

SHOT is composed of YFS members from various departments, mostly around greater Whitehorse, that possess, or are interested in obtaining, advanced technical skills. The FMO reports that all team members are FF1 qualified. Several have advanced level training in disciplines such as hazmat, technical rescue and structure protection unit (SPU) deployment. All are enthusiastic and self-motivated.

SHOT has designated fire apparatus (a rescue and an engine -Figure P) as well as a facility in the old Golden Horn firehall (Figure Q). SHOT has its own “Fire Chief” and officers distinct from any other YFS department. SHOT operations require budget allocation which has not formally been sought by the FMO, nor granted by YG. SHOT is funded through reallocation of otherwise specified GL funding.

The capabilities to perform specialized response are limited in greater Yukon. Whitehorse Fire (WHFD) does possess internal technical rescue and SPU capabilities, but not hazardous materials technician-level response. All YFS departments receive rudimentary training in interface fire response but have limited resources or training related to SPU deployment.

While the majority of YFS Fire Chiefs interviewed expressed indifference or open disdain for SHOT, there appears to be a legitimate need for the provision of some specialized response capability within Yukon and SHOT currently performs that expected role. However, there are potential options available.

Figure P. Photo by Response Specialties



Figure Q. Photo by Response Specialties



First, WHFD should be engaged to consider provision of Yukon-wide technical rescue response. Specific benefit to YFS would be provision through technically skilled and equipped career firefighters in Whitehorse. Of benefit to WHFD is those same individuals could maintain a higher level of technical skill through increased application and broader exposure to differing events. It could also potentially be a small revenue stream for the WHFD. However, the relationship between WHFD and the FMO (and local YFS VFDs) has been tenuous, or even adversarial. This is unfortunate as all parties have a great deal to give and gain if their differences can be resolved. Work should begin to resolve the relationship, for many reasons in addition to the SHOT situation.

Second, in many Canadian jurisdictions including BC, the responsibility for spill response is that of the transport carrier and industry response teams. They can provide response to all manner of hazmat incidents. This currently exists in Yukon and is used often, including in September 2021, given the heavy transport truck traffic on Yukon's major highways.

Typically, incidents involving transport of hazardous materials do not result in significant hazard or damage. Fortunately, response is usually limited to standby for fire ignition and clean-up or transfer of product. The former can usually be adequately provided by any VFD with exterior suppression capability, and the latter by contract clean-up teams from industry. The typical concern for fire services, and some others, is that private contractor response times can be extended and firefighters typically always associate a level of urgency with an event, even if it is not technically warranted. In the moment, YFS resources should respond and employ hazmat awareness level procedures (isolate and identify) until specialized resources can arrive on scene.

Third, Yukon has a dedicated and well-staffed Wildland Fire Management (WFM) organization. This organization is well resourced and trained and could develop increased internal capability to provide for SPU deployment in the interface as part of their overall mandate. This is warranted regardless of SHOT due to the serious lack of such training and resources within YFS departments and municipal VFDs.

Efforts to remove cost, risk, and liability from the YFS and YG should begin. Available, and potentially higher qualified, resources do exist and efforts to appropriately contract, or otherwise engage, them should be made in the best interest of public safety and internal risk management.



### **SOMET – Special Operations Medical Extrication Team**

**It is recommended that SOMET be transitioned entirely to the governance of Search and Rescue/RCMP.**

The Special Operations Medical Extrication Team (SOMET) was developed to address identified gaps in provision of specialized response to mountain rescue incidents. It is not an officially recognized program by YG-Protective Services, nor does it have designated budget allocations within the FMO.

It has an internal mandate to respond to, and provide assistance at, incidents requiring specialized medical care that cannot be otherwise provided by current Search and Rescue (SAR) organizations. Support of SOMET is very personal to the FMO Director/Fire Marshal. Since time of inception, the SOMET team has performed several recorded missions annually, all with successful results.

SOMET is composed of skilled individuals from a broad spectrum of backgrounds and employment, both within and outside YG. Membership in the team requires highly specialized mountaineering skills, combined with medical or rescue expertise. The team is available 24/7/365 on call and is jointly administered by the FMO and Yukon EMS.

The RCMP has the legislated authority to manage and deploy SAR capability. However, the RCMP's involvement with SOMET has been uncertain, and the overall governance and responsibility for the SOMET team has been contentious. Discussions are ongoing and as recent as during this review.

In nearly all jurisdictions in Canada, SAR comes under the legislated mandate of police forces or Canadian Forces, except within municipal jurisdictions where local bylaw may include other organizations in the governance. Typically, volunteer SAR team members, who are tasked by either police or Canadian Forces, are part of the Emergency Measures Organization (EMO) of the territorial or provincial government. SOMET is not.

SOMET has designated equipment and stores, as well as its own "Chief" and officers distinct from any other YFS department or YG organization. SOMET operations require budget allocation which has not formally been sought by the FMO, nor granted by YG. SOMET is funded through reallocation of otherwise specified GL funding within the FMO.

While SOMET may well have capabilities beyond most volunteer SAR teams in Yukon, it cannot be considered as separate from the Search and Rescue mandate under Yukon legislation. YG, through cooperation between EMO and the FMO, should identify a method to capture the advanced skills of the SOMET members within the SAR organizations in Yukon. One consideration could be to develop an EMO-based "Yukon SAR special rescue team" for particularly challenging operations. Regardless of method, the current legislation is clear that the RCMP have a governance mandate over these missions and should therefore manage the response capability along with their SAR counterparts.

### **EMBER Fire Academy**

**It is recommended that the EMBER Fire Academy be officially recognized and funded by YG.**

The EMBER Fire Academy is a valuable and effective means to enhance recruitment of young women into Yukon fire services. The program is designed in a manner similar to programs targeted at women in

other jurisdictions of Canada. EMBER is administered by the FMO but is not an officially recognized program by YG-Protective Services, nor does it have designated budget allocations.

EMBER annually trains approximately 12 female recruits using 12-15 staff (most, if not all are female as well). The academy is typically held at a couple of the southern lakes VFDs (Golden Horn and Carcross most recently). The curriculum involves most of the Yukon Fire Service Training Curriculum for the Basic Firefighter, plus other subjects such as cultural awareness. The intent of the program is to develop interest in firefighting amongst Yukon female youth, as well as to provide them with the confidence with which to pursue further involvement as a YFS firefighter.

Reviews from recruits having completed the program are positive. The staff gets tremendous satisfaction from the program and its outcomes. Numerous current female YFS firefighters began their fire service experience at the EMBER Fire Academy. It appears to be a great program, undertaken for all the right reasons, and it should be officially recognized and funded appropriately by YG.

### **Firefighter Wellness Program**

**It is recommended that Firefighter Wellness Programming be officially recognized, and funded appropriately, by YG.**

The firefighting environment, regardless of location, predisposes individuals engaged in response to experience physical and emotional stresses not experienced by many other occupations. Wellness Programs are an effective and essential tool in the maintenance of a healthy and effective fire service.

The fire service, along with other emergency service organizations, are prioritizing the health and wellness of their staff to ensure they have long and meaningful careers. The effects of environmental and internal stressors, such as exposure to horrific scenes, Post-traumatic stress (PTSD) and physical injury, have come under increasing scrutiny and awareness is being raised through major public service messaging on national media. Most programs are designed for primary responders, not administrators.

Wellness Programming can take many forms. Physical fitness and proper nutrition is advocated for all emergency responders as a way to effectively manage regular stress and body health. Mental health programs and counselling are made available for PTSD, addiction, and other emotional challenges to provide additional assistance to those who need it. Organizational programs such as Critical Incident Defusing and Debriefing are important initial actions after a traumatic event. Failure to intervene promptly is known to significantly increase both the impact, and length, of effects.

All programs that support and enhance the capabilities and health of the most valuable resource in firefighting, our people, must be supported. The FMO, as the AHJ for the YFS, must develop, maintain and lead these programs, ensure their availability, and deliver them to all FMO staff and YFS firefighters. The FMO should also continuously search out new effective programming to enhance these efforts.

Partnership with other YFS agencies, such as EMS and EMO, would be beneficial as few responders ever experience trauma alone. The understanding and appreciation that others have experienced it with them, can be cathartic or even improve the healing/coping process. Yukon EMS and RCMP are both known to have internal capabilities for intervention that could assist wellness program delivery in Yukon. The FMO must take care not to abuse the privilege of such programs internally.

## Strategic Recommendation H: Fire Dispatch

The current provider, Delta-1, provides dispatch services for at least 17 fire services in Yukon, as well as numerous other YG organizations. The service contract originated within YG Department of Environment, and the FMO eventually signed on with them. There is no official budget allocation or contract between FMO and Delta-1. The FMO again utilizes reallocation of other GL funding to pay for the services. The FMO is funding the participation of all the YFS departments on the system and appears to be subsidizing municipal ones as well. Determination of an appropriate provider is not within the scope or purview of this review. However, identifying essential requirements, such as contract language, and regulatory and best practice compliance, is.

To ensure that emergency responses can occur in an uninterrupted and timely manner the Fire Marshal's Office must ensure that any fire dispatch and communication provider is following all established industry best-practice standards for any facilities, communication technology or dispatch performance. All requirements must be identified within the agreement contract and be regularly reported on for compliance.

Recommendation details:

1. Dispatching services must be located in a facility, preferably a permanent and purpose-built structure, which provides for enhanced resiliency, sustainability, and protection against critical system failure as a result of human or natural causes such as fire, weather, and technological attack. This requirement also applies to Yukon-wide communications infrastructure and software systems. As requirements of dispatch/communication information changes with risk concerns and technology improvements, the communications center shall provide regular recommendations for change to the Fire Marshal's Office.
2. The provider must provide response to all requests for information, both internally and externally, which reference response standards and dispatch times.
3. Change the current dispatch call-sign designation ("Delta-1") to "Dispatch" or "Fire Dispatch". The term Delta is an integral component of the Incident Command System used within incident size up and work group (Division) call signs. Use of a company name is not appropriate for a public safety emergency service function.
4. That an YG-led executive committee be established to ensure that any Dispatch provider and building undergo periodic reviews of technology, training requirements and best practices.
5. That a dispatch user group be formed to provide for a mechanism to communicate concerns and ideas to the dispatch provider, and further, that this group meet at least twice annually.

The following documents shall be used to guide the minimum fire dispatch requirements necessary:

- NFPA® 1061 Standard for Public Safety Telecommunications Personnel —Professional Qualifications
- NFPA® 1221 Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems (Chapters 12-16)
- NFPA® 1225 Standard for Emergency Services Communications, 2022 Edition
- Various publications and best practices as described by the Association of Public-Safety Communications Officials Canada (APCO-Canada)

### Strategic Recommendation I: First Nation Fire Protection unique opportunity

Throughout Canada there are many examples of First Nations administering and operating their own fire protection organizations. In British Columbia, for example, First Nations such as the Okanagan Indian Band operate firehalls and provide a wide range of services within their established jurisdictions. Some engage in Municipal Type Service Agreements with neighbouring non-Indigenous communities. The National Indigenous Fire Safety Council Project is underway through the guidance of the Aboriginal Firefighters Association of Canada and representatives of many other agencies including the Canadian Association of Fire Chiefs. One of the main goals of the project is to facilitate *Community Fire Services Capacity* within Indigenous communities. In Yukon there is an exceptionally low participation level in YFS departments from First Nations. This is a concern due to the high percentage of First Nations people throughout Yukon. As described elsewhere in the report, aggressive recruiting and education needs to be led by the FMO to facilitate greater First Nation participation.

At Pelly Crossing the Selkirk First Nation is working hard to re-establish their local fire department after many years of it being closed down. Historically a member of the YFS, the Selkirk First Nation is now actively researching the opportunity to stand up a territorial fire department of their own on their self-governing lands. Discussions between the consultants and the nation revealed that they have a solid chance to make it work. It was recommended that they pursue exploratory conversations with experts within the First Nations' Emergency Services Society (FNESS) of BC, and other Indigenous fire services in Canada. Our understanding is that the Selkirk First Nation will be aggressively doing so over the next several months.

The creation of an autonomous First Nation fire service in Selkirk/Pelly Crossing would bring benefits to both the First Nation (FN) as well as the greater Yukon, including:

1. Ability for FN to engage local FN members to join a cultural organization dedicated to safety of its people.
2. Ability for FN to establish its own criteria and restrictions for membership that are separate and distinct from those imposed by YG (though OH&S requirements still apply).
3. Ability for FN to establish a unique system for remuneration and/or appreciation.
4. Ability for FN to provide opportunity for local youth to learn transferrable skills and earn money.
5. Ability for FN to pursue service agreement contracts with neighbouring non-Indigenous communities without fire protection.
6. Establishment of the Selkirk FN as a leader in Yukon First Nation innovation with the possibility that they become a beachhead for development of similar services in other First Nation communities such as the Kaska Dena FN (Ross River), Carcross Tagish FN (Carcross and Tagish), and Vuntut Gwitch'in FN (Old Crow).
7. Shift of responsibility for local services to the FN from the Yukon Government.
8. Opportunity for YG, and the FMO, to engage and partner with an entirely unique fire service.
9. Increased opportunity for Yukon FN's, regardless of governance, to partner with YG and local communities in a meaningful manner.

YG, and the FMO, should provide any assistance requested by Selkirk First Nation in their quest to research and potentially establish Yukon's inaugural dedicated First Nation fire department.

## Strategic Recommendation J: FMO Financial Practices

That the YG undertake an Internal Financial Audit and a Procurement Processes Audit of the FMO and institute enhanced fiscal management capabilities within the FMO.

The FMO demonstrates financial practices that are not consistent with YG or general accounting principles and practice. There are significant long-standing practices that appear to predate the current management team and demonstrate a lack of awareness, or appreciation, or both of the required fiscal management expectations of a YG organization.

The FMO has maintained the same Operations & Maintenance Budget for at least 6 years according to both FMO and Finance Department staff. During that same period numerous changes have occurred to the mandate, operations, programs and staffing of the FMO. It has been identified by numerous YG staff outside the FMO, including finance and senior management, that despite repeated attempts to draw attention to the flawed financial practices in use, there remains no fundamental adjustment in practice. Until very recently, there is no known submission of comprehensive management board budget requests related to these new initiatives.

The financial practices within the FMO appear to be long-standing, and there does not appear to have been concerted efforts made to move toward with a more diverse management profile to address the concerns. There is little, if any, expertise within the FMO staff related to budgeting or fiscal management outside the Finance/Admin Clerk. It does not appear that senior YG staff have provided the necessary levels of mentorship, guidance, or direction for the required competencies, or if it has they have been disregarded or misunderstood.

The FMO regularly reallocates monies from existing General Ledger (GL) accounts toward other unfunded areas. While not an entirely uncommon or unwarranted practice, it should be utilized for emerging needs only and not as a standard practice that repeats itself annually. Further, many of these reallocations are directed toward programs and items that are not officially established and do not appear as ubiquitous line items within the departmental budget document. Examples of this include Dispatch, Specialty Teams (SOMMET and SHOT), wellness programs, and the EMBER fire academy. These programs utilize significant O&M funding, yet all monies for them are currently reallocated from other established GL accounts, some of which are stale, and tracking of these changes is difficult and obtuse. In the event of audit, it is likely that numerous infractions of proper practice and procedure will be uncovered.

To remedy this situation, the use of experienced, qualified, and empowered staff is essential. The introduction of external expertise is likely required, but this could be challenging as much FMO operation requires intimate familiarity with unique fire service challenges. Finding personnel who possesses both operational experience as well as advanced financial aptitude and competency is likely to be difficult. Training existing staff appropriately would be a lengthy process and may be challenging.

### **Strategic Recommendation K: FMO Risk Management Practices**

That the YG consider undertaking an Enterprise Risk Management Review of the Fire Marshal's Office to fully identify risks to FMO operations, other YG functions, and associated organizations that may be present or could arise as a result of FMO practice.

Enterprise Risk Management is undertaken to identify risks within a branch of YG, as well as interdependencies that may exist. As part of the Yukon Fire Service Review many aspects of risk assessment and management have been assessed. However, the scope of such assessment and any recommendations are primarily limited to the FMO and its subordinate volunteer fire departments.

Wider assessment of other impacted YG departments or functions, or those outside of YG, was only superficially considered. As a result, it would be prudent for YG to deploy its own internal Enterprise Risk Management program to further identify potential challenges. This broader review must, however, consider the recommendations contained within this report as well as any implementations that are likely to result. If an internal review were to occur without consideration for this report duplication or confusion would likely arise.

Areas of review outside of YG should encompass municipalities, the private sector (e.g., Delta-1), Local Community Associations, allied emergency response agencies, legislators and regulators, and elected officials.



