

Fire Department Reviews

Main Report

Thompson Nicola Regional District Departments:

Blackpool, Pritchard, Vavenby

Municipal Departments:

Ashcroft, Clearwater, Lytton

Improvement District Department:

Spences Bridge

Society Departments:

Little Fort, South Green Lake, Tobiano, McLure

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Table of Contents

Executive Summary	4
Scope of Work and Methodology	6
Major Issues	7
Organizational and Legal Structure of the Fire Services.....	11
Introduction	11
Local Government Departments.....	12
Society Departments	14
New Fire Safety Act.....	17
Mutual Aid Agreements.....	24
Powers & Authority	25
Mutual Aid Operating Committee.....	25
Incident Command	26
Training and Accountability Systems	26
Limiting or Managing Call Outs.....	27
Waivers and Indemnities	27
Dispatch Provider	28
Occupational Health & Safety	28
Municipal Departments.....	30
RD Departments.....	30
Society Departments	31
Improvement District Department	32
Formal Requirements	32
Joint Health and Safety Committee	34
Fire Department Records.....	38
Operational Guidelines.....	40
Apparatus and Equipment.....	41
Budgets and Financing	43
Meetings with Fire Chiefs.....	44
Standards of Service.....	45
NFPA 1221.....	47
NFPA 1720.....	47
Training Standards and Requirements.....	48

Playbook – Impact of Implementation	48
Volunteer Recruitment and Retention	51
Fire Underwriters Survey	58
Recommendations and Priorities	67
Appendix 1: Potential Transition Framework for Transfer of Society Departments to TNRD.....	72
Appendix 2: Fire Department Records	74
Appendix 3: Workload, Budget Impacts and Financial Sustainability of Small Fire Departments	80
Appendix 4: New OH&S Regulation on Joint Committees	85

Executive Summary

The Thompson Nicola Regional District (the “Regional District” or the “TNRD”) has undertaken a review of its three fire departments to clarify the level of service being provided, as well as to understand its obligations in terms of regulatory requirements. In a similar way, three municipalities (Ashcroft, Clearwater and Lytton); four societies (Little Fort, South Green Lake, Tobiano and McLure) (the “Societies”) and the Spences Bridge Improvement District have also participated to clarify similar issues for their respective fire departments.

The review is timely for a number of reasons including the recent introduction by the British Columbia Office of the Fire Commissioner (the “OFC”) of the Playbook¹ which specifies minimum training standards for fire departments based on the level of service selected by the departments’ “Authority Having Jurisdiction” (“AHJ”). The Playbook requires the AHJ, which in these cases are the TNRD, the four societies, the three municipalities and the improvement district to establish the level of service and to ensure compliance. The provision of fire services in BC is also guided by the *Fire Services Act* (BC)² as well as the requirements of the *Workers Compensation Act* (B.C.) (the “WCA”) and the *Occupational Health and Safety Regulation*, B.C. Reg. 296/97 (the “OH&S Regulations”). These statutory and regulatory structures impose various training, supervision and records keeping obligations, including regular safety committee meetings and reports. The operation of a fire service also requires apparatus and equipment to be maintained on a regular basis and, for much of the principal equipment, to be replaced or refurbished within specified timeframes.

The reviews conducted with each fire department were very positive, with chief officers and staff discussing all matters in a frank and open manner. Without exception, they were aware of the issues before them and committed to ongoing improvement to meet new and, in most cases, more complex requirements. At the same, they face challenges including recruitment and retention issues, a higher level of regulatory requirements including more detailed record keeping, and rising call volumes in the context of constrained budgets.

Moving forward, the major issues before the 11 fire departments (the “Departments”) include: where not already made, a formal declaration of the level of service as required by the Playbook; identifying and bridging training gaps to the chosen level of service; and ensuring that all OH&S requirements are met. The requirements for the various levels of service are dealt with in detail further in this report as well as in the individual department reports and they are extensive. Depending on the level of service chosen, they require increasingly complex levels of training for firefighters and officers. These requirements are specified in the Playbook, are mandatory and will require both more training and improved records keeping to enable the departments properly to track each individual member and officer’s proficiencies and

¹ Office of the Fire Commissioner, *British Columbia Fire Service Minimum Training Standards: Structure Firefighters Competency and Training Playbook* (2nd ed., May 2015) (the “Playbook”).

² The *Fire Services Act* is slated to be replaced by the *Fire Safety Act* (B.C.), which was passed in 2016, but awaits the development of regulations before being proclaimed in force. The implications of the new *Fire Safety Act* are considered below.

qualifications. Ensuring that firefighters are properly trained, and that officers have the proficiencies needed to manage incidents, has to be a primary focus in the short term.

Record keeping is an area that has presented significant challenges for the part-time fire chiefs and officers, and it is recommended that the various AHJs provide assistance in terms of systems and support personnel to ensure compliance. Certain of the AHJs will also need assistance in this area: closer collaboration between the TNRD and the Societies, which are supported by TNRD-collected taxes, is recommended. Support should also be provided to assist the 11 fire chiefs with scheduled training which occurs on a regular, usually weekly practice at the fire hall, but also with more complex training for live-fire exercises, joint training and speciality training, which may be managed by working collaboratively at a regional level.

The authority of fire departments to respond and provide service is determined by their establishment and operational bylaws and they may only operate within those specific permissions. On review, it was determined that these bylaws should be reviewed and updated to address various regulatory changes (e.g., the introduction of the Playbook and incipient introduction of the new *Fire Safety Act*), and to better address certain administrative and reporting issues. These updates would ensure that each department has the powers it needs to operate within its local area and in any other areas required pursuant to a mutual aid agreement.

Some of the departments operating in the TNRD are covered by mutual aid agreements, though there are relatively few given the number of Departments that were reviewed. Various suggestions are made below regarding matters that could usefully be addressed in the updated agreements. It may also make sense to assess whether a broader regional aid structure should be contemplated. The latest wildfire season has demonstrated the need for area Departments to be able to respond together, quickly, efficiently and effectively, when required. A properly developed mutual aid structure will ensure that fundamental matters, such as incident command, personnel accountability systems, effective communications and interoperable equipment, are worked out in advance, rather than in the face of a major event.

In summary, the TNRD, the municipalities, societies and the improvement district are facing the same issues as other local authorities in that the provision of fire services has changed. The changes include meeting increasingly onerous regulatory requirements such as the need to define a level of service to be provided and then to ensure that firefighters and fire officers have been trained and assessed to meet that level of service. The requirements for training and operation have become more complex and require greater levels of oversight and record keeping. Many of these requirements are mandatory, while others represent best practice, and in each case the AHJ needs to ensure these are being met to meet its obligations, minimize risk and ensure public safety.