## Strategic Recommendation L: FMO Asset Management

The need for centralized equipment stores for asset management should be considered by the Fire Marshal's Office. Established procurement and stores analytics to set a minimum number of consumable and replacement items should be utilized. Focus should be on items that have historically required frequent replacement, experienced "out of service" periods, or are critical to ensuring response. Fire departments should be able to request expedited replacement equipment from stores, rather than the current system of "as required" purchasing which has resulted in a number of documented delays. The items to be considered for general stores shall be, but not limited to, the following:

- PPE – Gloves, Balaclavas, Helmets, Helmet Liners, Boots, Coveralls, Protective jackets, and pants
- ground ladders
- flashlights
- pike poles, axes, and other forcible entry tools
- tools, appliances, and nozzles
- fire hose (supply and handline) – 500 ft of each
- shovels, ice augers and other snow removal equipment
- spare equipment for out of service items sent away for repair – e.g., Hydraulic Extrication Equipment
- fire extinguishers
- smoke alarms and carbon monoxide (CO) detectors

To better facilitate this, it is recommended that the FMO directly coordinate through WFM with the WFM Central Stores/Inventory, its trained staff, and their inventory control system to help streamline the asset management system for structural firefighting equipment. While informal discussions have occurred in this regard previously, no established practice or relationship exists.

Further cooperation with specialists within WFM could assist in procurement processes and practice for the FMO. There is a lack of expertise within FMO currently, with basic training being undertaken only recently to meet minimum competencies required of YG procurement practice. Utilization of existing expertise within WFM benefits YG in general, and the FMO specifically. Capacity within WFM would need to be assessed and, if required, additional resources requested.

## Strategic Recommendation M: FMO Fleet Re-configuration

The Fire Marshal's Office has been able to maintain a rather young fleet as it relates to NFPA standards and Fire Underwriter Survey requirements; though neither of these regulators are required to be adhered to by current legislation. In association with the recommendations related to establishment of Levels of Service, and the staffing requirements for each level, it is recommended that the FMO reconfigure its fleet composition to better reflect the capabilities and needs of its fire services at the various Levels of Service. Fleet transition, as a reflection of vehicle lifespans involved, will require long-term planning and implementation.

Additionally, transition to this fleet profile will enable use of Class 5 with airbrake license holders to operate many apparatus, especially in smaller departments.

It is recommended that the number, size, and type of fire apparatus at each fire station be directly tied to the Level of Service in the following manner:

**Basic Level of Service (No SCBA)** – 1 wildland-type engine with minimum 2000-litre water tank (Figure R)

**Basic Level of Service (SCBA) and Advanced Level** – 1 Tender/Engine as per current FMO design + 1 mini-pumper with minimum 1200-litre water tank (Figures S & T)

**Interior Level of Service** - 1 Tender/Engine as per current FMO design + 1 Structural Engine as per current FMO design

All units identified should seat a minimum of 4-5 personnel (4 door)

All existing pump sizes/capacities should be maintained for large apparatus

All mini-pumper or forestry engine apparatus should be 4X4 chassis

Provision of utility vehicles (4X4 pick-up or SUV) should apply only to departments with either:

- 8+ qualified personnel
- authorized vehicle extrication/rescue capability with hydraulic rescue tools

Some example images of proposed new apparatus types are included here.

Source: All images reproduced from Fort Garry Fire Trucks website. [www.fgft.com](http://www.fgft.com).

Figure R. Wildland-type engine



Figure S. Mini-pumper/wildland



Figure T. Mini-pumper



Widespread use of utility vehicles by Fire Chief's, and for department travel should be reconsidered and consideration given to pooling staff for travel utilizing designated utility vehicles. Chiefs should ride aboard major fire apparatus to incidents to provide direction, mentorship, and instruction.

Given the current fleet composition and age, a strategic change plan should initially be the primary goal, with implementation occurring over the period 2022 – 2032. The change will result in enhancements for all parties. The individual fire department will benefit from the reduction in the size of vehicles which will increase the abilities of the fire hall to maintain driver/operators with a Class 5 drivers license, with or without an air brake endorsement, rather than the more extensive current requirements of the Class 3. The change will also result in standardization rationalization for the FMO which improves servicing time and cost, improved interchangeability of apparatus between halls, and decreases capital budget requirements.

The rationale for change also results in the apparatus allocations appropriately reflecting the actual level of service capabilities and capacities of each fire department. Currently, there are numerous firehalls with more equipment than personnel, or far more seats than personnel. The new fleet would also better fit into current facilities. Firehalls with fewer than 4 members typically responding do not require large structural engines with multiple handlines.

All applicable apparatus would still be required to undergo ULC pump testing/rating and should meet the required list for the NFPA, CAN/ULC equipment on each apparatus type.

All vehicles must be designed to accommodate overhead or rear water fill capabilities at firehalls, and have a front bumper mounted remote control turret nozzle.

Firefighting equipment to be carried on each applicable apparatus is found in NFPA 1901, 2016 Ed., and CAN/ULC-S515-04.

Additional Apparatus Equipment to be considered but not required by NFPA 1901 or CAN-ULC S515-04)

- One (1) 3 ft to 4 ft (1 m to 1.2 m) plaster hooks with D-handle, nonconductive
- One (1) crowbar
- One (1) Halligan tool
- One (1) 12 lbs. (5 kg) sledgehammers
- One (1) pair of bolt cutters, 24 in. (0.6 m) minimum
- One (1) Large diameter hose (LDH) Hose Clamp
- One (1) Gated Wye 2 ½" -> 1 ½"
- One (1) Thermal imaging camera
- One (1) Positive Pressure Fan (gas or electric) w/ fuel can or spare battery
- One (1) Vent Saw (Chain Saw) w/ spare chain, Chainsaw pants/chaps, hearing protection
- Absorball w/ Pail and scoop and/or oil absorbent pads
- Two (2) Foam Inductors 1 ½" (38mm) and Class A Foam Concentrate (2 buckets per apparatus + reserve at firehall)
- One (1) box of tools to include the following:
  - One (1) hacksaw with three (3) blades
  - One (1) keyhole saw
  - One (1) 12 in. (0.3 m) pipe wrench
  - One (1) 24 in. (0.6 m) pipe wrench
  - One (1) ballpeen hammer
  - One (1) pair of tin snips

- One (1) pair of pliers
- One (1) pair of lineman's pliers
- Assorted types and sizes of screwdrivers
- Assorted adjustable wrenches
- A 'universal' tool kit could be suitable in place of the items above

Wildland Equipment – Optional or Additional (Not Required by NFPA/CAN-ULC/OH&S Reg Part 11)

- Two (2) Fire Shovel, Straight Handle 42"
- Two (2) Pulaski Tools
- Two (2) Brush Brooms
- Two (2) Collapsible Wildland Fire Pump (Backpack)

## Strategic Recommendation N: Amendment to the OH&S Regulation for PPE lifespan

The Yukon OH&S Regulation is nearing a period whereby review and revision is warranted. Within this review there is a suggested amendment relative to firefighter Personal Protective Ensemble (PPE) lifespan and use.

The OH&S Regulation, Section states

- "11.06 (1)** Firefighters actively engaged in firefighting activities, or who are or may be exposed to hazards associated with firefighting other than forest firefighting, shall wear full protective equipment including helmet, coat, pants, hood, gloves, boots and face shield, which meet the following requirements:
- (a) *NFPA 1971, current edition, Protective Clothing for Structural Firefighting,*
  - (b) *CAN/CGSB Standard 155.1-2001, Firefighters' Protective Clothing for Protection Against Heat and Flame,*
  - (c) or other similar standards acceptable to the director."

This above description appears somewhat in conflict with specific wording within NFPA Standards 1971, 1972 and 1973. NFPA 1971 as well as NFPA 1972 and NFPA 1973 each describe that adherence to the applicable Standard for PPE is specifically required for PPE worn by:

*"... firefighters required to approach the seat of a fire or enter a structure or other hazardous area (italics added) during an incident."*

Given that the Yukon Firefighter Training Standard, at the Basic Firefighter Level, is only trained for safe operations from the exterior of a structure or object and that they must not enter the IDLH (immediately hazardous to life and health) environment, by NFPA definition it would appear that use of PPE for Basic Firefighter level response would be exempt from NFPA Standards for PPE lifespan and replacement.

Replacement of PPE is a large financial burden on YG. The YFS has 150-200 sets of PPE at approx.. \$3500 per set. Should the 10-year replacement requirement contained within NFPA 1971 not be applicable for the Basic Firefighter Level, significant saving would be achieved that could further facilitate other important safety and operational capabilities of YFS volunteer firefighters. The review process revealed that high numbers of departmental PPE are reaching current 10-year end of life with minimal use and no obvious wear and tear.

## Strategic Recommendation O: Fire Protection in a Box (FPIB) Concept

The Fire Protection in a Box (FPIB) concept arises organically from the need for smaller communities, unable to support a functioning fire department, to still be able to maintain a level of self-sufficiency with regard to control of fire. The actual design is based upon programs that originated in both Alaska and in British Columbia First Nation communities. It is perfectly suited for deployment in communities such as Keno with small population bases that cannot support a legitimate fire department.

The rationale for the FPIB program is to provide small remote communities with the tools internally to provide neighbour -to- neighbour assistance in the event of fire when there is no capacity to staff a volunteer fire department. It is not intended to be a formal organization, nor a replacement for a fire department if it can be supported.

The concept is based upon the following important principles:

1. The FPIB program is not a fire department. It is not called one, there is no Fire Chief, no remuneration, and no direct association with the FMO in any way.
2. The one-time FPIB equipment will be provided by the Yukon Government (YG), at no cost to a Community Association or Local Advisory Council (LAC).
3. Initial equipment set-up and basic training will be provided by YG.
4. The equipment will then become the property of the Community Association or LAC.
5. All other FMO-owned fire department equipment currently in possession of the community will be removed.
6. There will be no on-going financial support, equipment replacement, remuneration, direction, governance, or training provided by the YG or the Fire Marshal's Office (FMO), beyond the initial start-up.
7. Any and all liability and risk for use of the FPIB will fall to the Community Association or LAC, and/or the equipment users once the resource and basic training is delivered.

There are many benefits to this program for a local community and association, including:

- decreased territorial government regulation and increased local autonomy,
- no requirement to participate at any predetermined level,
- availability of rapidly deployable equipment of a type that is easy to use and highly likely to be familiar to many community members,
- ability to implement local customization of the FPIB at community expense,
- elimination of the need for onerous YFS membership requirements such as Criminal Record Checks, Entry Medical Exams, regular training, and Class 3 Driver Licenses,
- elimination of restrictive Yukon Occupational Health and Safety (OH&S) requirements such as the need to be clean shaven at all times, and the need for ongoing fitness testing,
- availability and accessibility of the FPIB equipment to community members solely at the discretion of the Community Association or LAC,
- availability of firefighting equipment that can be operated and handled by individuals with wide variances in physical capability,
- elimination of required training and administration programs established and managed by the FMO, and



- elimination of need for neighbours to utilize their own water supply or fire extinguishers to assist others.

There are also many benefits to YG in deployment of the FPIB resource to local communities unable to support formal fire departments, including:

- comfort in knowing that even the smallest communities will now have basic capability to limit fire spread in the event of structure fire,
- ability to address ongoing community concerns regarding cessation of local volunteer fire department activities that were unsustainable,
- elimination of risk and liability in situations where YG legislation and regulation was compromised, yet fire department operations continued,
- elimination of need for FMO staff to manage failing organizations, thus focusing their funding and energy on fire departments that are remaining functional, and
- reduction in FMO costs directly attributable to community fire protection.

In terms of financial impacts, the YG, through the FMO, currently funds all resources within the YFS. This includes volunteer remuneration, fire apparatus, equipment, training, administration, travel for training or conference, and more. The establishment of FPIB programs in communities where volunteer fire department staffing is inadequate will eliminate many of these costs but will initiate others that are less impactful and far more appropriate.

Currently, each major fire apparatus purchased costs YG approximately \$700,000 - \$900,000 with a lifespan under current policy restricted to 30 years, at most. This translates to a \$23,000 – 30,000 annual commitment for a single piece of equipment. There are currently 37 large fire apparatus in the FMO inventory which means that one to two per year are being replaced. Additionally, firefighter turn-out gear (Personal Protective Ensemble - PPE), at approx. \$3,500 per set, is required to be replaced by OH&S regulation every 10 years. The FMO requires between 150 and 200 sets of compliant PPE for its firefighters, which equated to approx. \$50-60,000 annually. Self-contained breathing apparatus (SCBA) must also be replaced regularly as per OH&S requirements. Each complete SCBA set costs approx. \$10,000 and there are currently over 100 sets in service. Annual remuneration, equipment replacement, equipment repair, service and testing of equipment and apparatus, and other costs contribute approx. \$10,000 more annually per firehall. As is readily apparent, provision of fire protection through a local volunteer fire department is expensive and highly regulated.

Alternatively, the FPIB program is intended to be a one-time cost allocation from the YG for each community involved. Costs for a complete FPIB kit are estimated to be under \$20,000 per kit based upon market costs (See Appendix 13). Use of additional “donated” equipment would further lower those costs and/or enhance capabilities. In future, YG could consider establishing a small grant fund to assist in replacement of FPIB equipment when required due to end-of-service-life, loss, or damage. The community would need to submit a grant request and obtain approval and funds to obtain any replacement equipment. None of the equipment identified as part of the proposed FPIB kit is covered in regulations as requiring specific replacement or service intervals through OH&S.

The transition to a FPIB program for these communities could realize significant costs savings to the YG. At the same time, the level of fire protection available would realistically improve in each community.

The proposed FPIB kit would include:

- a moderate capacity portable volume pump
- 175+ imperial gallon portable water tank
- 10 – 20 feet of flexible suction hose
- 300 feet of rubber jacket hose line
- 300 feet of forestry type hose line
- light duty adjustable fog nozzles for hose lines
- 10 imperial gallon fuel reservoir tank
- a cache of 10 battery-operated combination Smoke / Carbon monoxide (CO) alarms
- five portable all-purpose ABC fire extinguishers
- two water extinguishers
- four Pulaski tools
- two MacLeod tools

It is proposed that the tank and pump (Figure U), plus firefighting equipment, could be mounted in the bed area of a surplus Wildland Fire Management (WFM) utility truck. These trucks are regularly replaced by WFM and traditionally go to auction for disposal. Utilization of these vehicles would greatly facilitate increased capability and flexibility for the FPIB concept, while maintaining cost control for YG.

Figure U. Source: Example of a tank and pump set up that could be part of a FPIB kit. Image reproduced courtesy of QTAC. [www.qtacfire.com](http://www.qtacfire.com)



In addition to the equipment identified above, each community has a fire station and large water reservoir tanks already in place. These facilities could be utilized to house the FPIB and replenish on-board water for the truck, as required. A mechanism for transfer of ownership of the current facility, or alternatively a rent/lease arrangement, would need to be part of the eventual program implementation, if adopted.

It is recommended that the FPIB program be initially offered to, and/or adopted by, the following former and current FMO volunteer fire department communities.

- Keno
- Mendenhall
- Beaver Creek

- Carcross
- Upper Liard
- Burwash Landing
- Ross River
- Old Crow

These communities currently do not demonstrate the capacity or capability to operate and maintain a legislatively compliant volunteer fire department. Keno, Ross River, Old Crow and Mendenhall have all had “closed” fire stations for many years. Beaver Creek and Upper Liard have only single individuals in their “fire department.” Carcross and Burwash Landing have three or fewer members. In all cases, these operations do not meet any existing standards for operation, nor will they meet any recommended standards forthcoming in this review without significant recruitment occurring. It is truly unfortunate that significant YG investments in equipment and facilities were made that have not been fully supported by these communities through lack of volunteer participation.

Communities that cannot, or choose not to, adopt the Training Standards and Levels of Service for the Yukon Fire Services would be required to submit a request to the Yukon Fire Marshal’s Office for provision of a FPIB kit for community “self-protection.” Both Keno and Mendenhall were engaged through “town hall” type meetings and both were extremely interested in the FPIB concept.

The community association, through duly elected representatives, would be required to enter into an agreement with YG identifying that all future responsibility, liability, and support is removed once the FPIB equipment, and orientation training, is delivered. The agreement would encompass the FPIB equipment itself, any associated vehicles, any buildings, and associated water supply and storage. The community association must sign the agreement and assume full responsibility and liability, or the FPIB equipment will be removed.

Should a community decline the FPIB and be unable to sustain a functioning VFD, they must accept immediate full closure of their fire hall and the fire department. If a community expresses anxiety or anger toward any devolution in local fire protection capability, the solution will rest exclusively with them to identify and enroll more volunteers in order to keep a functioning fire department present.

The FMO concept program of the Community Safety Champion is especially well-suited for allegiance with the FPIB program. In fact, it could be beneficial for a Community Association or LAC to identify a Community Safety Champion and have them “administer” the FPIB program locally.

It is important to identify that with the FPIB program, community members still need to call 911 for fire department response from the nearest available community. This should occur immediately for any kind of structure fire, and as quickly as possible if local efforts with the FPIB are not effective for any other fire. It is easy to cancel a response if they are no longer required, but delayed response can result in increased damage and/or injury.

At present, the recommendation is an either/or concept: either a community utilizes the FPIB concept **OR** it operates and maintains a fully compliant volunteer fire department **OR** there is no fire suppression capability at all in the community. However, it is conceivable that there may be requests for utilization of both “systems.” This would increase costs for YG, and the demarcation of liability and risk

would be blurred. Further, it could bring into question the risk/liability transfer from the YG to Community Associations or LACs in locations where FPIB is used alone. Response Specialties does not recommend a blended system unless YG is accepting of continued liability and risk.

## Strategic Recommendation P: Building Code Amendments

The Yukon utilizes both the National Building Code and National Fire Code of Canada. Neither of these documents aggressively pursues currently available best practices related to prevention of spread of fire within structures. This recommendation identifies changes to the Building Code directed at fire safety and prevention.

### Fire Sprinklers

Jurisdictions across the world have identified that the single most effective device available to control fire propagation and spread in structures is fire sprinklers. While required by Code in larger, complex occupancies, they are rarely required in residential home where the overwhelming majority of fire-related injuries and deaths occur. Further, their presence has been well documented to reduce overall fire losses and structure damage. Historically, fire sprinklers required a significant domestic water supply to be installed within homes. Recently however, innovative technologies have been developed that provide for fire sprinkler coverage in homes with limited or no internal water system. In Yukon, the FMO has been working with a commercial vendor to try and promote installations of a self-contained, combination detector-sprinkler unit. This device has application throughout Yukon and has potential to fundamentally change the need for local fire services at current levels if deployed widely. Unfortunately, there is limited uptake and deep-seated misunderstandings around fire sprinkler protection. This must change and the two best ways would be through public education, in addition to a change to the Building Code application in Yukon to adopt an additional requirement for installation of sprinkler protection in all newly constructed dwellings, as well as those undergoing significant renovation. Costs to the homeowner are low and costs to YG are zero. Benefits to both are so positive as to be virtually unmeasurable.

### Use of non-combustible building materials

Wildland interface fires are a critical concern for Yukon, like many other Canadian regions. Exposure ignition resulting from nearby structural fires is also a common concern. In many Canadian regions local decisions were made to enforce use of non-combustible building materials on the outer building envelope. The use of “Hardy Board” siding and metal roofing materials demonstrates strong fire resilience; often much greater than traditional wood siding and asphalt shingle roofing. Both of these items are readily available and with comparative cost to other common building materials. Neither diminishes the outward appearance of the structure, some may say they enhance it, and each have demonstrated toughness in inclement weather. Use of these fire-resistive building materials, as well as others, for all homes would markedly reduce the impacts of interface fire and the spread of structural fires from one building to another.

The FMO should liaise with Yukon Building Safety to research and pursue amendments to the Building Code for Yukon to include the requirement for installation of fire sprinklers and non-combustible building envelope materials in all new construction and significant renovations.

The FMO should also establish a reporting link with Building Standards whereby they immediately notify the FMO of any new or renovated Part 3 occupancy in Yukon to be sure that subsequent required fire safety inspections are scheduled and carried out.

### **Strategic Recommendation Q: *Motor Vehicles Act* revision**

The Fire Marshal's Office should lobby the Yukon Government Motor Vehicle Department to change the licensing restrictions for the Class 5 with Airbrake Endorsement. Currently, Yukon Class 5 drivers with air brake endorsement are restricted to operation of vehicles under 11,000 kg weight. The same driver license category currently exists within British Columbia but has no weight restriction. As a result, it is utilized extensively, and safely, by fire departments province-wide for two axle fire apparatus. This category facilitates more focussed, relevant, and economical training and licensing for volunteer firefighters. Volunteer firefighters will infrequently drive fire apparatus simply due to the lack of need, as well as a typically short "career." Many, if not most, will have no use for the Class 3 license outside driving the fire apparatus and view the expense and requirements to be challenging. It was revealed in discussions during the review process that prospective volunteers have declined to join based upon this requirement alone.

Currently, the FMO Yukon fire service does not have any tandem axle fire apparatus. The vast majority of municipal fire services in Yukon do not either. The ability to use a Class 5 with Air Brake license level would have sweeping positive impact on the Yukon fire service, and likely other professions and organizations.

If needed, or desired, the FMO should seek support for legislative change from other Yukon Government departments, as well as other commercial and industrial organizations, that could benefit from this proposed amendment.

Ideally, the *Motor Vehicles Act* would be amended to remove the reference to a vehicle weight restriction for the Class 5 with air brake endorsement. However, the restriction may exist for specific reasons such as types of use, culvert capacities, or road quality.

Alternatively, an exemption should be sought within an amendment to the *Act* that would allow for the driving of fire department firefighting apparatus with two axles by operators with a Class 5 with airbrake endorsement.



## **APPENDICES**

## Appendix 1 - Strategic Recommendations List by Topic Area and Priority

Suggested timelines for implementation of the General Recommendations in this report are that:

- the short-term priority General Recommendations should be completed prior to September 1, 2022
- the medium-term priority General Recommendations should be completed prior to December 31, 2023
- the long-term priority General Recommendations will likely take 2+ years to complete

	Governance	Compliance	Finance & Risk	Operations	Priority
Strategic Rec A	√				short term
Strategic Rec B	√				medium term
Strategic Rec C	√				medium term
Strategic Rec D	√				short term
Strategic Rec E	√				medium term
Strategic Rec F		√			short term
Strategic Rec G	√		√	√	short term
Strategic Rec H				√	longer term
Strategic Rec I	√				short term
Strategic Rec J		√			short term
Strategic Rec K		√			medium term
Strategic Rec L	√			√	medium term
Strategic Rec M				√	longer term
Strategic Rec N	√				longer term
Strategic Rec O	√			√	short term
Strategic Rec P	√				longer term
Strategic Rec Q	√				medium term

### Strategic Recommendations Discussion:

There are 17 recommendations identified as Strategic Recommendations.

To be successfully completed, many Strategic Recommendations will need to proceed through detailed and confidential YG processes and authorizations. Others will need to pass through the Yukon legislative process. A few are targeted for short-term adoption because of their urgent need for, and relative ease in, implementation. Others are less urgent but have equal importance to the long-term success of the Yukon Fire Service.

## Appendix 2 - General Recommendations List by Topic Area and Priority

Suggested timelines for implementation of the 87 General Recommendations in this report are:

- the short-term priority General Recommendations should be completed prior to December 31, 2022
- the medium-term priority General Recommendations should be completed prior to June 30, 2024
- the long-term priority General Recommendations will likely take 3+ years to complete

	Governance	Compliance	Finance & Risk	Operations	Priority
General Rec 1	√	√			medium term
General Rec 2		√			medium term
General Rec 3	√			√	longer term
General Rec 4				√	longer term
General Rec 5	√				short term
General Rec 6	√				longer term
General Rec 7	√				short term
General Rec 8	√			√	short term
General Rec 9	√			√	short term
General Rec 10				√	short term
General Rec 11		√		√	medium term
General Rec 12	√				medium term
General Rec 13	√				longer term
General Rec 14		√		√	medium term
General Rec 15				√	longer term
General Rec 16	√				short term
General Rec 17		√		√	short term
General Rec 18	√			√	short term
General Rec 19	√			√	medium term
General Rec 20			√		medium term
General Rec 21				√	short term
General Rec 22		√		√	short term
General Rec 23		√		√	medium term
General Rec 24				√	longer term
General Rec 25		√		√	short term
General Rec 26		√		√	short term
General Rec 27				√	medium term
General Rec 28				√	short term
General Rec 29				√	medium term
General Rec 30		√		√	short term
General Rec 31				√	short term

	Governance	Compliance	Finance & Risk	Operations	Priority
General Rec 32				√	medium term
General Rec 33				√	medium term
General Rec 34	√				longer term
General Rec 35	√			√	short term
General Rec 36	√				medium term
General Rec 37	√				short term
General Rec 38	√				medium term
General Rec 39	√				short term
General Rec 40	√			√	short term
General Rec 41		√		√	medium term
General Rec 42	√			√	medium term
General Rec 43	√			√	short term
General Rec 44	√				medium term
General Rec 45	√	√			short term
General Rec 46		√			medium term
General Rec 47				√	longer term
General Rec 48				√	short term
General Rec 49				√	medium term
General Rec 50	√			√	longer term
General Rec 51		√	√		short term
General Rec 52				√	medium term
General Rec 53	√	√			short term
General Rec 54		√			short term
General Rec 55		√			short term
General Rec 56		√		√	medium term
General Rec 57	√	√			medium term
General Rec 58	√	√			longer term
General Rec 59		√			short term
General Rec 60		√			short term
General Rec 61	√	√			medium term
General Rec 62	√	√		√	longer term
General Rec 63		√		√	short term
General Rec 64				√	medium term
General Rec 65	√	√			short term
General Rec 66	√				longer term
General Rec 67	√		√		medium term
General Rec 68				√	short term
General Rec 69			√		short term
General Rec 70	√			√	longer term
General Rec 71	√	√	√	√	short term
General Rec 72			√		longer term

	Governance	Compliance	Finance & Risk	Operations	Priority
General Rec 73	√		√		medium term
General Rec 74	√			√	longer term
General Rec 75	√				medium term
General Rec 76	√				medium term
General Rec 77		√		√	longer term
General Rec 78	√				longer term
General Rec 79				√	medium term
General Rec 80	√				short term
General Rec 81			√	√	medium term
General Rec 82			√	√	medium term
General Rec 83				√	longer term
General Rec 84			√	√	short term
General Rec 85				√	longer term
General Rec 86	√			√	medium term
General Rec 87	√				longer term

### General Recommendations Discussion:

To be successfully completed, many General Recommendations have impact upon, or require influence from, multiple topic areas. Short-term recommendations primarily address priority issues of safety and/or required legislative compliance specific to critical fire service legislation.

Of the 87 General Recommendations, 47 (54%) address a single topic area (e.g., Governance). The remaining 40 General Recommendations (46%) address multiple topic areas simultaneously.

Of the 87 General Recommendations, 48% reference governance, 31% reference compliance, 11% reference finance and/or risk, and 56% reference YFS, or specific FMO, operations.

### Low Hanging Fruit:

Many priority recommendations can be considered as “low hanging fruit” and could be actioned quickly and easily by existing staff within their current mandates. Examples include transition to a face-to-face communication priority; activate and support functioning OH&S programs; implementing the FMO duty officer program, and many others.

## Appendix 4 – Numeric List of General Recommendations

**Recommendation 1:** That the FMO research and maintain a comprehensive list of all legislatively required compliance items, including for individual VFDs, and actively enforce regular compliance.

**Recommendation 2:** That the FMO engage with Yukon OH&S and implement consistent application of both Standard Operating Procedure (SOP) and Standard Operational Guideline (SOG) terminologies that are consistent with established practices at Yukon OH&S..

**Recommendation 3:** That the FMO establish an annual review and amendment schedule to be applied to all internal policies and standard operating procedures. Further, that a specific individual within the office, preferably with a background in technical writing and document research, be assigned the role of leading these regular reviews.

**Recommendation 4:** That all future FMO policies and SOPs be annually reviewed by, and final copies written by, the identified technical writer within the office. No document shall be implemented without content and format review, as well as sign-off by this individual.

**Recommendation 5:** That the FMO, under the guidance of Protective Services leadership, undertake a strategic planning process to define the future of the FMO and its mandate. This must include establishing and defining a Vision, Mission, Goals and Objectives for all areas of responsibility.

**Recommendation 6:** That YG, through the FMO, audit and enforce the requirement for a fire department to operate, train and resource to their declared Level of Service at all times.

**Recommendation 7:** That the FMO confirm its managerial reporting lines and organizational structure to all VFD Fire Chiefs and senior officers

**Recommendation 8:** That the FMO transition to a more frequent face-to-face communication model with VFD chiefs and departments where staff visit each department one to two times annually.

**Recommendation 9:** That the FMO establish a 24/7/365 Duty Officer rotational schedule prior to January 1, 2022, that utilizes all fire marshals, regardless of rank, to provide immediate telephone/radio communication with responding crews, and/or scene response to high-profile or high-risk incidents throughout the Yukon. Further, that the on-duty officer be provided an appropriate emergency vehicle with which to respond promptly.

**Recommendation 10:** That the FMO require the duty officer be immediately notified by the fire dispatch provider upon identification of a serious incident. The criteria to identify such high-profile or high-risk incidents shall be created by the FMO, in consultation with its VFD Fire Chiefs and dispatch, and shall be documented in FMO policy.

**Recommendation 11:** That the FMO, in conjunction with the fire dispatch provider and YG IT services, establish a list of KPI's and develop methodology to track, analyze, and utilize these measures to guide future decision-making and performance.



**Recommendation 12:** That YG - Communications, with lead from the FMO, develop a relevant and thoughtful information package for dissemination to all new and tenured elected officials in Yukon. The information should include written, video PSA, and social media educational and speaking points.

**Recommendation 13:** That FMO hiring practices ensure that future employees be either hired with appropriate training in fiscal management, risk management, contracting, and procurement or, that they receive the necessary training immediately upon employment.

**Recommendation 14:** Increase FMO overall compliance with YG policy and procedure.

**Recommendation 15:** That the FMO urgently establish a minimum staffing level of available FMO staff. Further, that this minimum staffing level be set at 3 (excluding the Clerk position).

**Recommendation 16:** That YG Human Resources undertake a review and revision of all Job Descriptions for the FMO to ensure they reflect current practice as well as YG direction.

**Recommendation 17:** That all FMO staff be enrolled into on-going team building programs which require mandatory attendance. The facilitators must be familiar with the fire service environment and be highly trained in eliciting frank and open discussion within an organization with deeply rooted challenges.

**Recommendation 18:** That the internal YG organizational chart for the FMO appropriately reflect the existence of YFS and municipal VFDs.

**Recommendation 19:** That the FMO review and amend all YFS internal documentation, as well as empowering legislation, to accurately reflect the current mandates, practices, and authorities of the FMO. This process must be undertaken with cooperation from numerous other YG departments.

**Recommendation 20:** That the FMO prepare and submit detailed budget and resource requests annually as a matter of practice moving forward for all new programming or initiatives, and therefore minimize the use of discretionary reallocation of funding.

**Recommendation 21:** That the FMO inventory all PPE and update the list at least annually, and after significant bulk purchases.

**Recommendation 22:** That inspection, maintenance, cleaning, and testing checklists and records for all PPE, and in compliance with all applicable legislation and regulation, be created and retained by the FMO for each VFD and firefighter.

**Recommendation 23:** That the FMO continue to institute and enforce expectation that all active-duty firefighters will use applicable PPE (Coat, jacket, and helmet) that is less than 10 years of age from date of manufacture, until such time as alternative direction is received from OH&S.

**Recommendation 24:** That the FMO maintain a single manufacturer and type SCBA program to ensure firefighter familiarity and assist in maintenance programming.

**Recommendation 25:** That the FMO establish a policy requirement of all VFDs that each PASS device in service must be tested weekly as per OH&S Regulation.

**Recommendation 26:** That inspection, maintenance, cleaning and testing checklists for use by firefighters be required documentation that must be submitted to the FMO regularly and according to applicable legislation and regulation.

**Recommendation 27:** That a complete inventory of each VFDs equipment be regularly undertaken to ensure items are known, functional, safe, and ready for use, and that required items that are not available are identified.

**Recommendation 28:** That the FMO provide each VFD with visual inspection checklists for all applicable equipment.

**Recommendation 29:** That all regulatory and departmental inspection, maintenance, and testing records for fire fighting equipment be retained as per YG records management practices or kept accessible to interested parties for a period not less than 2 years.

**Recommendation 30:** That all VFD firefighters who may drive/operate any fire apparatus receive training on pre- and/or post-trip inspections on each apparatus on a regular basis, as well as complete them regularly after calls and practice nights, as per the regulatory requirements in place in Yukon for their driver license level.

**Recommendation 31:** That all VFDs be required to clean all apparatus and ensure operational readiness at the end of each incident response as well as at training sessions.

**Recommendation 32:** That the FMO ensure that a guaranteed 24/7/365 fuel access program is in place for every VFD, including use of firehall fuel depots or mobile delivery vendors if required.

**Recommendation 33:** That the FMO earmark budget for procurement of prominent signage identifying the location of the FMO, and direction to it.

**Recommendation 34:** That the FMO explore opportunities for office space relocation, rearrangement, or addition to meet the current and anticipated needs of the office over the next several years.

**Recommendation 35:** That the FMO explore and implement an appropriate minimum training attendance requirement for all VFDs. Suggest that each firefighter must attend an absolute minimum of 4 hours training per month, or twenty-four hours annually, to maintain membership for Basic Firefighter qualification. Failure to achieve should result in discipline.

**Recommendation 36:** That a formal discipline process be identified for application in the event a firefighter has a restriction or prohibition on their drivers' license.

**Recommendation 37:** That a requirement be established requiring immediate notification to the Fire Chief, and FMO, of any restriction or prohibition from driving.

**Recommendation 38:** That an RCMP Enhanced Criminal Background Check, including Vulnerable Sector, be required for all firefighters upon hire, and every 3 years thereafter at FMO expense. Failure to comply should result in immediate dismissal of the firefighter.

**Recommendation 39:** That a formal procedure be established to set forth a review process related to identified criminal record entries in order to determine the relevance and importance to fire service involvement of each individual case, as well as what, if any, disciplinary action, up to termination, should be undertaken.

**Recommendation 40:** That all new firefighter recruits obtain a certificate of fitness (mental and physical) from either a qualified Registered Nurse or a registered Physician identifying they are clear to assume the duties of a firefighter at the specific Level of Service attributed to their community and training. Local Nursing Stations should be considered as appropriate. Costs for this request must be reimbursed by the FMO on hire.

**Recommendation 41:** That regular general fitness assessments be made a component of the annual training program for all firefighters, with attendance being compulsory. This fitness assessment will be based solely on bonafide requirements specific to the firefighter's specific role in the fire department.