Scope of Work and Methodology

The review commenced in May 2017 and the project was divided into several phases as follows:

Phase 1 – Review of Background Material and Administrative Structures

This phase focused on a review of the existing structures in place for the delivery of fire service protection by each of the AHJs. The review involved conducting a thorough analysis of the existing governance and administrative arrangements, and general operational capabilities of the Departments, including a review of all relevant background materials, such as the establishment and operational bylaws, mutual and automatic aid agreements, budgets, annual call volumes, the Departments' operational guidelines, and similar matters.

The review was conducted in the context of applicable statutory requirements and fire services best practices, including the *Fire Services Act* (B.C.) (and orders made thereunder), the Playbook, WCA and OH&S Regulation, Fire Underwriters Survey (or "FUS") requirements, and NFPA³ standards. The potential impact of the new *Fire Safety Act* (B.C.) is also considered and is outlined below.

Phase 2 – On-site Review of the Departments and Stakeholder Input Sessions

This phase consisted of two parts. The first was an on-site assessment of the Departments including a consideration of the operational context followed by a review of each Department's existing organizational and administrative structure. Gaining an understanding of a fire department's capabilities, operational needs, training programs and service requirements, is critical to developing an overall plan for each Department's future needs, and for ensuring that they are able to deliver their services safely, effectively and efficiently.

To assess fire service capabilities, the Consultants met with each Department and its respective Fire Chief. In some cases, other officers or Department members also were present during the review. The review included an assessment of the current operational model, the fire halls, the apparatus and equipment, maintenance programs, fire prevention and training programs as well as emergency communications and dispatch. The Consultants reviewed a sampling of training and other records kept by each Department and also sought to identify the current and future major risks facing each of the fire service districts.

Phase 3 – Development of Individual Department Reports

Individual reports were provided to each department in August for their review and correction following which each of these will be finalized.

³ National Fire Protection Association

Phase 4 – Development of a Main Report

In addition to the individual reports a main report was provided in early September which reviews the over-arching issues affecting the Departments and for the AHJs.

Major Issues

Structural firefighting is principally a local responsibility – fire departments typically are created and operated either by local governments, or by private, not-for-profit societies, or some combination of the two. There is relatively modest support for the fire service from the provincial government which means that, for departments which operate outside of significant metropolitan areas, the service is highly dependent on local community engagement and involvement. A large majority of the 400 or so fire departments in the province rely on volunteers or paid-on-call members to deliver their services, either in whole or in large part.

Each of the Departments covered by this review is a volunteer or paid-on-call fire service. Unlike some departments within the TNRD, such as Kamloops Fire Rescue which employs a significant career contingent supported by auxiliary members, these departments largely rely on the good will and commitment of volunteers to sustain the delivery of fire protection and other emergency responses to their respective communities. The Departments reviewed span the range of typical governance structures, as well as one which is (in our experience) unique:

- municipal departments (“Municipal Departments”) established and operated by Ashcroft, Clearwater, and Lytton;
- Regional District departments (“RD Departments”), operating in local service areas established by the TNRD and directly overseen by the TNRD – Blackpool, Pritchard and Vavenby;
- an improvement district department (the “SBVFD”), established and operated by the Spences Bridge Improvement District (the “SBID”) as authorized by the SBID’s letters patent; and
- uniquely, a number of privately-created and operated departments (the “Society Departments”) – Little Fort, South Green Lake, Tobiano and McLure - governed and established by not-for-profit societies (the “Societies”), which operate within a service area established by the TNRD, and receive their principal funding from the TNRD, but which are not otherwise formally overseen, associated with, empowered or regulated by the TNRD.⁴

The governance and legal structures will be examined in greater detail later in this report. A number of factors, including, but not limited to, those noted below, present significant challenges to the sustainability of the current approach to fire service delivery, both within the TNRD and in

⁴ The structure is unique in that the TNRD’s involvement is only to contribute funding to the Departments, and does not include authorization of the service being provided or a service contract with the relevant Society.

the province more generally. Those challenges have driven the evolution of governance and oversight requirements by local governments, increased the overall cost of service delivery, and prompted a transition away from private, purely volunteer departments that were more prevalent in the 1970s and 1980s. These challenges include:

- increasing health and safety concerns and formal occupational health and safety requirements;
- growing risk management/liability concerns;
- legislative changes (e.g., the Playbook and new *Fire Safety Act*);
- evolving Fire Underwriters rating criteria;
- public expectations and lifestyles shifts;
- demographic changes in smaller communities, including, in some cases, an aging and/or static/declining population and in others, a growing community of retired residents moving in from large urban and suburban communities;
- the growing transition of fire departments into “all hazard” response agencies;
- the impact of changing economic and employment realities; and
- a lack of available time (and interest) for volunteer and paid-on-call fire chiefs, officers and members to manage the burgeoning administrative requirements.

These changes have been profound in terms of their impact on the volunteer/paid-on-call departments. These departments are faced with a growing regulatory and administrative burden, which their volunteer and paid-on-call members are generally not in a position to manage without increased assistance in terms of both administrative and financial support from local government. Local governments, in turn, are facing increased demands for service, as demographics change, populations age, and urban dwellers increasingly retire into smaller, rural or semi-rural communities, bringing with them elevated expectations for service.

In many respects, a fundamental issue remains poorly defined: determining what constitutes a “fire department” and what reasonably can be expected of it. The provision of fire services is optional in BC, and there is no provincial statute which actually defines what constitutes a fire department.⁵ Instead, it is necessary for each jurisdiction to determine whether to have a fire department and, if so, decide how to staff, operate, fund and govern it, within the context of the overall regulatory environment within which such a service must operate. In this regard, if a local jurisdiction intends to deliver a volunteer fire service, in broad generic terms it must assemble the following basic components:

⁵ Only the City of Vancouver is required to have a fire department, as a result of the terms of its Charter. Even the new *Fire Safety Act* (B.C.), which was passed in 2016 and awaits enactment, does not define what constitutes a “fire department”.

- a group of individuals who possess a willingness and ability to respond to calls from residents for assistance to attend a fire (or other emergency) with the intent of extinguishing or controlling its spread or mitigating its effects;
- the means to enable such individuals to attend an incident – i.e., sufficient apparatus, equipment, appropriate training and a sufficient supply of, and/or means of transporting, water;
- a source of funds to support and sustain the provision of the means; and
- a governance and oversight framework that ensures the operation of the service complies with mandatory statutory and regulatory requirements.