**Recommendation 42:** That any firefighter who has been absent from training or responses due to injury or illness for a period exceeding six consecutive months, or who has missed their compulsory annual fitness assessment, be made to undergo a medical evaluation by a qualified registered nurse or physician, as appropriate, and be cleared of any associated health concerns prior to returning to active duty. Costs for this request must be reimbursed by the FMO.

**Recommendation 43:** That any firefighter who has been absent from training or responses for a period exceeding six consecutive months, regardless of reason, be made to undergo a skills assessment at their Service & Training Level before returning to active duty.

**Recommendation 44:** That volunteer firefighter hourly remuneration be tied to that of the entry-level position for EMS. The current wage for firefighters of \$22 per hour has not changed in many years. Consideration should be given to raising it appropriately and then tying it directly to any future incremental increases afforded to entry-level EMS volunteers.

**Recommendation 45:** That the FMO ensure that Fire Dispatch providers be researched and validated against recognized industry standards and benchmarks for emergency services dispatch. This includes facilities, technology, staffing, procedures and records management/reporting. Further, that the dispatch provider be required to report monthly on ongoing compliance with established industry standards and benchmarks.

**Recommendation 46:** That the FMO identify all radio equipment in use in each VFD and cross-reference this information against the allocated number of devices for radio licenses issued for each department. Radio licenses must be updated accordingly on an annual basis.

**Recommendation 47:** That the FMO develop, and maintain, an annual inventory of all of its radio equipment and licenses.

**Recommendation 48:** That the FMO fully institute a Yukon-wide Automatic Aid requirement in 2022 for all serious incident types including structure fire, hazardous materials spill, technical rescue and advancing wildland-interface fire. The FMO should engage each municipality, including Whitehorse, as well as the fire dispatch provider to participate in the Automatic Aid program. Further, that the Automatic Aid program be committed to policy and SOP for reference and training.

**Recommendation 49:** That the FMO define and standardize back-fill requirements for aid departments responding to another jurisdiction under an Automatic Aid request.

**Recommendation 50:** That the FMO and its VFD leaders cooperatively develop, implement and review annually, a documented multi-year training program covering all services delivered and the associated training requirements.

**Recommendation 51:** That the FMO review all core and discretionary services delivered by VFDs and ensure that recognized training programs are utilized and comply with applicable legislation and best practice.

**Recommendation 52:** That the FMO identify at least six qualified instructors from within the YFS ranks to immediately begin development and instruction of regional training programs.

**Recommendation 53:** That any local VFD training ground use be discontinued unless the site can be certified to be safe for use in fire service training.

**Recommendation 54:** That the FMO ensure that the Joint Occupational Health & Safety (Joint OH&S) program include all member VFDs and be fully supported and funded in the pursuit of enhanced firefighter safety and risk reduction.

**Recommendation 55:** That the FMO facilitate regular OH&S workshops for committee members from all VFDs to learn and share knowledge.

**Recommendation 56:** That the FMO determine compliance of its records database with all expectations and requirements of OH&S and rectify any shortcomings immediately. Further, that the FMO attempt to retroactively account for all such records for all firefighters currently in service.

**Recommendation 57:** That the FMO implement an emergency vehicle driver/operator training program (such as CEVO) that all YFS apparatus operators must successfully complete.

**Recommendation 58:** That the FMO implement a safe-work policy to restrict fire apparatus response to “routine” (no lights or siren) unless the driver operator has successfully completed a designated driver training program (such as CEVO).

**Recommendation 59:** That the FMO immediately address serious OH&S compliance issues at the VFD level, where necessary.

**Recommendation 60:** That the FMO create a comprehensive checklist of all required OH&S compliance items and records for reference use by all interested parties.

**Recommendation 61:** That YG, and the FMO, establish a formal frequency schedule for fire safety inspections in unincorporated Yukon based upon occupancy type, age of building and any additional risks. Research of benchmark examples from other jurisdictions to establish the internal intervals is further recommended.

**Recommendation 62:** That YG increase staffing levels at the FMO to facilitate capacity to meet or exceed established benchmarks for fire safety inspection frequency in order to ensure ongoing public safety.

**Recommendation 63:** That the FMO push forward with its Community Safety Champion program in all communities and that each VFD implement this dedicated position (non-firefighter) within the volunteer ranks of the department.

**Recommendation 64:** That the purchase two digital fire extinguisher simulators that can be easily transported to, and deployed at, local community fire stations or other occupancies to provide realistic training to a broad spectrum of potential users.

**Recommendation 65:** That the FMO resume full responsibility for fire cause investigations for fires within YFS jurisdiction.

**Recommendation 66:** That the FMO ensure that all staff are appropriately trained to conduct fire cause investigations. OR that contractors, with the required training and experience, are utilized on behalf of the FMO to conduct fire cause investigations.

**Recommendation 67:** That the FMO lead a comprehensive review of all high-risk properties within Yukon and develop target hazard pre-incident plans and training for associated VFDs in all cases.

**Recommendation 68:** That the FMO designate a specific staff member to lead enhanced education and prevention programming.

**Recommendation 69:** That YG-ICT, and the FMO, develop, repair, or research and implement, a more effective and efficient fire payroll system.

**Recommendation 70:** That YG-ICT, and the FMO, research, purchase and implement a recognized third-party fire administration program to record, coordinate and report all data related to YFS operations.

**Recommendation 71:** That the FMO establish mandatory secure filing processes for paper copies of all confidential records at each firehall, with restricted access. Further, that a formal records management program, which specifies document retention terms and conditions, must be used.

**Recommendation 72:** That the FMO engage with the YG-ICT services to enhance electronic submission and storage of records from VFDs.

**Recommendation 73:** That the YG initiate appropriate records management training for all Chief Officers and FMO staff.

**Recommendation 74:** That the FMO lead research into a YFS recruitment tool such as Answer the Call with a focus on Public Safety Announcements (PSA's), social media content, and visual imaging.

**Recommendation 75:** That the FMO research and work with a small team of engaged representatives and experts to implement a comprehensive firefighter recruitment program, with special attention to Indigenous applicants. They should develop a “toolbox” for use by all communities and municipalities.

**Recommendation 76:** That the FMO streamline and improve recruitment processing through development of a fully digital on-line system. Consider recruitment intake regularly, either annually or bi-annually.

**Recommendation 77:** That the FMO continue to develop and deliver a recruit training program, compliant to both Workers Compensation/OH&S and the Yukon Firefighter Training Standard, which can be delivered at both the regional and local levels. Delivery of instruction should be from recognized trainers from across the Yukon. The program must also address any and all requirements of “New or Young Workers” as applicable, and as identified by Yukon OH&S.

**Recommendation 78:** That the FMO champion a “feeder” initiative within the YFS to encourage youth to volunteer as Explorers and firefighters. This may then, in turn, progress preferentially, to YG jobs (P/T and F/T). Youth should be further engaged with course credits to reflect work experience and training as firefighters.

**Recommendation 79:** That the FMO identify and empower a lead staff member to develop and implement a standardized and exhaustive YFS recruiting program.

**Recommendation 80:** That the FMO establish within Policy the following VFD staffing requirements related to Level of Service and training. The staffing requirements should be: Basic Firefighter Level: 6 Volunteers – 3 available (4 if SCBA used); Advanced Firefighter Level: 8 volunteers – 4 available; Interior Firefighter (FF1) Level: 15 members – 7 available.

**Recommendation 81:** That the FMO should require comprehensive business cases and objective statistical facts to support any additional service request by a VFD beyond the identified “core” services of the Basic Firefighter level.

**Recommendation 82:** That the FMO should require a comprehensive business case to support continued involvement in any discretionary service being performed by a VFD.

**Recommendation 83:** That the FMO undertake a comprehensive review of all training programs with a view to developing stimulating, yet simple, training scenarios designed to challenge the volunteers and maintain engagement and morale.

**Recommendation 84:** That a specific incident response worksheet template, supplementary to the Command Board, be created by the FMO to facilitate enhanced data collection at incident scenes.



**Recommendation 85:** That FMO research and budget for (including grant opportunities) dry hydrant installations at appropriate water body/lake access points for all VFDs without a public water supply (hydrant) system. The locations should be identified in close collaboration with local VFDs.

**Recommendation 86:** That YG review the fleet management practices of the FMO and, in conjunction with the AYC and individual municipalities, develop a mutually agreeable understanding on provision, or not, of YG fleet apparatus to municipal fire services in order to carry out incident response outside the municipal boundary.

**Recommendation 87:** That YG, and the FMO, enter into discussions with the Association of Yukon Communities (AYC) in regard to opportunities for municipal fire protection functions to be able to voluntarily join the YFS.

## Appendix 5 - Comparison of community volunteers and volunteer firefighters

This exhibit shows the key differences between regular community volunteers and volunteer firefighters

Factor	Community Volunteer	Volunteer Firefighter
Annual time requirements/ expectations	Modest monthly	Training 4-8 hours monthly; callouts 15-30 hours annually
Randomness of time requirements	Predictable hours	Predictable training hours; random hours for call out 24/7/365
Volunteer safety	Not an issue	Unpredictable dangers and safety risks
Regulatory environment	None to modest	Stringent regulation by OH&S, FMO and other agencies
Competency environment	None	Volunteers required to maintain diverse qualifications (e.g., driving; firefighting; medical skills, safety practices; records)
Life safety/health impacts	None	Can be major long-term health risks (cancer, cardiac, physical)
Risk of Post-Traumatic Stress Injury/Disorder (PTSI/PTSD)	None	Mental injury very possible based on viewing of serious accident scenes; often over many years
Training requirements	Modest, usually informal, and common sense	Significant at start up and continuous training requirements throughout service life
Attendance standards	Usually, optional	Attendance standards generally required for training and callouts
Length of commitment	Usually for up to a year at one time	Commitment is requested/expected to be for many years
Impacts on personal life	None	Need to be sober and fit for duty essentially all the time. Must be prepared to leave home or work immediately for incidents

## Appendix 6 - Fire Underwriters Survey (FUS) requirements

### MINIMUM REQUIREMENTS FOR A FUS DPG GRADING

A Fire Protection Area (FPA) is defined as the area covered by a specific firehall.

DPG (Dwelling Protection Grade) is a 1-5 scale representing levels of community fire protection regarding private dwelling insurance. DPG 1 is the highest grade possible.

#### If FPA population is less than 1000:

- A clearly established and registered fire protection boundary area
- 1 Fire Chief **and** 15 active and trained firefighters able to respond
- A suitably constructed and arranged firehall facility
- One triple-combination Engine/Pumper<sup>1</sup> (<25 yrs. age) with minimum pumping capacity of 625 igpm (3000 LPM) at 150 psi accredited to either ULC S515 or NFPA 1901
- Accredited Commercial Vehicle Inspection (CVI) required annually
- Accredited pump testing required annually on engines/pumpers

#### AND

- An accredited public water supply system (fire hydrants) in accordance with FUS “Water Supply for Public Fire Protection” minimum standards

#### OR

- One Water Tender<sup>1</sup> apparatus (<25 years age) with minimum 880 igal (4000 L) capacity accredited to either ULC S515 or NFPA 1901, **AND**
- Combined minimum water tank capacities of engine/pumper plus tender apparatus of 1500 igal (6820 L), **AND**
- If using a dump valve on the Tender, a portable tank of 1000 igal (4550 L) is required

#### If FPA population is over 1000:

All requirements listed above (population less than 1000) apply, except:

- Front-line engines/pumpers and tenders must be 20 years of age or less

#### If Superior Tanker Shuttle (STSS) designation DPG 3B(S) is desired:

- All engines/pumpers and tenders utilized must be 20 years of age or less <sup>1</sup>

<sup>1</sup> Only the front-line apparatus of each type (engine or tender) to meet the minimum qualifications above. All other apparatus can be beyond retirement age (20 or 25 years) with no negative effect on the Grade. All apparatus are expected to be maintained in operating condition, regardless of age, if they are to be utilized for firefighting activities.

## Appendix 7 – Engagement Survey responses – Community Engagement

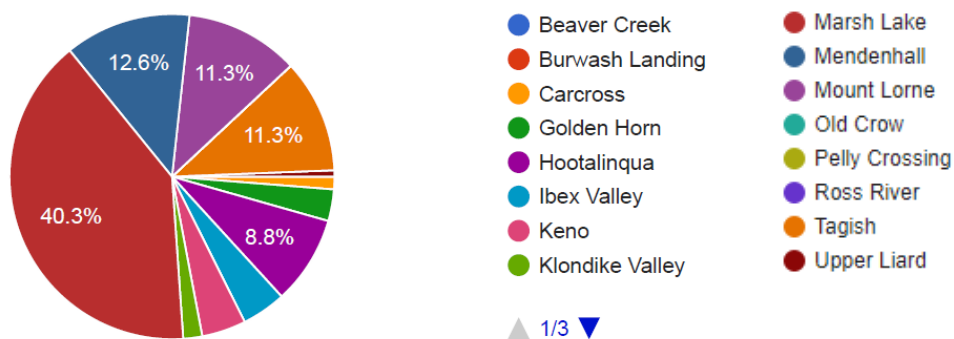
# Yukon Fire Marshal's Office Review -Community Engagement Survey

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**Important Note:** This review is focused on the volunteer fire departments of the Unincorporated Yukon and not municipal fire services. Representatives of municipalities and their fire departments will be engaged separately as it is recognized that they provide significant assistance outside of their jurisdictions when requested.

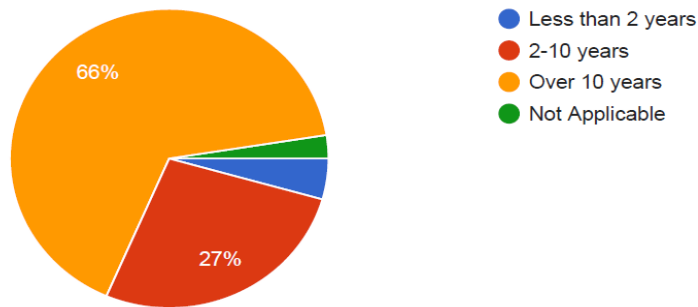
1. Which of the following communities or area do you most closely associate to your home (pick best one only)? NOTE: This survey is primarily looking at the community volunteer fire departments reporting to the Yukon Fire Marshal's Office. Municipal fire services will be engaged separately during the review.

159 responses



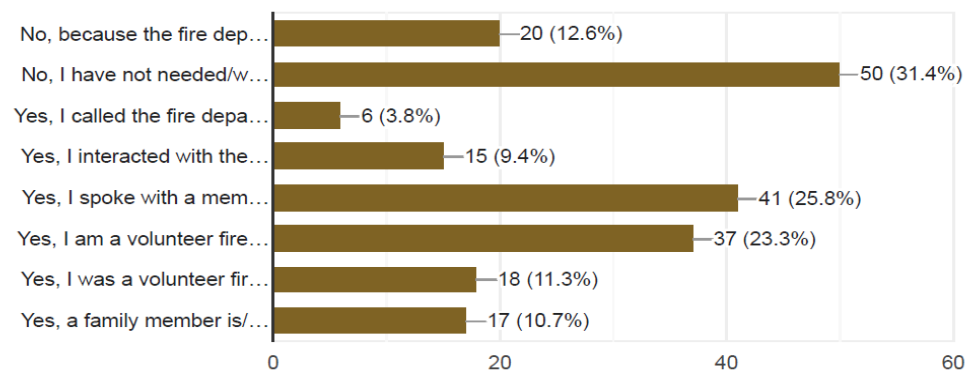
## 2. How long have you lived in, or owned property in/near, this community?

159 responses



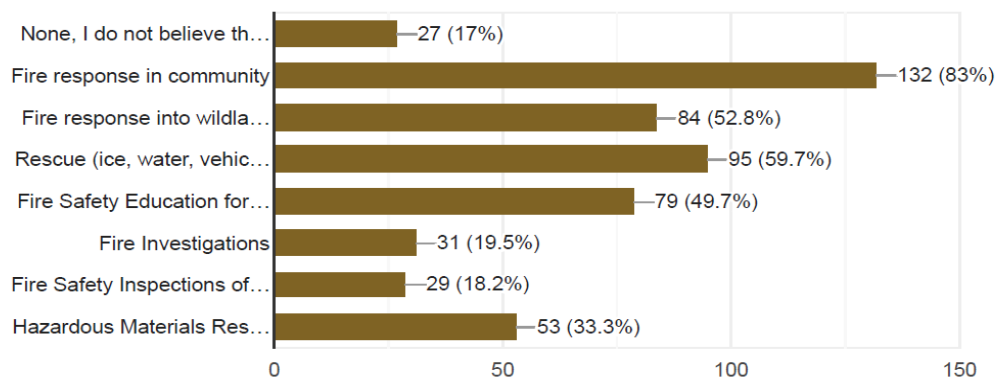
## 3. Have you had any interaction with the local volunteer fire department in the past 2-3 years (choose all that apply)?