While it is up to each jurisdiction to determine the specific nature of its department and scope of services provided, once created, any department must meet certain minimum requirements under the WCA and related OH&S Regulation, as well under the *Fire Services Act* (and soon, the *Fire Safety Act*), including the minimum standards for training specified by the recently instituted Playbook. In some respects, the Playbook has done the most to define what constitutes a “fire department”, by requiring the AHJ, whether local government or society, to positively determine what level and type of service is to be provided by the department or departments for which it is responsible. This determination and corresponding declaration of a Service Level, then determines or affects training, staffing, equipment and apparatus requirements. It also materially impacts what services are provided and what level of response a department can provide.

As a separate but related matter, the Fire Underwriters’ rating criteria also provide a touchstone for determining what is required to have a fire department. In addition to life-safety and protection of property, one of the returns that a community receives from investing in its fire department is the potential for a material reduction in the cost of insuring residential and commercial properties. A ratable department, however, must meet minimum standards specified by the Fire Underwriters in relation to (among other things):

- staffing (a minimum of 15 plus a fire chief);
- principal apparatus (a triple combination pumper, which typically has to be less than 20 years old) and, for areas without hydrants, an appropriate water tender; as well as related equipment (fire hose, SCBA, personal protective equipment, ladders, related tools, etc.); and
- facilities (typically a purpose-built fire hall with room for all apparatus and equipment).

While the Playbook and Fire Underwriters’ requirements have done much to provide a minimum standard, it remains up to the local authority to determine the actual form and function of the fire department. An illustration of the wide disparity or range in terms of fire departments is apparent among even the 11 Departments reviewed, which vary significantly in such key components as:

- total number of members;
- average number of members turning out to incidents;
- range of services provided;
- number, type and frequency of responses;
- number and age of apparatus/vehicles;
- size, functionality and age of fire hall;
- annual budget levels; and
- size of tax base and cost to residents for the service provided.

At the same time, the regulatory structure and, to a lesser degree, Fire Underwriters' criteria, establish certain minimum requirements that all fire departments need to meet. Those minimum criteria carry with them corresponding costs, and failure to meet them gives rise to risk and the potential for liability. The challenges of ensuring long term sustainability of fire departments, particularly in terms of costs, are significant to all departments: they are particularly material to those departments serving small populations with correspondingly limited tax bases.

The clarity provided in the Playbook, in terms of the accountability of the AHJ for setting a Service Level, and for the department in terms of ensuring that minimum training standards (and other legislative requirements are met), may be a catalyst for more innovation, collaboration and standardization in the approach taken by AHJs in the operation, administration and financing of volunteer and paid-on-call departments. One response to address these challenges has been the creation of sub-regional and regional departments, e.g. Regional District of Central Kootenay, Kootenay Boundary Regional Fire Rescue Service and the emerging sub-regional department in the Creston Valley. The Kootenay Boundary Regional Fire Service and the proposed Creston Valley structure include both incorporated (municipal) and unincorporated portions of the relevant regional district in the service area. Other jurisdictions, such as the Columbia Shuswap Regional District (the "CSR D"), have innovated by merging some taxation areas to provide "critical mass" and better enable the funding of all involved departments.

The AHJs, regardless of the Service Level selected, must ensure compliance with training and other legislative requirements related to health and safety, as well as providing the funding to meet minimum standards for each department to mitigate risk and potential liability. Part of the goal of this report is to ensure that each AHJ has a clear understanding of the minimum standards and requirements for operating a fire service. In terms of addressing potential challenges to sustainability, there will need to be enhanced collaboration, cooperation, sharing of costs and standardization, to enable each AHJ to provide the necessary organizational infrastructure at an affordable cost.

Organizational and Legal Structure of the Fire Services

Introduction

As noted above, it needs to be recognized that, for local governments, fire departments are an optional service. Unlike police and ambulance, which are established under and/or operate pursuant to provincial statutes and have a uniform range of powers across the province, a fire department only has the power and authority granted to it under the local bylaw which creates and defines its operations, or are specified in contract with its clients. Outside of its operating jurisdiction – which, in the case of a service established by a regional district or improvement district, is the boundaries of the local service area, and for municipalities, are typically the municipal boundaries⁶ – a fire department has no specific authority to act at or to respond to an incident. Care must be taken, therefore, to ensure that each Department has the full range of powers needed to respond effectively to incidents within its jurisdiction to mitigate potential risk and liability concerns. Where it is responding outside of its ordinary jurisdiction, express consideration should be given to the source of a Department's powers to respond to and operate at an incident – whether in a mutual or automatic aid agreement, under a fire service contract or in support of another emergency response agency, such as the provincial Wildfire Service.

Similarly, there is no standard range of services defined for a fire department. A department created by local government is authorized to provide only those services which are stipulated in its service establishment and operational bylaws. A department operated by a private society will provide services agreed with its clients or set out in its constitutional documents. For local governments, as fire departments are the only “all hazards” response agency which they directly control, we recommend that both the grant of powers and authorization to respond to incidents be very broadly cast, but that their exercise be made subject to training and the availability of necessary personnel and equipment.

There are four types of fire services operating in the TNRD:

- Municipal Departments, which are established and operated by municipal governments;
- the RD Departments, which are established and operated by the TNRD;
- the SBVFD, which is an improvement district department established and operated by the SBID; and
- an unusual hybrid structure, in which the TNRD has created local service areas, and provides on-going and material financial support to privately-operated fire departments – the Society Departments – but has not actually established or authorized the provision of fire services.

⁶ A “private” fire service, one that does not operate under specific local government authority, does not have boundaries *per se*. Rather it has a series of clients to whom services are provided. Its authority in relation to non-clients, whether a local government or area residents, is less clear.

In terms of general issues, the Departments which are established and operated by the local governments – the Municipal Departments, the SBVFD (an Improvement District) and the RD Departments (collectively, the “Local Government Departments”) – share many features and issues. These will be considered as a group, with any differences or issues particular to one or more local governments, highlighted as appropriate. In the individual Department reports, we have recommended that the constituting bylaws for the Local Government Departments be updated to address statutory changes – both in the form of the new Playbook requirements and the anticipated implementation of the new *Fire Safety Act*. We also have provided some views on updating the particular language for each bylaw. Those particular comments are not repeated here, though the general concepts affecting such bylaws are further described.