159 responses

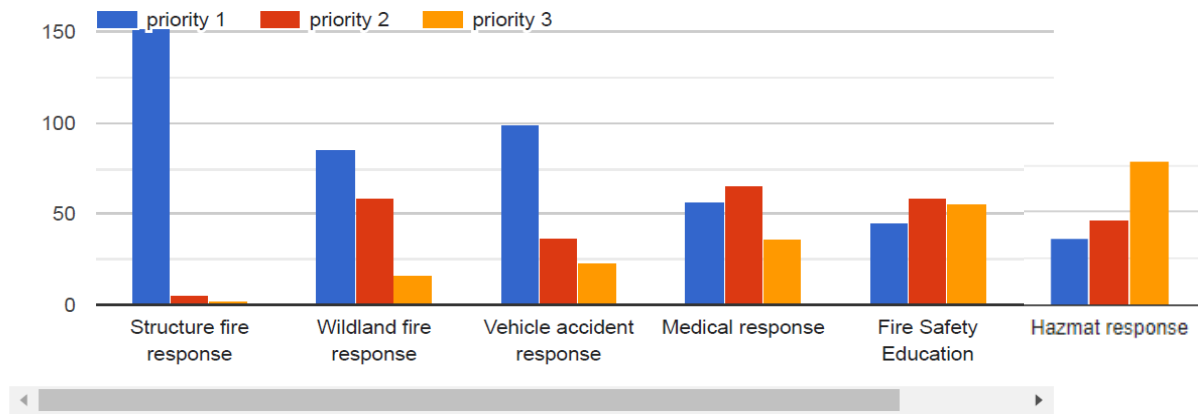


## 4. Please indicate which services you believe the local Volunteer Fire Department CURRENTLY provides (check all that apply)?

159 responses

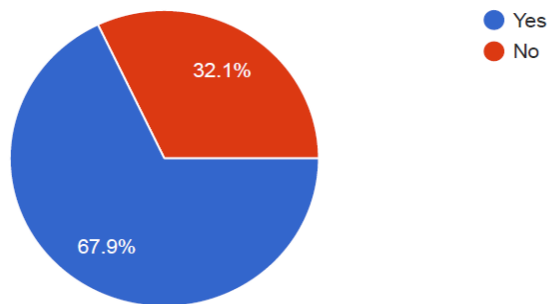


5. Prioritize the following services (1 = most important) for the volunteer fire department to deliver in your opinion?



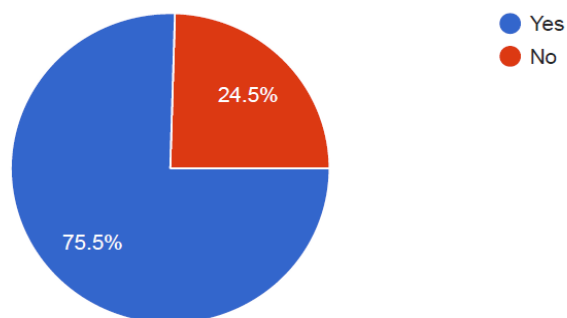
6. Did you know that the Yukon Fire Marshal's Office provides all of the above resources to a functioning local volunteer fire department (including training, budget, equipment, etc)?

159 responses



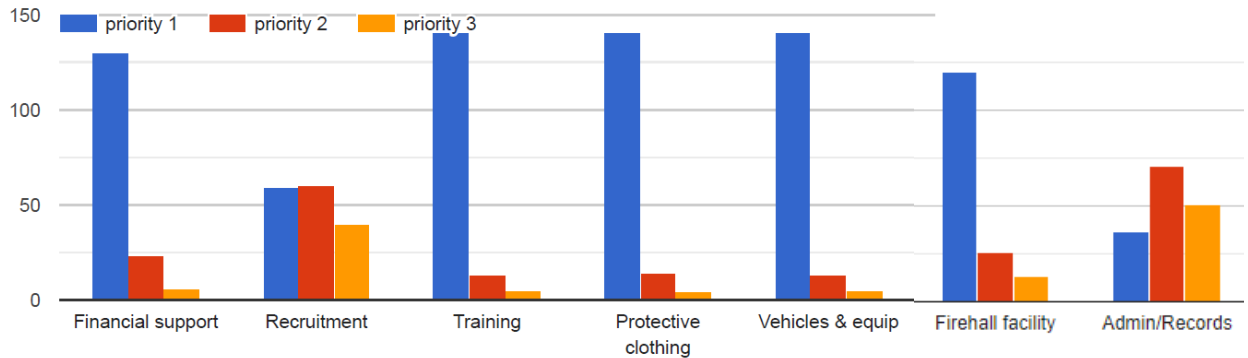
7. Did you know that it is the responsibility of the local Community itself to recruit volunteer firefighters and keep them involved?

159 responses



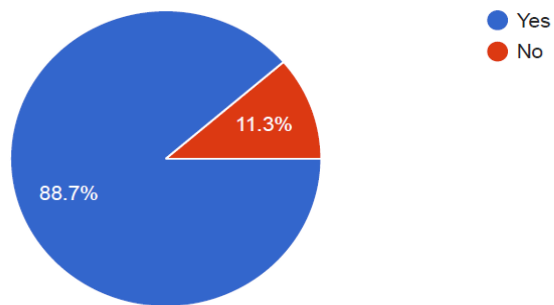


8. Prioritize the importance (1 = most important) of the support that the Fire Marshal's Office provides to local volunteer fire departments?



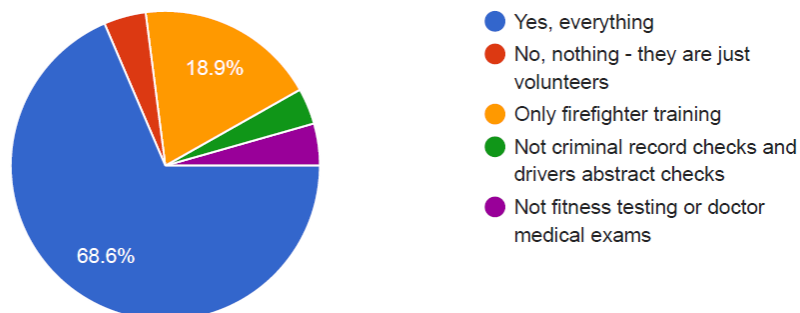
9. Did you know that volunteer firefighters are currently required to meet training and operational standards similar to all other volunteer firefighters in Canada?

159 responses



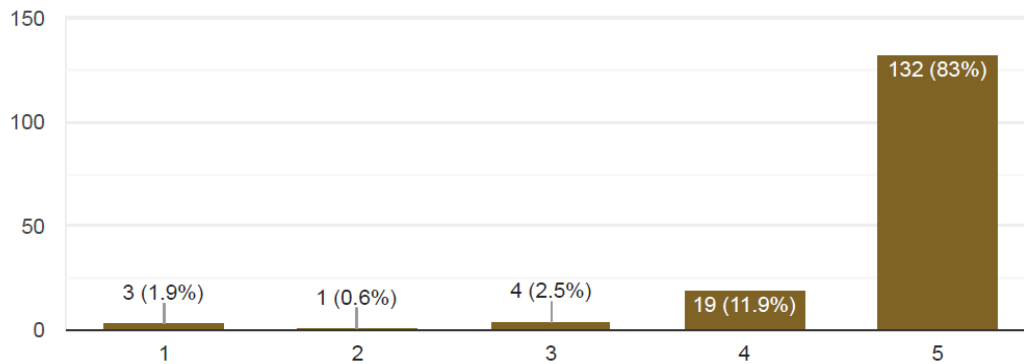
10. Do you believe that your local volunteer fire department should be required to meet legislation requirements regarding recruitment, training, medical/health, and safety?

159 responses



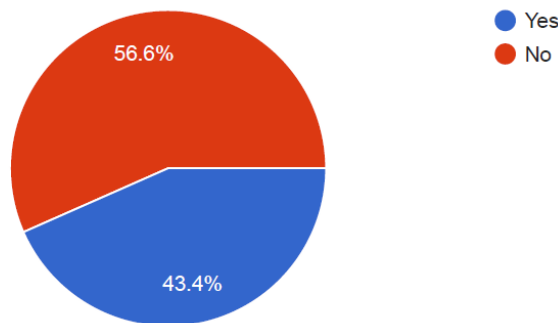
11. How important is it to you that a fully operational volunteer fire department exists in your community?

159 responses



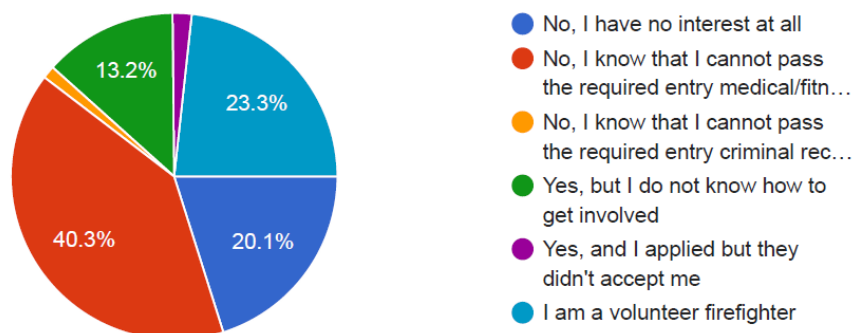
12. Are you, or have you ever been, a volunteer firefighter?

159 responses



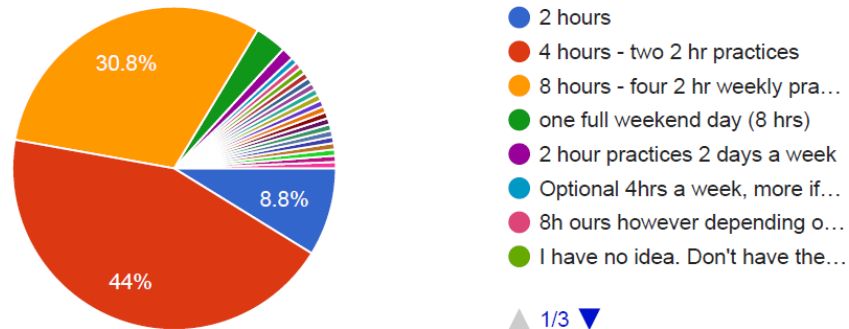
13. Would you consider being a volunteer firefighter?

159 responses



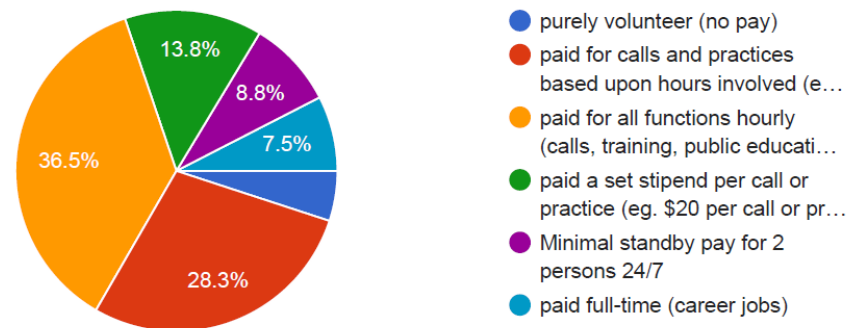
14. How much time do you believe is reasonable for a volunteer firefighter to commit for training each month

159 responses



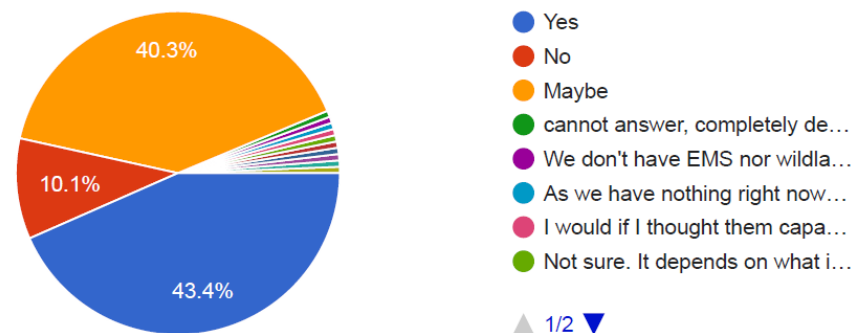
15. How do you believe that community volunteer firefighters should be remunerated?

159 responses



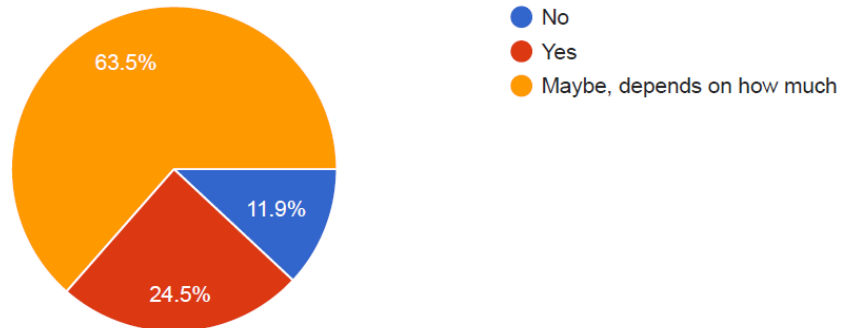
16. Would you support amalgamating your local fire department with another agency such as EMS, Wildland Fire Management, or other?

159 responses



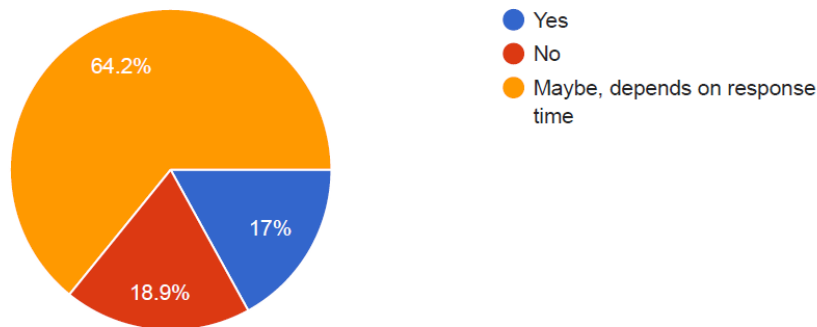
17. Fire Service delivery is very costly. Would you accept a significant tax rate increase to ensure there was dedicated firefighting resources in your community?

159 responses



18. Would firefighting response from a larger organization or community be acceptable to you if it meant fire protection for your community was provided but local taxes did not increase significantly?

159 responses



19. Do you have any other specific concerns or suggestions related to fire protection in your community specifically?

74 responses

*Answers have been edited from the document to protect the privacy of individual respondents.*

THANK YOU FOR YOUR PARTICIPATION

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## Appendix 8 – Engagement Survey responses – Fire Marshals/Fire Commissioners