The TNRD, which recently revised the bylaw creating local advisory committees, also needs to bring its operational bylaws into line with the new role created for those committees. We would recommend that it create a single operational bylaw covering all of its Departments, to ensure uniformity and to make subsequent management of the bylaw structure easier.⁷

The Society Departments, however, present a relatively unique set of issues and will be considered separately.

None of the views or analysis provided in this report, or in the individual Department Reports, constitutes or should be construed as legal advice. Each AHJ, whether a local government or independent society, should review any advice or suggestions provided with their usual legal advisors or through their usual legal processes.

Local Government Departments

Each Local Government Department requires an establishment and operational bylaw. These bylaws are critical to ensure that, in relation to each Department:

- the service area is defined;
- the services being provided are properly described (including for both emergency operations and non-emergency responsibilities). As suggested above, the authorized services should be broadly cast, subject to training, and available personnel and equipment. A process for approving the expansion of services offered should be described (e.g., with CAO approval, subject to necessary budget authorization from the relevant Council or Board);
- a process is established for setting (and revising) the Service Level under the Playbook, and reporting on same to the relevant AHJ;⁸

⁷ Many regional districts, including, for example Columbia Shuswap, Fraser-Fort George, Comox Valley, Central Kootenay, etc., use a single operational bylaw for multiple fire departments.

⁸ We recommend that Service Levels be established by policy, rather than set in the bylaw itself, to allow for easier revision.

- where the Department is operating at the Interior Operations Service Level under the Playbook, it needs to be given the power to undertake inspections of buildings and structures to conduct pre-incident planning;⁹
- the powers to operate at and control an emergency scene are specified;
- the powers to enforce bylaws and other requirements (e.g., the *Fire Services Act / Fire Safety Act*, the Fire Code, etc.), are properly described;
- the authority to operate extra-jurisdictionally is defined; and
- the administrative and reporting structures are clearly laid out, including:
 - fire chief appointment;
 - officer and member appointments;
 - reporting lines;
 - fire chief responsibilities and duties, including responsibility for meeting statutory and regulatory requirements, such as properly training members, operating a compliant occupational health and safety program and joint committee/worker representative structure, maintaining records, developing operational guidelines, etc.; and
 - for the TNRD, the responsibilities and authority of the Manager, Community Services and Emergency Services Supervisor, are specified.

For Municipal Departments, the responsibility for undertaking inspections of public and commercial buildings (and the power to conduct such inspections) needs to be specified. These responsibilities are being revised under the new *Fire Safety Act* (see discussion, below).

When the various operational bylaws are updated, we generally recommend that the bylaw specifically note that the services are being provided by volunteers or paid-on-call members, and, for any given incident, the response may be adversely affected by a low or slow turn-out. Each Department should specifically be authorized to limit the services provided at any given incident based on the available equipment, apparatus and personnel (and their level of training). Some jurisdictions have also taken to expressly stating that no warranty or assurance is provided as to the “certainty of timely response levels”.¹⁰

⁹ For Municipal Departments, this power can be integrated as part of the inspections regime; for RD Departments and the ID Department, which are not undertaking regular fire inspections, this power needs to be granted separately.

¹⁰ See: *Greater Vancouver Regional District Sasamat Volunteer Fire Department Administration and Regulation Bylaw No. 1204, 2014*, in particular section 1.5.

For the RD Departments, the establishment bylaws are required to conform to the requirements of the *Local Government Act* (B.C.) regarding the creation of local services.¹¹ A service area must be established; the services to be provided need to be set out; and the manner, method and maximum taxation amount must be specified. In connection with defining the services to be provided, we recommend that the description be sufficiently broad to contemplate emergency responses for matters other than fire protection, and that, as part of the service being provided, mutual or automatic aid with other fire departments be expressly included.

Society Departments

The Society Departments reflect a hybrid structure that we have not previously encountered. Historically, the use of private, volunteer societies to provide fire services was quite common in unincorporated portions of regional districts and, to a lesser extent, within some municipalities, throughout the province. Their emergence was quite pronounced throughout the 1970s, 1980s and, to a lesser degree, the 1990s. Over the past two or three decades, however, fire service delivery has evolved. Regional district governments have created local service areas to provide funding for these departments. In most cases, the regional district initially would establish and authorize the provision of fire protection services, and enter into service contracts with the local society to deliver them. In the past 10 to 15 years, however, as the regulatory requirements increased, concerns over liability grew, and the need for better training, equipment and records keeping became increasingly important, there has been a further shift, with regional districts increasingly taking direct responsibility for the delivery of fire and emergency services. This process has been accelerated in that past several years, in part due to the clarity provided by the Playbook in terms of the role, responsibility and accountability of regional districts in their capacity as the AHJ. As a related issue, regional districts have had to address the question of whether volunteer/paid-on-call members are considered “employees” for purposes of the *Local Government Act* and the WCA. In many cases, the society structure has been retained to maintain community engagement, and manage the social side of the volunteer service, which is critical to recruitment and retention of members.

In relation to the Society Departments, the structure in the TNRD is quite different. Under the various establishment bylaws creating local services areas which involve the relevant Society Departments, the TNRD has stipulated that the service being provided is limited to “providing a financial contribution” to the relevant fire department or its society.¹² The service establishment bylaw does not actually authorize the provision of fire or emergency response services, but only a financial contribution towards the entity providing those services within the defined service area. In one case (Tobiano), the original service establishment bylaw was revised to delete the language which authorized the provision of “fire protection” within the service area and replace it

¹¹ The SBID is authorized to provide fire protection services under an amendment to its Letters Patent.

¹² The language varies slightly from bylaw to bylaw: the phrase quoted is from *Electoral Areas “O” and “A” (Little Fort) Fire Protection Contribution Local Service Establishment Bylaw No. 1698, 1998* (as amended).

with the financial contribution provision.¹³ Although the Regional District has passed operational bylaws granting various powers and authorities to the RD Departments, the Society Departments are not covered by such a bylaw.

These service establishment bylaws are married to funding agreements (the “Funding Agreements”) covering the provision of the financial contribution by the TNRD.¹⁴ Under the Funding Agreements, the relevant Society is made solely responsible for the provision of fire protection services. The Societies are (in effect) constituted as the AHJ for purposes of the Playbook and are the employers of the firefighters and officers for purposes of the *Workers Compensation Act* and regulations. In the event that a Funding Agreement is terminated for any reason, the relevant Society is required to return the unused portion of the monies received.

This hybrid structure poses a number of fundamental governance challenges. The Society Departments are, notwithstanding their funding by the TNRD, operating as private fire departments. They have no particular operational powers, unless those powers are granted to them by contract – whether from their service area residents, from the TNRD or both. The Funding Agreements do not provide any operational powers and, given the narrow enabling language in the corresponding service establishment bylaws, it is not clear what powers the TNRD would be in a position to grant. To the best of our knowledge, none of the Society Departments has any service contracts in place with its area residents. As a result of the terms of the Funding Agreements, moreover, service must be provided to all of the property owners in the service area, without regard to whether a contract is in place or not (a term the TNRD had to put in place, as all residents within the fire protection area are, in effect, being taxed for the service). To put it another way, an individual Society would still be obligated under the Funding Agreement to provide services to a property, where the owner had refused to sign a service contract.

The Society Departments, therefore, are operating without any clear authority to deliver time-impacted, life-critical emergency services. This lack of clear operational authority poses a liability risk.

The risk issue is further exacerbated, since each member of a Society Department is potentially liable, personally, if a mistake is made. The Funding Agreements are clear that the TNRD has no responsibility for, or connection with, any firefighters or officers delivering the services.¹⁵

¹³ *Electoral Area "J" (Tobiano) Fire Protection Financial Contribution Service Area Establishment Amending Bylaw No. 2312, 2010* amended the original service establishment bylaw and removed the language which authorized the actual provision of fire protection services.

¹⁴ Our understanding is that the Funding Agreement with Little Fort has not been yet been renewed. While the TNRD is not precluded from funding that Department without an agreement, until the agreement is executed, the various obligations imposed, and protections provided by, that agreement, will not be in effect.

¹⁵ This language is standard across the most recent iterations of the Funding Agreements. See, for example, s. 7.1(b) of the Funding Agreement with the McLure Firefighters and Recreation Association.

“neither the Society, nor any member, officer, employee, servant or agent of the Society, shall be deemed to be an officer, employee, servant, agent or representative of the TNRD for any purpose whatsoever; [...]”

On that basis, it is unlikely that the Society Department members would be entitled to avail themselves of the protections against personal liability set out in the *Local Government Act* (B.C.).¹⁶

The Society Departments, therefore, are operating without clear powers or authority, and no statutory limitation on personal liability for their members. The risks are compounded by the fact that, of the Society Departments reviewed, only one has an operational and capital budget which exceeds \$100,000. The tax bases for most of the Society Departments are quite limited, which makes increasing their budgets challenging. Even so, to establish, operate and maintain a properly compliant fire department with the budgets available is exceptionally challenging. For most of the Society Departments reviewed, moreover, significant investments will be required in improved training, equipment testing and maintenance, and related records keeping.

During the facilitated session, a number of the Society Departments indicated that they would prefer that the TNRD take over responsibility for emergency service delivery. While specifics were not discussed during the session, it is likely that most Societies would be prepared to continue to operate to fulfil community engagement, volunteer support and social functions.

If the TNRD is prepared to take over responsibility for the Societies requesting this transition, it would be appropriate for the TNRD to conduct a detailed sustainability analysis for each, which would need to evaluate such matters such as budget levels, status of equipment and facilities (which are mostly owned already by the TNRD), staffing levels and turnover rates, and Fire Underwriters' ratings. From that assessment, a transition approach would need to be developed including, for each relevant Society Department, revising the service area bylaws and having the affected Society Department members join the renewed Department.

The TNRD hybrid service structure should be reviewed and the gaps in authority closed. It would be possible, as a minimum, to move to a more standard service structure:

- update the establishment bylaws to authorize the provision of fire and emergency response services in the relevant service areas;
- expressly permit the TNRD to contract with third parties (i.e., the Societies) to provide these services;
- develop corresponding service contracts;

¹⁶ Those protections are set out in section 738 of the *Local Government Act*. It is likely that, to be applicable, the Regional District would have to recognize Society Department members as volunteers for purposes of section 738(1)(o). Even then, the applicability of this section would be in doubt for any Society Department which uses a paid-on-call system, since paid-on-call members are, technically, not volunteers.

- recognize Society Department members (if possible) as volunteers for the purposes of section 738(1)(o) of the *Local Government Act*,¹⁷ and
- when updating the operational bylaws of the current RD Departments, include the Society Departments in the grants of powers and operational authority.

It should be noted, however, that we do not actually recommend using this traditional structure. Where we encounter it, we typically recommend that the system be changed. The risks and potential liabilities involved in the delivery of fire and emergency response services are simply too great to impose on volunteer societies. Volunteer societies do have a critical and continuing role to play in ensuring community engagement, assisting with volunteer recruitment and managing the social functions of a volunteer department, all of which are essential to the continuity and sustainability of these organizations.

As such, we would strongly recommend that the TNRD move away from a model where volunteer societies have primary responsibility for delivery of fire and emergency response services. Responsibility for the actual delivery of these emergency services should rest with local government.

As part of this revised system, the costs of providing TNRD oversight can properly be spread out across all service areas: it may be preferable to aggregate the service areas and apply the costs of such administrative oversight and assistance *pro rata* to each area's tax base.

In relation to the transition of responsibility for fire protection and emergency response services from the Societies, the TNRD will need to undertake a substantive review of the issues involved in transferring over these services to direct Regional District control. The Societies should be encouraged to continue to function in a support role, even though they are no longer directly responsible for delivery of fire protection or emergency services. Some of the issues that require consideration are set out in Appendix 1.

New Fire Safety Act

The new *Fire Safety Act* (B.C.) received third reading in May 2016, but it has not yet come into force. The Office of the Fire Commissioner is in the process of drafting the regulations which are needed before the statute can come into effect. It is unclear when these regulations will be completed.

When the new *Fire Safety Act* comes into effect, it will replace the existing *Fire Services Act*. At a high level, this new statute impacts the following matters:

- fire inspections of public buildings within those fire protection areas which have building inspection programs, or within municipalities;
- the obligation to have fire inspectors and fire investigators available for the entire area under the jurisdiction of the local government. For the TNRD, this means that it will

¹⁷ It is not entirely clear that Society members, who are volunteers (or employees) of a separate legal entity, can be afforded the protection contemplated by that section of the *Local Government Act*

require a fire inspector and investigator for all areas of the Regional District outside of a municipality. It is not yet clear whether those portions of the TNRD which have fire services provided through an Improvement District will also have to be provided with fire inspectors and fire investigators. In addition, the TNRD should clarify its funding and service agreements with the various Societies to clearly allocate responsibility for such tasks;¹⁸

- fire investigations; and
- the powers exercised by fire chiefs and local governments.