# Canadian Fire Marshal / Fire Commissioner Survey

11 responses

1. What jurisdiction does your office represent?

11 responses



2. Is the FMO/OFC in your jurisdiction the principle authority for fire/rescue services in the province/territory?

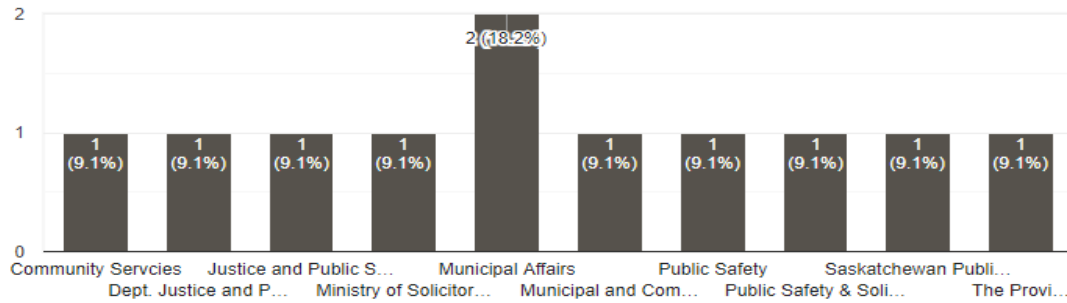
11 responses



### 3. What government department/agency does your FMO/OFC office report through?

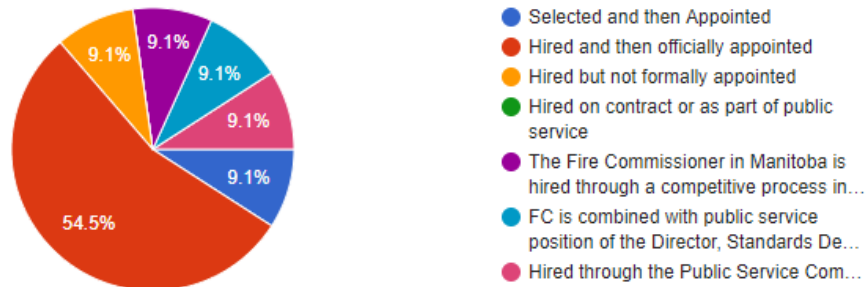


11 responses



### 4. Is the Fire Marshal/Fire Commissioner appointed by government or hired through a public service process?

11 responses



### 5. Is the FMO/OFC solely responsible for fire service legislation in the jurisdiction?

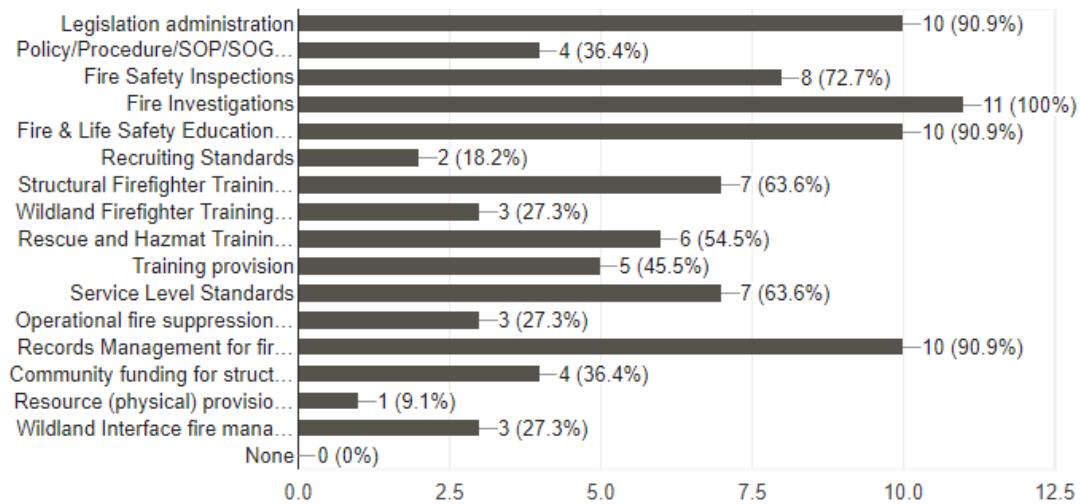
11 responses





## 6. What roles are provided by the FMO/OFC (check all that apply)?

11 responses

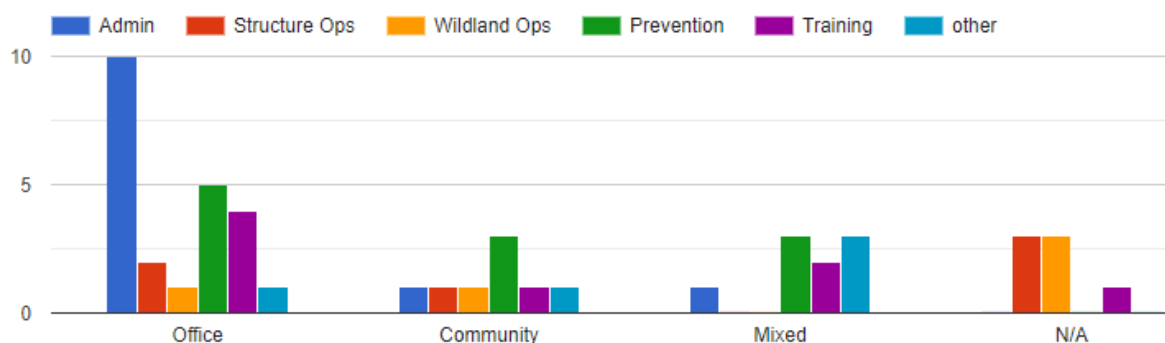


## 7. What is the staffing profile of your office (# staff, paid vs volunteer, roles, titles, etc)? Please provide as much detail as possible

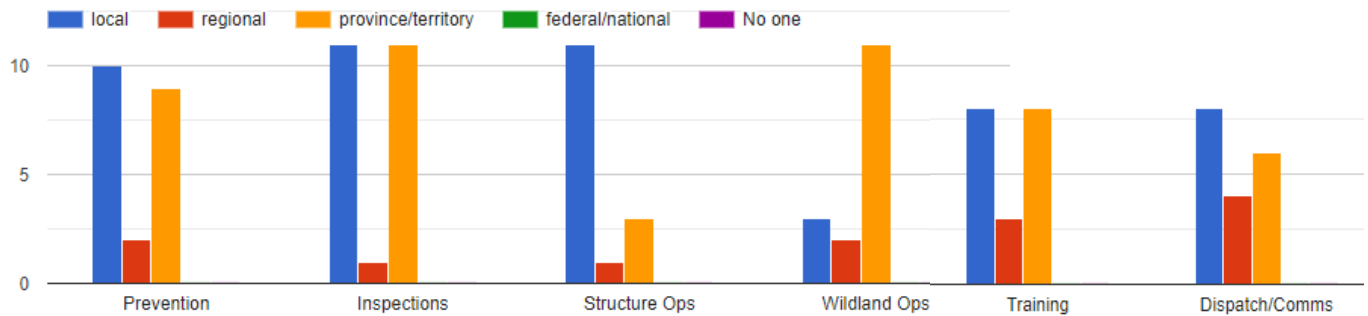
11 responses

This answer provided a wide variety of responses, most of which included number of volunteers and other protective services staff as well as the main FMO/OFC staff. Most offices had far more staffing, as would be expected in far more populous jurisdictions. All offices have similar or more staff, despite none of them engaging in operations like the Yukon FMO (operations consume substantial amounts of Yukon FMO time and work).

## 8. How are your staff allocated?

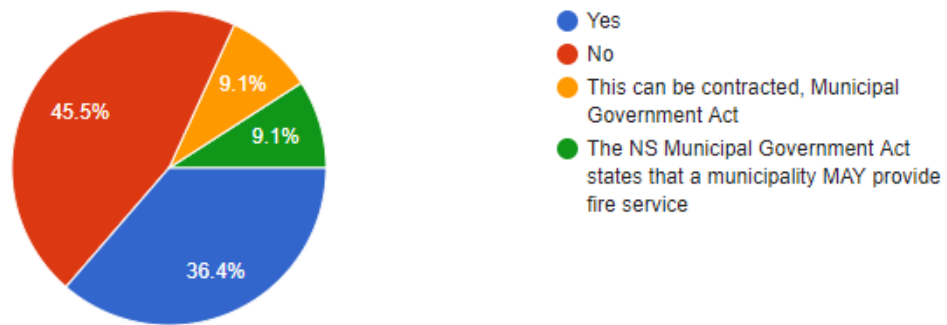


9. What level of government is responsible for:



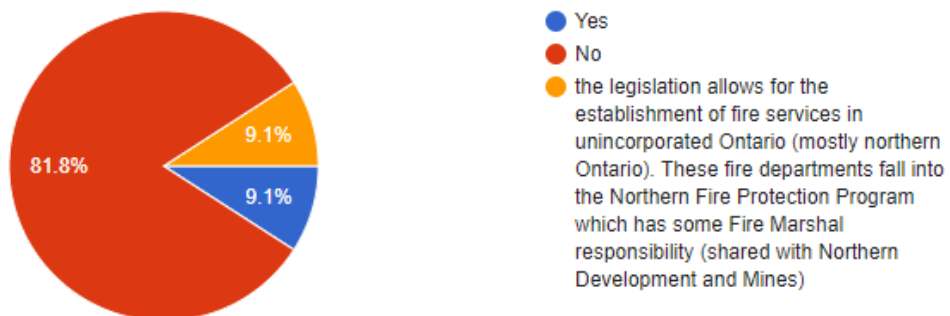
10. Is there legislation requiring fire suppression departments for MUNICIPAL governments?

11 responses



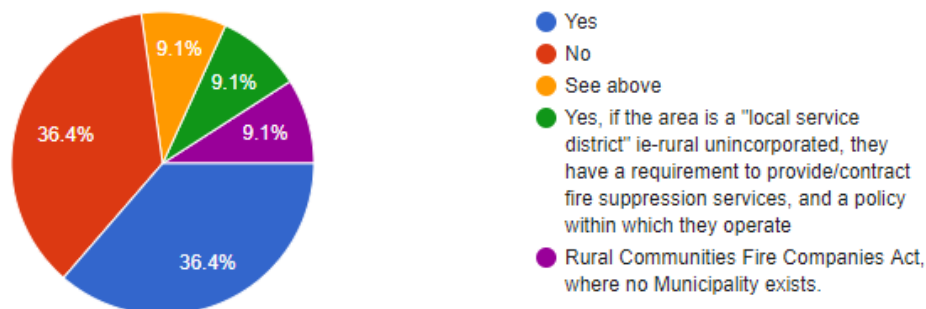
11. Is there legislation requiring fire suppression departments for NON-municipal governments?

11 responses



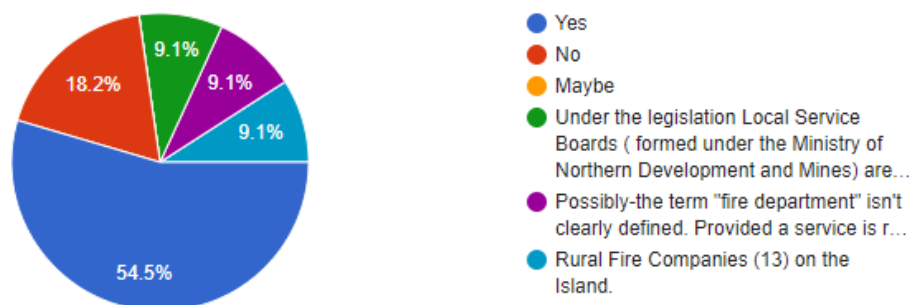
## 12. Is there legislation governing volunteer fire department operations in rural and remote communities?

11 responses

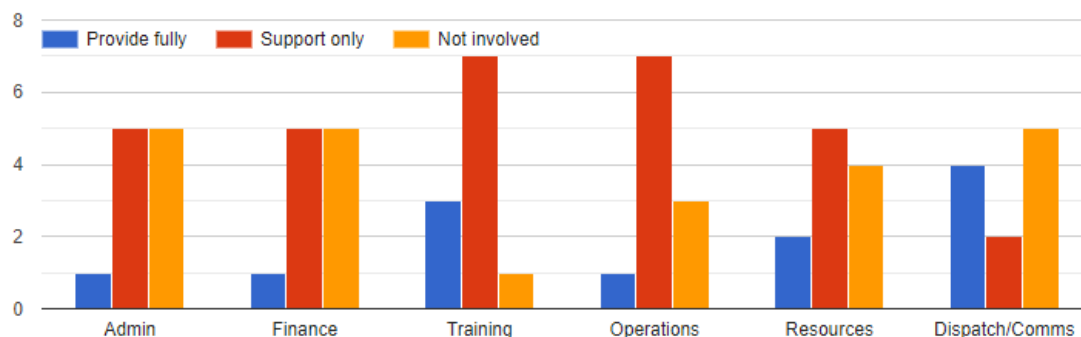


## 13. Are Societies, or other non-government organizations, permitted to operate fire departments in your jurisdiction?

11 responses



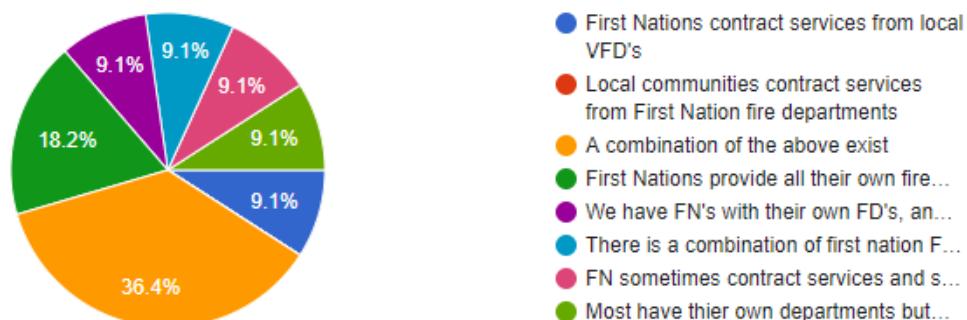
## 14. Does the FMO/OFC support/provide volunteer fire departments, or parts thereof, in remote and rural non-municipalities?



### 15. Are First Nations engaged in partnerships with local communities in the provision of fire protection?

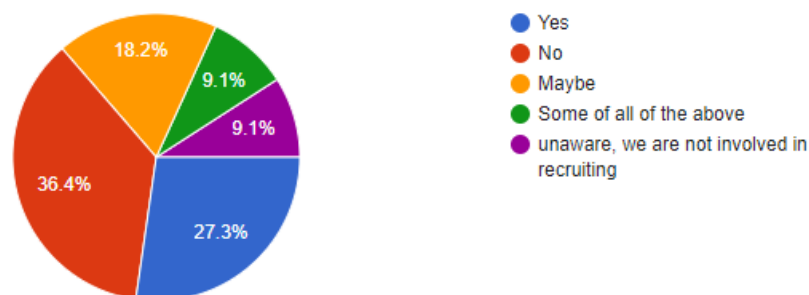


11 responses



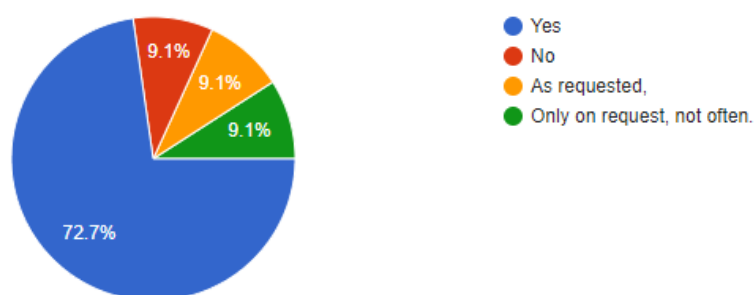
### 16. Is there targeted recruiting occurring from First Nation communities for local volunteer fire departments?

11 responses



### 17. Does the FMO/OFC provide support or operational capabilities to First Nation communities?

11 responses



18. If yes to the above question, what services or operational capabilities are provided?

8 responses

Fire Investigative and Fire Inspection Services.

When requested, the SPSA will respond to all emergency responses, including structural fires, wildfires, flooding etc. on First Nations

We provide similar services as we provide to all our municipal fire services.

The Fire Prevention Act limits us to provincial lands, however we offer all services we provide to the province (prevention, inspections, investigations) to FN's at their discretion free of charge. We cannot issue enforcement actions, however we can make recommendations to chief and council.

Old Crow would be an example of a strictly FN community with full suppression support.

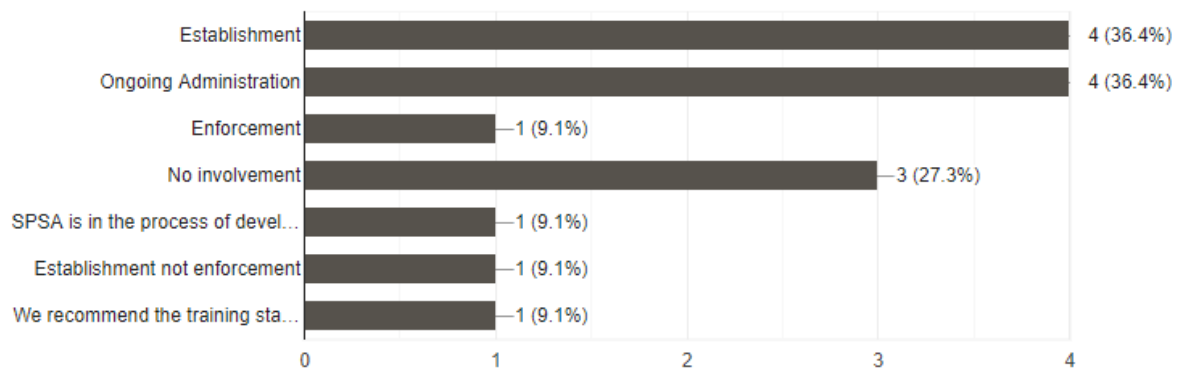
Fire investigations where the First Nation does not have the capacity.

training, management advice

Assessment and Action Plan Development to inform best practice and Industry Standards includes

19. Is the FMO/OFC responsible for the establishment and/or enforcement of minimum training standards for the province/territory?

11 responses



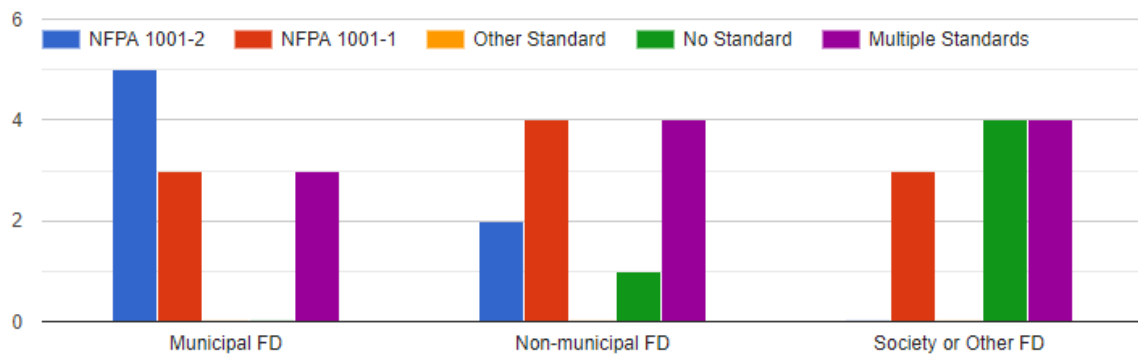
20. If the FMO/OFC is not responsible, who IS responsible for establishment and enforcement of minimum training standards?