The new *Fire Safety Act* requirements will need to be incorporated into any update of each AHJ's operational bylaw.

Fire Inspections

Under the new *Fire Safety Act*, the existing obligation to operate a regular system of inspections of public buildings¹⁹ is replaced by the obligation to establish a risk-based compliance monitoring system for public buildings which encompasses:

- fire safety inspections; and
- fire safety assessments.²⁰

The *Fire Safety Act* did not broaden the mandatory inspection obligation: as with the *Fire Services Act*, regular fire inspections are only mandatory for municipalities. At present, only the Ashcroft, Clearwater and Lytton Volunteer Fire Departments will need to adapt to this new inspection regime.

The existing language in the statute,²¹ however, would require that the Regional District have available one or more inspectors to cover all unincorporated areas under its jurisdiction, even if a fire inspection regime has not been implemented.²² The rationale for this requirement

¹⁸ The appointment of fire inspectors and fire investigators is the responsibility of the "local authority". The term local authority is defined to mean a regional district, a municipality or "any authority prescribed by regulation." An Improvement District which operates a fire service would therefore have to be "prescribed by regulation" before this obligation is imposed upon it – meaning that the responsibility, to the extent the Improvement District's service area is outside of a municipality's boundaries, and it is not so prescribed, would fall to the Regional District. See: *Fire Safety Act*, s. 1 (definitions), s. 8(1) (fire inspector appointment) and s. 23(1) (fire investigator appointment).

¹⁹ *Fire Services Act* (B.C.), ss. 26 and 36.

²⁰ *Fire Safety Act*, s. 20. The term "public buildings" is defined in s. 1.

²¹ There has been some pressure to amend this language: Letter, A. Richmond, UBCM President to Ministers Yamamoto and Fassbender, 7 June 2016. The Province has indicated to the UBCM that it will amend the statute, though the nature and extent of those amendments are, at this time, unclear. These sections on fire inspections and fire investigations are, therefore, based on the current language of the *Fire Safety Act*.

²² See sections 8(1) and 9 (a) – (c) of the *Fire Safety Act* regarding the appointment and potential responsibilities of a fire inspector. See the discussion and footnote 18, above, regarding the uncertainty about areas which have a fire service provided by an Improvement District.

appears to be that the position of Local Assistant to the Fire Commissioner (“LAFC”), which included a power to conduct inspections on complaint, will no longer exist. As such the TNRD will need to add some kind of fire inspection function. This can be managed easily within the existing fire service areas through the designation of the Fire Chief as inspector, or through clear language in the service/funding agreements with the Societies. For coverage outside of the existing fire service areas, this obligation can be addressed either by expanding the authority of the Fire Chiefs to conduct inspections outside of their fire service areas or by adding this responsibility to an existing staff position (e.g., to the Emergency Services Supervisor role). If this obligation remains, and the statute is not revised, the TNRD may wish to create a service area covering those portions of the Electoral Areas which are not within either municipal boundaries or existing fire service areas, for the purpose of funding both fire inspections and fire investigations (on fire investigations, see below). The TNRD should maintain a watching brief on developments with the new *Fire Safety Act*.

Following a transition period, “fire inspectors” will need to meet the training and proficiency requirements specified by regulation.²³ Those regulations have not yet been promulgated.

For the Municipalities, the new statute means that their Departments will need to conduct risk assessments of public buildings within their respective local service areas.²⁴ Those assessments will need to comply with the (yet to be issued) regulations under the *Fire Safety Act*. The inspection regime will then be developed based on the risk assessments that are conducted. If a Municipal Department is providing service under contract to an unincorporated portion of the TNRD, the inspection regime will only apply if it forms part of the service being delivered to the TNRD. The TNRD and the relevant Municipality, however, should clarify whether the Municipal Department is going to be providing inspections on complaint and conducting fire investigations in areas serviced under contract.

The concept of a “fire safety assessment” is new. It amounts to the “self-inspection” of a property by the owner. Under the existing *Fire Services Act*, there has been some uncertainty about whether self-inspection systems complied with the statutory requirements. That issue is now laid to rest. However, it will be up to each Municipality to determine which public buildings are to be permitted or required to conduct self-assessments, presumably as part of the overall risk analysis that must be conducted. The new self-assessment system will have to follow a form which is to be prescribed by the Fire Commissioner under the new statute.

The TNRD has a separate fire inspection bylaw, *Fire Prevention Inspection Bylaw No. 1994, 2004* (“Bylaw 1994”), which also may be impacted by the new *Fire Safety Act*. Bylaw 1994 is a permissive bylaw which applies to certain specified service areas. The bylaw prohibits owners or occupiers of property from accumulating “material and/or debris that may cause a fire, increase the danger of a fire or increase the danger to persons or property from a fire.”²⁵ It

²³ *Fire safety Act*, s. 8(2). The transition period is provided for in s. 53.

²⁴ If the Municipal Department is providing service under contract to an unincorporated portion of the TNRD, the inspection regime will only apply if it forms part of the service being delivered to the TNRD.

²⁵ Bylaw 1994, s. 3.1.

permits orders to be issued requiring such accumulations to be cleared or disposed.²⁶ It also authorizes the relevant fire chief to enter private property to inspect for conditions “that may cause a fire, increase the danger of a fire or increase the danger to persons or property from a fire.” This authority, however, may only be exercised upon written authority by the CAO of the TNRD.²⁷

Much of the language in Bylaw 1994 is drawn from the phraseology used in the the existing Fire Services Act. The TNRD should review this bylaw against the new statute and update it accordingly. It may also wish to consider whether, depending on how its overall structure with respect to the Society Departments is revised, to expand the applicability of the section to other fire service areas.

Fire Investigations

The requirements relating to fire investigations are set out in Part 7 of the *Fire Safety Act* (ss. 22 – 27). As with fire inspectors, a “local authority” (which includes a regional district):²⁸

must designate in writing persons or a class of persons as fire investigators to conduct fire investigations.

Under section 25, each local authority is required to commence a fire investigation within five days of learning of a fire that has destroyed or damaged property or resulted in death or injury. As with fire inspectors, following a transition period, fire investigators must meet the training requirements which are to be specified by regulation.²⁹ Those regulations have not yet been promulgated.

As with fire inspectors, the designation of fire investigators within existing fire service areas will not be problematic. For the Municipalities, this obligation will devolve to their Departments, and for the TNRD, in existing service areas, the Fire Chiefs can be made responsible for conducting such investigations (whether by bylaw or, in the case of the Society Departments, by contract), though there will be some training requirements that must be met. For service areas receiving fire protection from a neighbouring municipal government, it may be necessary to review the terms of the service contract to ensure this obligation will be met.

However, as there will now be no LAFCs, who previously were charged with conducting fire investigations,³⁰ the existing language in the statute would require the TNRD to ensure that a fire investigation can be conducted in the unincorporated portions of the Regional District in accordance with the new statute, even if the fire occurs outside of an existing TNRD fire service

²⁶ Bylaw 1994, s. 3.3. The bylaw is silent on who is authorized to give this notice.

²⁷ Bylaw 1994, ss. 4 and 2.2, respectively.

²⁸ *Fire Safety Act*, s. 23(1).

²⁹ *Fire Safety Act* s. 23(2); the transition period is provided for in s. 53.

³⁰ Under the *Fire Services Act*, the RCMP would act as the LAFC in unincorporated areas where none had been appointed.

area.³¹ For such areas, the TNRD may wish to delegate specific investigations to one of the local area Fire Chiefs, or add it to the responsibilities of the Emergency Services Supervisor. It is likely, however, that it will be necessary to create a service area to fund this service, assuming that no changes are made to the statute. Again, the TNRD will need to maintain a watching brief on this statute and any amendments that may be made.

As noted above, there is some uncertainty as to whether these obligations will fall on Spences Bridge, which is an improvement district. If they do, then the SBID will need to develop such capacity; if not, then the TNRD will be responsible for conducting investigations in the SBID's service area. If that situation comes to pass, then the TNRD should likely contract for the service from the SBID.

Powers and Authority

Under the *Fire Services Act*, powers and authority were granted principally through the mechanism of appointing fire chiefs as LAFCS.³² For the Municipal Departments, the fire chief automatically became the local assistant; for fire departments operating in the unincorporated portions of the TNRD, application was required from the relevant local government.³³ The role of local assistant, however, is being abolished.³⁴ In place of the powers granted to local assistants, the new statute:

- grants a fire chief (or designate) the power to order a tactical evacuation where he or she “believes that there is an immediate threat to life due to a fire or explosion”,³⁵ and
- deems “fire chiefs,” fire investigators and fire inspectors to be peace officers for the purposes of the new act.

Certain other powers are granted to both fire inspectors and fire investigators (e.g. the power to enter onto property, the power to issue orders, etc.), and local authorities are granted the power to order a “preventive evacuation” where the local authority “believes that conditions exist on or in the premises that fire on or in the premises would endanger life.”³⁶

It should be noted that, as drafted, these powers will be conferred on *all* fire chiefs operating in the region, whether or not their departments are operating under direct local government control or are “private” fire departments operated by one of the Societies. Unlike the LAFCS designation, which, by practice, required local government nomination, these powers automatically will be

³¹ Again, there is uncertainty regarding areas which have fire protection provided by Improvement Districts. See discussion, above.

³² *Fire Services Act*, s. 6.

³³ Spences Bridge, as an improvement district, would be recognized by the Office of the Fire Commissioner as the relevant local authority for its service area.

³⁴ Under s. 55 of the *Fire Safety Act*, local assistants are required to return their badges within three months of the new statute coming into force.

³⁵ *Fire Safety Act*, s. 13.

³⁶ On fire inspectors' powers, see ss. 10 and 11; on fire investigators' powers, see s. 26. The power of a “local authority” to order a preventive evacuation is set out in s. 14 of the *Fire Safety Act*.

conferred on each “fire chief” of a fire department. What constitutes a “fire department” is not defined – as such, it must be assumed that such powers will now be granted to the fire chiefs in each of the Society Departments, even if they were not previously LAFCS.

The new obligations and requirements being created by, and powers granted under, the *Fire Safety Act*, will require bylaw updates for all Local Government Departments by their respective AHJs. For the Municipal Departments, it will be necessary to update the fire inspection system to meet the new requirements laid out in the *Fire Safety Act*. For the TNRD, unless the statute is amended before coming into force, it may also mean that the Regional District has to implement fire inspection and fire investigation services for all unincorporated areas of the TNRD. The impact on the SBID remains to be seen, as it is not clear if improvement districts will be designated as a local authority for the purposes of the new act.

Recommendation: **Applicable to all Local Government Departments** (including the Municipal Departments, RD Departments and the SBVFD) - Review and update each establishment and operational bylaw (as applicable) to:

- address issues arising from statutory and regulatory changes, including:
 - the Playbook requirements (including training, Service Level policy, and records keeping obligations); and
 - the new *Fire Safety Act*, including: fire inspection regimes (for Municipal Departments); fire inspector and fire investigator appointments; new grants of powers to fire chiefs and local authorities; and related reporting obligations to the Office of the Fire Commissioner;
- address the issues identified in the individual Department reports;
- ensure that the bylaws provide appropriate powers and authorities to operate as outlined in this section of the Report and discussed in the individual Department reports.

Recommendation: Each “local authority” (which may or may not include the SBID and the TNRD), will need to ensure that it can provide trained inspectors and trained investigators as required by the new Fire Safety Act. There is a one-year transition period after the new act comes into force before the training and qualifications, which are to be prescribed by regulation, must be met. The SBID and TNRD will need to maintain a watching brief on the *Fire Safety Act* to see how the fire inspection and fire investigation obligation is potentially revised and what obligations they may have under the new statute.

Recommendation: For the TNRD, create a single, operational powers bylaw applicable to the Departments under its authority. The Departments that would be covered by such bylaw would be subject to the recommendations below. When crafting the bylaw, the included Departments could be listed on a

schedule, which then could be updated as required. The TNRD should also review its fire inspection bylaw, Bylaw 1994, against the new *Fire Safety Act* and consider expanding its applicability to other fire service areas under its authority.

Recommendation: In relation to the TNRD and the Society Departments, we recommend that the primary responsibility for delivery of fire and emergency response services be transferred to the TNRD, and the delivery of such services in the “financial contribution service areas” be properly authorized. This will require:

- revising the establishment bylaws to authorize the TNRD to provide such fire and emergency response services;
- making the common operational bylaw (see recommendation above) applicable to these Departments;
- updating and revising the Funding Agreements so that they properly reflect the new structure. An agreement may still be required with the individual Societies, if they are to receive funding for providing ongoing support services, even if they are not primarily responsible for emergency response services; and
- undertake the additional review and consultation contained in the next recommendation.