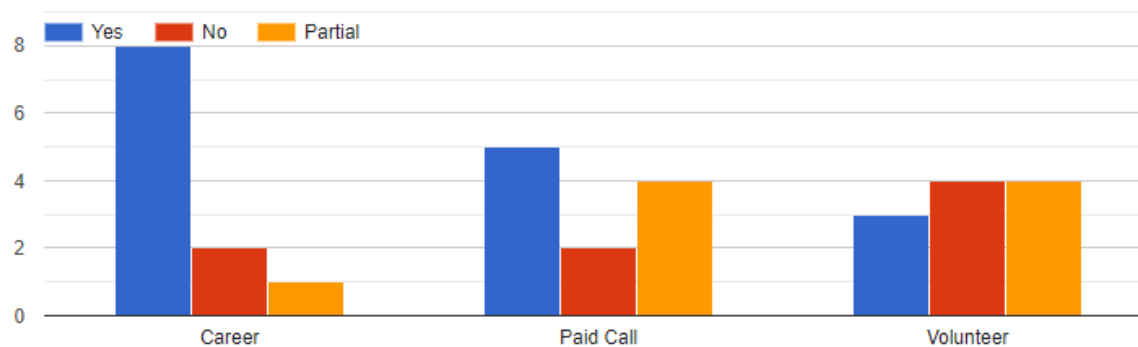
11 responses



21. What structural firefighter training standard is used in your jurisdiction?



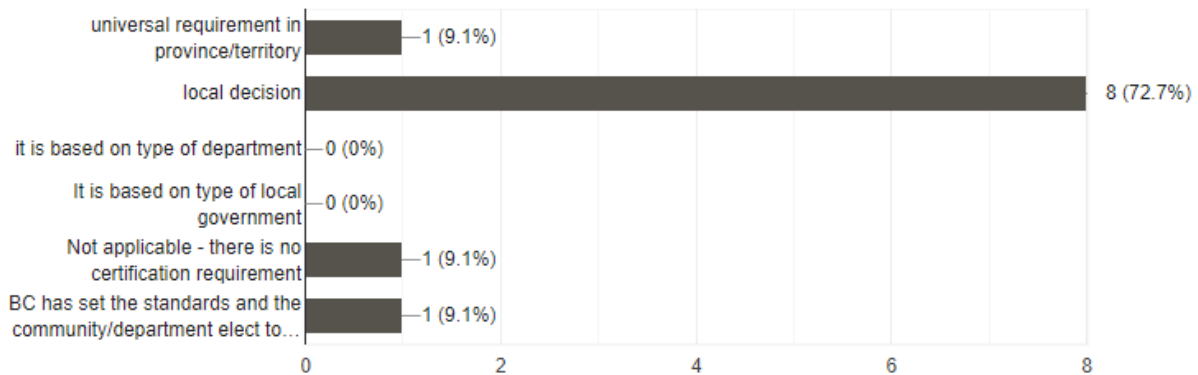
22. Are firefighters required to achieve "training certification" or demonstrate "competencies" prior to entering active duty?



23. Is the requirement for "certification" a local decision (ie. fire department or local government) or is it universal to the larger jurisdiction?

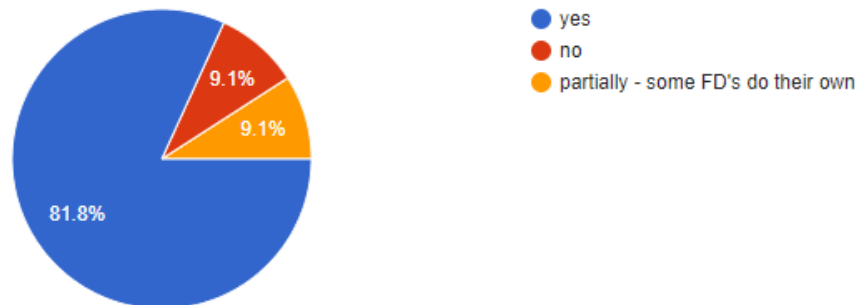


11 responses



24. Does the FMO/OFC provide and administer a fire reporting database for the entire jurisdiction?

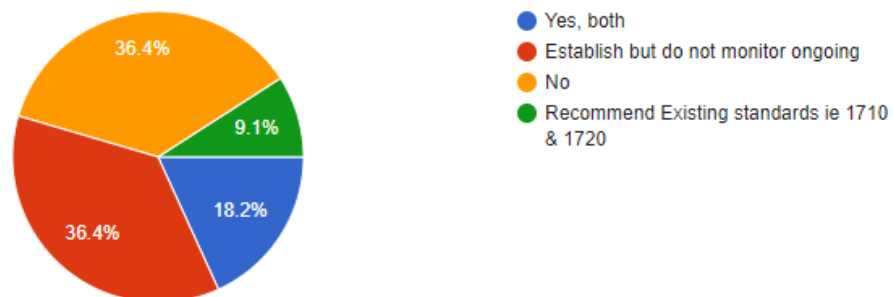
11 responses



25. Does the FMO/OFC establish and/or monitor performance measures for fire departments?



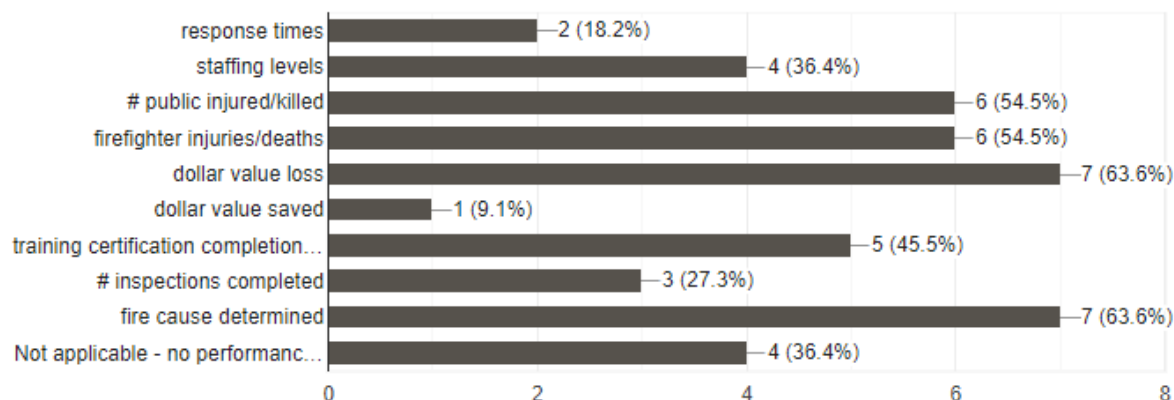
11 responses





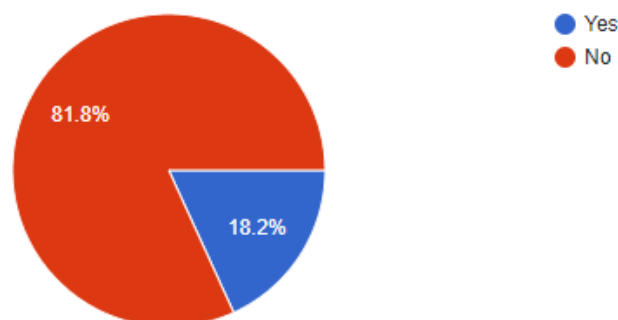
## 26. What basic performance measures are tracked?

11 responses



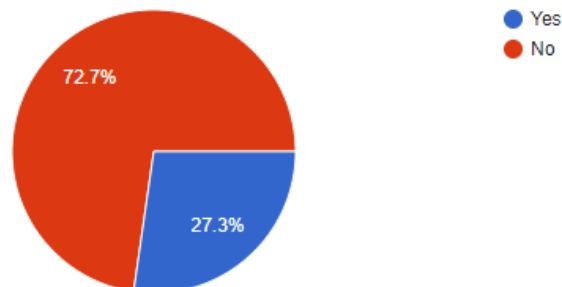
## 27. Does the FMO/OFC establish and/or enforce standards related to firefighting equipment and vehicles?

11 responses

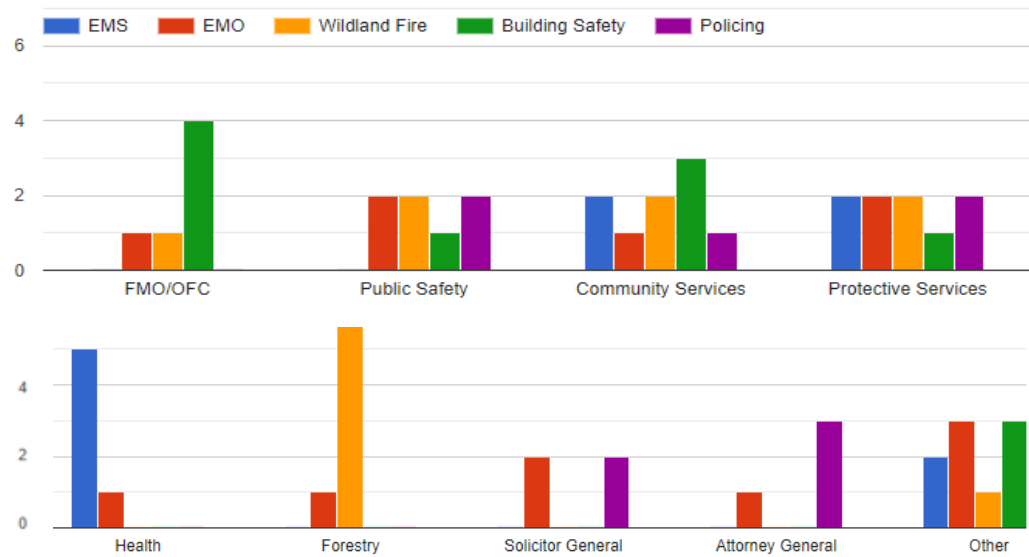


## 28. Does the FMO/OFC establish and/or enforce standards related to fire dispatch and communications?

11 responses

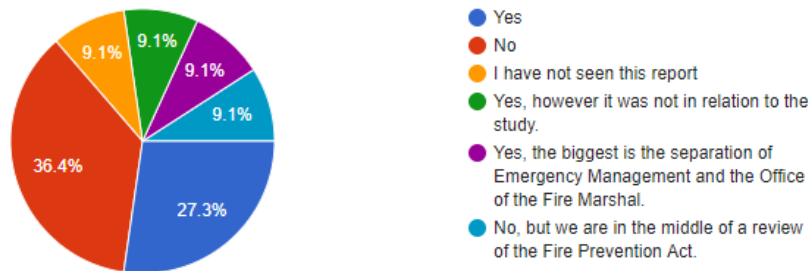


29. Which government departments do these other public safety functions report through in the province/territory?



30. Has there been a change in your organizations major mandate since the Nova Scotia Study done in 2013?

11 responses



## Appendix 9 - Example list of major legislative compliance items

<b>Workers Compensation Act and OH&amp;S</b>	
	Joint OH&S Committee within VFD if more than 20 volunteers are active (OH&S Reg Part 12)
	Joint OH&S Committee between FMO and other VFDs if they have fewer than 20 volunteers active
	Joint OH&S Committee composed of a min. 4 members (OH&S Reg Part 12)
	Committee members must be selected by their peers
	Joint OH&S Committee meetings monthly
	Joint OH&S Committee member training
	Joint OH&S Committee meeting minutes posted for all staff to read
	Facility Safety Inspections performed monthly
	Worker and Employer safe work procedure documentation
	Worker and Employer safe work procedure training
	First Aid attendant available
	First Aid Kit available in firehall
	First Aid records and documentation management program
	Young or New Worker orientation program in place
	WHMIS training for all workers annually presented
	Hearing tests annually when noise regularly exceeds OH&S specifications
	Records management of annual hearing tests
	High visibility apparel available to all workers when exposed to vehicle traffic in excess of 30 km/h
	Traffic control program in place
	Respiratory protection program in place
	Availability of SCBA for all firefighters who may be exposed to smoke or hazardous atmosphere
	Availability of at least 4 SCBA if any are used
	SCBA service, repair and testing may only be performed by a qualified person
	Annual fit-testing of every worker who may use SCBA masks and equipment
	Inspection and hydrostatic testing of SCBA cylinders in compliance with OH&S Reg
	Written procedures for fire department activities specified in OH&S Reg (SOPs and SOGs)
	Records retention program for all testing and inspection documentation
	Written and documented procedures for the maintenance, cleaning and removal from service of firefighting PPE
	Presence of a Near-Miss reporting program
	Policy that any firefighter exposed to oxygen deprived or toxic atmosphere must wear SCBA
	Presence of a Personal Alert Safety System (PASS) device for every firefighter using SCBA
	PASS Devices must be tested prior to every use of SCBA and at least weekly
	Certification of fitness to use SCBA for any FF with a known cardiorespiratory condition or shortness of breath
	Annual fill station air quality sampling by certified technician that meets applicable CSA Standard
	Ground ladder use, testing and maintenance must conform to NFPA Standards 1931 and 1932
<b>Training</b>	
	Operational service levels must correspond with firefighter training levels
	Training programs must meet, or exceed, the established operational service level requirements
	Qualified instructors and evaluators for the established operational service level
	Workers Compensation coverage must be in place for all personnel
	Compliance with OH&S Regulation requirements for any duty performed
	Comprehensive records management system for training records
	Appropriate equipment and apparatus to meet requirements of established training and operational service level
<b>Motor Vehicles Act and Regulation</b>	
	Compliance with Class 3 Driver license to operate any fire apparatus over 11,000kg
	Annual Commercial Vehicle Inspection (CVI) by a licensed inspector as per apparatus requirements
	Completion of comprehensive pre-trip inspections prior to any non-emergency use, and at training sessions
	Completion of a comprehensive post-trip inspection immediately following any emergency response
<b>Fire Prevention Act</b>	
	Designation of a Local Assistant to the Fire Marshal in order to use the powers and authority of the Act
	Presence of a local empowering bylaw for any municipal fire service
	Undertaking of fire cause investigations
	Undertaking of fire safety inspections in public and commercial buildings
<b>Employment Standards Act and Regulation</b>	
	Application of appropriate sections of the Act to municipal volunteer and paid-on-call firefighters

## Appendix 10 - Dry Fire Hydrant

In rural areas where municipal water systems are not available, dry hydrants can be used to supply water for fighting fires. A dry hydrant is analogous to a standpipe. A dry hydrant is usually an unpressurized, permanently installed pipe that has one end well below the water level of a lake or pond. For northern areas it needs to be below the typical freeze depth where it enters the water body. The underwater end has a strainer to prevent debris from entering the pipe. The above ground end drops vertically into the ground to below the frost/freeze layer. It has a hard sleeve connector to attach to the drafting hose from the fire apparatus. The connection at the surface can be either a 2.5 inch or 4-inch (shown below) outlet. Adapters are available to attach most hose coupling types and sizes.

When water is needed, a fire apparatus or portable pump will connect to the dry hydrant and pump from the lake or pond by drafting water. This is done by vacuuming the air out of the dry hydrant hard sleeve, and the fire pump with a primer. Because lower pressure now exists at the pump intake, atmospheric pressure on the water and the weight of the water forces water up into the hard sleeve, the dry hydrant, and finally into the pump. This water can then be pumped out to fire hoses.

Since no water exists within the vertical part of the system when not being used, the pipe will not freeze and break and will remain functional year-round even in freezing weather.

Figure V. Source: "What is a dry hydrant?" – Insurance Basics You Tube video, March 29, 2015.  
<https://www.youtube.com/watch?v=4aiSp2gAdas>





Figure W. Source: Kocheck Company Inc. Safety Equipment.  
<https://www.kocheck.com/shop/dry-hydrant-reflective-sign/>



Figure X. Source: South Sumpter Fire Department (2016).  
<http://www.southsumpterfire.org/?m=201602>

Example installation (exact measurements TBD based upon frost/freeze depths in area):

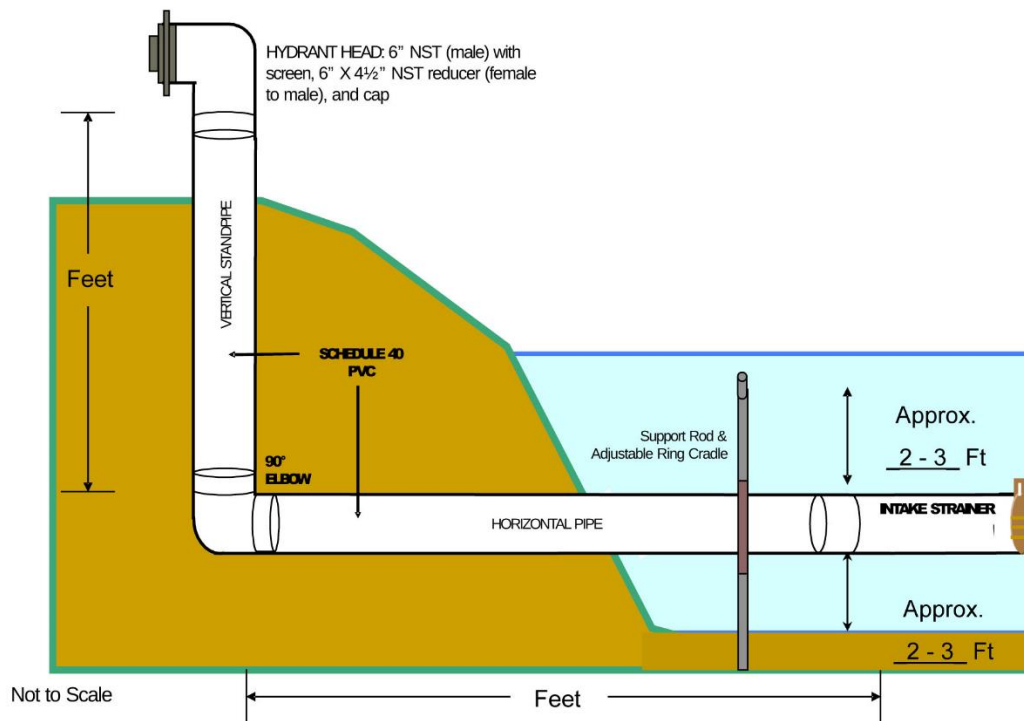


Figure Y. Source: Bob Lusk Outdoors, Valuable Pond Amenities: Siphons and Dry Hydrants.  
<https://www.bobluskoutdoors.com/articles/valuable-pond-amenities-siphons-dry-hydrants-2017-08-3603>

**Appendix 11 - YFS Training Standard Guide – 3 Level**

**Proposed 3 Level Option**  
**YUKON FIRE SERVICE**

**TRAINING STANDARDS**



This document explains how the Yukon Fire Service has established a  
fire training standards.

# Yukon

## Fire Service Training Standard

The Yukon Fire Service Training Standards are developed by the Yukon Fire Marshal's Office (FMO). These Standards have been created with input from Yukon Fire Departments (Career and Volunteer). The Fire Marshal's Office is the Authority Having Jurisdiction (AHJ) as per the Yukon *Fire Prevention Act*.

This represents the minimum standard as set out in the Yukon Occupational Health & Safety Regulations, Part 11, Section 11.03. Individual municipalities may establish higher Standards internally, with FMO permission, through local regulation or bylaw.

### Training Standards

- Yukon's Fire Fighter training standards are based on competencies and requirements from the following:
  1. National Fire Protections Association (NFPA) 1001 – Standard for Fire Fighter Professional Qualifications, 2019 Edition
    - Selected Job Performance Requirements (JPR) from Fire Fighter Level 1
      - The JPR's created meet NFPA 1001 – Standard for Fire Fighter Professional Qualifications, 2019 Edition.
      - The JPR's consist of both psychomotor and cognitive skill requirements that a candidate must possess and perform correctly while being evaluated by an FMO/AHJ approved evaluator.
  2. Selected chapters from International Fire Service Training Association's (IFSTA) Essentials of Fire Fighting and Fire Department Operations manual.
    - IFSTA's Essentials of Fire Fighting is a recognized publication by NFPA.
  3. Yukon Fire Prevention Act.
  4. Yukon Occupational Health & Safety Regulations.
    - Part 1 – General
    - Part 11 – Firefighting
  5. Other Acts, Regulations, Laws and Bylaws as determined by Federal, Territory or Municipal government.

### Fire Fighting Levels of Classification

The Yukon Fire Fighter training standards are divided into three levels of Classification. These classifications indicate the type of response and duties a fire department member can perform. These training levels correspond to the formal **Level of Service** a fire department provides through agreement between the local Society and the FMO.

The three (3) levels of Fire Fighter Classifications are:

- Fire Fighter Basic
- Fire Fighter Advanced
- Fire Fighter I - Interior

Additional Training Standards

- Driver/Operator
- Fire Officer



- Specialty Training

Each Fire Fighter Classification consists of:

- Lecture and “hands-on” drills
- Designated chapters and chapter review questions from IFSTA’s materials,
- Job Performance Requirements
- A written final exam.
- Once completed a “Certificate of Training” is issued by the FMO

NOTE: All instructors, evaluators, and proctors must be pre-approved by the FMO

### Entrance Requirements

1. All members of the Yukon Fire Service must have a valid Social Insurance Number.
2. Minimum Education Requirements
  - The ability to read and understand English (Grade 8 Education)
3. Age Requirements
  - The minimum age shall be 16 – Fire Explorer Program
  - Minimum age for active-duty firefighters shall be eighteen
4. Medical Requirements
  - Essential Job Tasks as per the Yukon Government Fire Services training standards using NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments as a guide and as approved by Yukon OH&S.
  - Community Nurse / Fire Service Physician documentation of medical assessment sent to the FMO as per the individual and their fire department classification.
  - Physical Demands Analysis per classification shall be determined
5. Driver’s License Physical
  - It is required that all class three (3) drivers complete a medical examination by a physician as required by the Yukon *Motor Vehicles Act* on a regular basis.
6. Job Performance Requirements
  - Each candidate shall be able to perform the duties (JPR) required. If the candidate cannot perform or accomplish a JPR then the candidate ***shall not*** be instructed nor be allowed to perform such tasks/duties during training or during an incident.
7. Fitness Requirements
  - Physical fitness requirements for personnel shall be developed and validated by the FMO and will require only bonafide job requirements for assessment. Basic Level assessments will not have pass/fail criteria. Interior Level will.

Fire Service Medical - Recruitment and On-going		
Fire Service Physical Fitness - Recruitment and on-going		
Incident Command System - 100 - (Self Study)	Job Performance Requirements	Yukon Fire Fighter Basic
01-General Knowledge, Personal Protective Clothing		
02-Hose Handling		
03-Self Contained Breathing Apparatus		
04-Communications, Accountability & Response		
05-Pump Operations & Fire Streams		
06-Water Supply & Fire Hose		
07 - Ground Ladders		
08-Rehabilitation Area (REHAB)		
09-Emergency Scene Traffic Control		
10-Fire & Life Safety Initiatives, Preparedness, and Maintenance		
Wildfire Orientation (Self Study)		
Yukon Fire Service Electrical Safety - (Self Study)		
Yukon FFB - WRITTEN EXAM		
Class 3 - Driver License - (If Applicable)	Job Performance Requirements	Driver/Operator
Air Brakes Endorsement - (Where Applicable)		
Emergency Vehicle Driver / Operator (If Applicable)		
Pumps and Pumping		
Introduction To Hazardous Materials	Job Performance Requirements	Yukon Fire Fighter Advanced
11-Fire Classification-Fire Extinguishers & Sprinklers		
12-Fire Detection & Smoke Alarms / Detectors		
13-Ventilation & Power Tools		
14-Incident Lighting & Utility Services		
15-Ground Cover Fire & Bulk Class A Fire (Stacked / Piled)		
16-Vehicle Fire & Storage Container / Dumpster Fire		
Yukon FFA - WRITTEN EXAM		
Hazardous Materials - Operations Level	Job Performance Requirements	Yukon Fire Fighter I
Standard First Aid / CPR / AED		
Oxygen Administration / IDC & Blood borne Pathogens		
17-Ropes & Knots		
18-Forcible Entry		
19-Primary Search		
20-Advanced Ventilation		
21-Flammable Gas Fire & Foam Operations		
22-Interior Structure Fire (Below, Level, Above)		
Yukon FF1 - WRITTEN EXAM		
Incident Command System - 200	Job Performance Requirements	Fire Officer
Fire Service Administration (Incident Reporting & Command)		
Fire Service Instructor Level 1		
Fire Officer 1 - NFPA 1021		
Emergency Scene (Fire Ground) Management) NFPA 1561		
Incident Safety Officer	Job Performance Requirements	Specialty Training
Fire Investigation Level 1		
Rescue Team - RIT / RAT		
S-215 Wildland Urban Interface - (When Available)		
Vehicle Extrication (Where Applicable)		
Boat Training / Water Rescue - (Where Applicable)		
Water Operations (Summer)		
Ice Operations (Winter)		

# Proposed 2 Level Option

# YUKON FIRE SERVICE

## TRAINING STANDARDS GUIDE



This document explains how the Yukon Fire Service has established a fire training standards.

# Yukon

## Fire Service Training Standard

The Yukon Fire Service Training Standards are developed by the Yukon Fire Marshal's Office (FMO). These Standards have been created with input from Yukon Fire Departments (Career and Volunteer). The Fire Marshal's Office is the Authority Having Jurisdiction (AHJ) as per the Yukon *Fire Prevention Act*.

This represents the minimum standard as set out in the Yukon Occupational Health & Safety Regulations, Part 11, Section 11.03. Individual municipalities may establish higher Standards internally, with FMO permission, through local regulation or bylaw.

### Training Standards

- Yukon's Fire Fighter training standards are based on competencies and requirements from the following:
  1. National Fire Protections Association (NFPA) 1001 – Standard for Fire Fighter Professional Qualifications, 2019 Edition
    - Selected Job Performance Requirements (JPR) from Fire Fighter Level 1
      - The JPR's created meet NFPA 1001 – Standard for Fire Fighter Professional Qualifications, 2019 Edition.
      - The JPR's consist of both psychomotor and cognitive skill requirements that a candidate must possess and perform correctly while being evaluated by an FMO/AHJ approved evaluator.
  2. Selected chapters from International Fire Service Training Association's (IFSTA) Essentials of Fire Fighting and Fire Department Operations manual.
    - IFSTA's Essentials of Fire Fighting is a recognized publication by NFPA.
  3. Yukon Fire Prevention Act.
  4. Yukon Occupational Health & Safety Regulations.
    - Part 1 – General
    - Part 11 – Firefighting
  5. Other Acts, Regulations, Laws and Bylaws as determined by Federal, Territory, or Municipal government.

### Fire Fighting Levels of Classification

The Yukon Fire Fighter training standards are divided into two levels of classification. These classifications indicate the type of response and duties a fire department member can perform. The training levels correspond to the formal **Level of Service** a fire department, the FMO and community sets.

The two (2) levels of Fire Fighter Classifications are:

- Fire Fighter Basic (with an opt-in OR out-out on SCBA)
- Fire Fighter Interior – FF1

Additional Training Standards

- Driver/Operator

- Fire Officer
- Specialty Training

Each Fire Fighter Classification consists of:

- Lecture and “hands-on” drills
- Designated chapters and chapter review questions from IFSTA’s materials,
- Job Performance Requirements
- A written final exam.
- Once completed a “Certificate of Training” is issued by the FMO

NOTE: All instructors, evaluators, proctors must be pre-approved by the FMO

### Entrance Requirements

1. All members of the Yukon Fire Service must have a valid Social Insurance Number.
2. Minimum Education Requirements
  - The ability to read and understand English (Grade 8 Education)
3. Age Requirements
  - The minimum age shall be 16 – Fire Explorer Program
  - The minimum age for active duty members shall be eighteen.
4. Medical Requirements
  - Essential Job Tasks as per the Yukon Government Fire Services training standards using NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments approved with collaboration with Yukon WCB/OH&S.
  - Community Nurse / Fire Service Physician documentation sent to the FMO as per the individual and their fire department classification.
  - Physical Demands Analysis per classification shall be a requirement
5. Driver’s License Physical
  - It is required that all class three (3) drivers complete a medical examination by a physician as required by the Yukon *Motor Vehicles Act* on a regular basis.
6. Job Performance Requirements
  - Each candidate shall be able to perform the duties (JPR) required. If the candidate cannot perform or accomplish a JPR then the candidate ***shall not*** be instructed nor be allowed to perform such tasks/duties during training or during an incident.
7. Fitness Requirements
  - Physical fitness requirements for personnel shall be developed and validated by the FMO and will require only bonafide job requirements for assessment. Basic Level assessments ***will not*** have pass/fail criteria. Interior Level will.

Fire Service Medical - Recruitment and On-going	All levels	
Fire Service Physical Fitness - Recruitment and on-going		
Incident Command System - 100 - (Self Study)		
Introduction To Hazardous Materials		
01-General Knowledge, Personal Protective Clothing		
02-Hose Handling		
03-Self Contained Breathing Apparatus (opt-in <del>or</del> opt-out)		
04-Communications, Accountability & Response		
05-Pump Operations & Fire Streams		
06-Water Supply & Fire Hose		
07-Ground Ladders		
08-Rehabilitation Area (REHAB)		
09-Emergency Scene Traffic Control		
10-Fire & Life Safety Initiatives, Preparedness, and Maintenance		
11-Basic Fire Suppression Techniques (ground fire, vehicle fire, structural fire)		
12-Fire Extinguishers		
Wildfire Orientation (Self Study)		
Yukon Fire Service Electrical Safety - (Self Study)		
Yukon FFB - WRITTEN EXAM		
Class 3 - Driver License - (If Applicable)		
Air Brakes Endorsement - (Where Applicable)		
Emergency Vehicle Driver / Operator (If Applicable)		
Pumps and Pumping		
Hazardous Materials - Operations Level		
Standard First Aid / CPR / AED		
Oxygen Administration / IDC & Blood borne Pathogens		
13-Fire Classification-Extinguishers & Sprinklers		
14-Fire Detection & Smoke Alarms / Detectors		
15-Ventilation & Power Tools		
16-Incident Lighting & Utility Services		
17-Ropes & Knots		
18-Forcible Entry		
19-Primary Search		
20-Advanced Ventilation		
21-Flammable Gas Fire & Foam Operations		
22-Interior Structure Fire (Below, Level, Above)		
Yukon FF1 - WRITTEN EXAM		
Incident Command System - 200		
Fire Service Administration (Incident Reporting & Command)		
Fire Service Instructor Level 1		
Fire Officer 1 - NFPA 1021		
Emergency Scene (Fire Ground) Management) NFPA 1561		
Incident Safety Officer		
Fire Investigation Level 1		
Rescue Team - RIT / RAT		
S-215 Wildland Urban Interface - (When Available)		
Vehicle Extrication (Where Applicable)		
Boat Training / Water Rescue - (Where Applicable)		
Water Operations (Summer)		
Ice Operations (Winter)		

# Yukon Firefighter Training Standard - Proposed 2 Level

Yukon Firefighter - Basic

Driver/Operator

Job Performance Requirements

Yukon Firefighter - Interior (FF-1)

Yukon Fire Officer

Specialty Training

## Appendix 13 - Fire Protection in a Box - Sample Equipment Quotation

Description	Qty	Price
<b>200 Gallon Tank</b> <ul style="list-style-type: none"> <li>- Design to fit standard truck box</li> <li>- Tank fill connection port</li> <li>- Tank suction connection port</li> <li>- Drain port</li> <li>- ULC baffling</li> <li>- Removable lid</li> <li>- Fill tower</li> <li>- Side brackets for tank hold down straps</li> <li>- Tool/equipment storage not included (needs to be discussed before we can quote)</li> </ul>	1	\$7,670
<b>10lbs ABC Extinguisher</b> <ul style="list-style-type: none"> <li>- Extinguisher only</li> </ul>	5	\$433
<b>Water Extinguisher</b> <ul style="list-style-type: none"> <li>- Extinguisher only</li> </ul>	2	\$381
<b>Portable pumps 250 GPM</b> <ul style="list-style-type: none"> <li>- 1.5" Outlet</li> <li>- 2.5" Inlet</li> </ul>	1	\$6,120
<b>Hard Suction Hose with Cam Locks – 2.5"</b> <ul style="list-style-type: none"> <li>- Orange helix type PVC transfer hose</li> </ul>	2	\$300
<b>Forestry Hose 1.5" x 50'</b> <ul style="list-style-type: none"> <li>- Yellow</li> <li>- Forestry Couplings</li> </ul>	6	\$465
<b>Rubber Jacket Hose 1.5" x 50'</b> <ul style="list-style-type: none"> <li>- Black, ribbed rubber</li> <li>- Forestry Couplings</li> </ul>	6	\$780
<b>Poly Fog Nozzle (Red)</b> <ul style="list-style-type: none"> <li>- Forestry adapter x 1.5" MNPT</li> </ul>	2	\$44
<b>CO / Smoke Alarms (Battery)</b>	10	\$715
<b>Pulaski</b> <ul style="list-style-type: none"> <li>- Fiberglass handle</li> </ul>	4	\$146
<b>Macleod Tool</b>	2	\$392

Estimated Total \$17,446  
+ taxes  
+ Shipping \$600 (approx.)



## Appendix 14 – WordCloud Diagram Community Engagement Survey – Q. 19

Question 19 of the Community Engagement Survey elicited many individual expressions of opinion from survey respondents. Many were personal and confrontational toward the system. Some were supportive of the system. Of importance to the review, however, was the content of the responses. This following WordCloud diagram illustrates the words that most frequently appeared within the responses to the question. Larger words signify terms used the most.



Figure Z. Image reproduced from [www.WordClouds.com](http://www.WordClouds.com) using the content of Question 19 responses to the Community Engagement Survey prepared by Response Specialties for this review.

## Appendix 15 – FMO Data on current training qualifications within YFS

The following table illustrates the current training levels of Yukon firefighters in VFDs under the authority of the FMO. The numbers provided below by the FMO are current as of August 3, 2021.

Table produced by FMO on request of Response Specialties

New members/have not completed minimum requirements	53 (45.7%)
Safe Response & Exposure Protection (basic)	36 (31.0%)
Exterior Operations (Advanced)	6 (5.2%)
Interior Operations (FF1)	19 (16.0%)
FF2	2 (1.7%)

The chart identifies that nearly 48% of department members have not achieved full qualification at any level. An additional 31% have achieved Basic FF. In sum, this identifies that the overwhelming majority (79%) of current (and likely past) YFS members will only ever achieve qualification to the Basic FF Level, at best.

This statistic clearly illustrates the need to the FMO, and the YFS, to designate the Basic FF Level as the minimum training level as well as the minimum departmental Level of Service. All training focus should be aimed at that level, with only supportive efforts targeting advanced training up the FF1 – Interior.

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- NFPA 1583 – Standard on Health-related Fitness Program for Fire Department Members, National Fire Protection Association, USA
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