Recommendation: In relation to the TNRD taking on responsibility for fire protection and emergency service delivery from the Society Fire Departments:

- the TNRD will need to conduct a more detailed review of the issues involved in such a transfer of responsibilities, including: budget levels, status of equipment and facilities (which are mostly owned already by the TNRD), staffing levels and turnover rates, and Fire Underwriters’ ratings; and
- a transition approach will need to be developed, including, for each relevant Society Department, revising the service area bylaws and having the affected Society Department members join the renewed Department. In light of interest expressed that several of the Society Departments would prefer to transfer responsibility for fire and emergency response services to the TNRD, a discussion of a potential transition framework within which to consider such requests is included in Appendix 1.

Mutual Aid Agreements

Mutual aid agreements are essential tools that enable fire departments to provide aid to one another, when circumstances warrant. They permit departments to share resources and specialty services (e.g., specialty rescue or hazardous materials responses), and enable them to obtain critical support for major incidents or other situations where a department's resources are overwhelmed by events. Mutual aid agreements require a specific request for assistance from the requesting department, before another department responds to the incident. Operationally, it usually means that a department arrives on scene, determines it will need assistance, and then makes a request through its dispatch provider for a mutual aid turn out. This can result in a significant delay before assistance arrives.

Automatic aid agreements are a variant under which the participating departments agree that they will be automatically dispatched to assist neighbouring departments. Most such agreements limit the call-outs to certain classes of calls, such as structure fires. Some automatic aid agreements further refine the approach by specifying particular areas covered (e.g., areas along each department's border), the nature of assistance provided (e.g., ladder trucks or tenders), the time of day (e.g., call-outs during work days when responses may be weak) and similar factors. Automatic aid agreements require close collaboration between the participating departments and with their dispatch provider. The principal benefit of automatic aid agreements is that they minimize the delay before additional resources begin responding from an assisting department.

We were provided with copies of mutual aid agreements covering the following Departments:

- Clearwater, Blackpool and Vavenby (2015);
- South Green Lake and 70 Mile House Volunteer Fire Department (2014); and
- South Green Lake and Watch Lake – North Green Lake Volunteer Fire Department (2013).

Individual comments on these agreements were provided in the relevant Department reports and are not repeated here, except as high-level concepts in connection with the possibility of expanding mutual aid structures across the Regional District.

The Local Governments, in consultation with the Societies, may wish to review the overall mutual aid agreements in place, and work to create a comprehensive mutual aid structure covering all (or most) fire services operating in the Regional District. In a number of cases, individual Departments reported receiving or providing mutual aid, even when formal agreements were not in place. As the recent fire season has amply demonstrated, it is important for the area Departments to be able to work together, quickly, effectively and collaboratively. Some regional districts (such as the CSRD), have developed a comprehensive mutual aid structure among all regional district departments, with standalone agreements with area municipalities. The CSRD manages the exercise of mutual aid through operational guidelines and policies, to ensure that call-outs are limited to departments which are reasonably proximate to each other. That being said, if there is a major incident, the CSRD Fire Services

Coordinator, in consultation with the affected departments, can quickly arrange for supporting responses from more distant departments. Conceptually, this approach is sound; it can be made even more effective if the municipal departments are also invited to participate. As always with mutual aid, however, the right to refuse an aid request has to be in the sole discretion of the department whose assistance is being sought.

As a general comment when contemplating such arrangements, the following matters need to be considered (whether in connection with updating existing agreements or developing a more comprehensive mutual aid structure):

Powers & Authority

Every mutual aid agreement needs to include an express provision dealing with the powers and authority of an assisting fire department to operate in the neighbouring jurisdiction under a mutual aid request. Circumstances may arise where the assisting fire department is either first on scene, or has been activated because the requesting fire department is otherwise fully engaged on another incident. A clear statement of the assisting fire department's authority to control a scene, and undertake the full range of emergency response activities is needed. There are two basic approaches that may be taken: either the assisting fire department can be granted the same power and authority as is enjoyed by the requesting fire department; or the assisting fire department can be granted the same power and authority to operate in the requesting fire department's jurisdiction, as it enjoys in its home jurisdiction. If the former option is selected, in addition to reviewing and updating operational guidelines, the area Fire Chiefs (see next comment below) should be tasked with identifying any major differences in the operational powers that can be employed by the various participating departments, and working to harmonize them.

For the Society Departments, the question of their power and authority to deliver emergency response services potentially complicates this situation. Again, as noted above, it is important that the TNRD address this fundamental question as a matter of some priority.

With the advent of "Service Levels" under the Playbook, the Mutual Aid Agreement should expressly authorize each assisting fire department to provide its authorized level of service in the other party's jurisdiction, notwithstanding that such Service Level might be different than that provided by the department in that other jurisdiction.

Mutual Aid Operating Committee

Every mutual aid agreement should require that the participating departments work collaboratively to define a broad range of operational, equipment and training/proficiency issues, including:

- common operating guidelines;
- common personal accountability systems (including a common, on-scene system for readily identifying the qualifications of each responding firefighter, whether from an assisting fire department or the requesting fire department);

- agreed incident command structures (see next comment below);
- equipment and communications interoperability;
- post-incident reviews;
- joint training; and
- regular updating of the agreement itself and any accompanying materials (e.g. contact names, etc.).

The broader and more comprehensive the mutual aid arrangements, the more important such regular meetings of the participating departments become. A mutual aid operating committee, which is responsible for managing and reporting on these types of issues, would be a useful structure to create.

Incident Command

The current versions of the mutual aid agreements which we were provided for review all stipulate that a requesting fire department will automatically have incident command. This approach may not always be appropriate. Among other things, any mutual aid agreement should contemplate the following situations:

- (a) circumstances where the assisting fire department is first on scene or where the assisting fire department is the only department on scene (e.g., because the requesting fire department is fully involved on another incident). In both cases, the assisting fire department will be establishing and operating incident command; and
- (b) circumstances where the requesting fire department does not have sufficiently qualified personnel on scene to manage the incident, or to oversee the response that is appropriate for the event (e.g., is not qualified to manage an interior attack). The same situation can arise if the requesting fire department is operating at a lower Service Level under the Playbook.

In both cases, area Fire Chiefs (through whatever collaborative processes are established) should be directed to develop an agreed approach to such circumstances and to managing incident command through standardized operational guidelines.

Training and Accountability Systems

Some of the existing mutual aid agreements dealt with the issue of emergency scene management of personnel, requiring the participating departments to “adhere to recognized principles of accountability for responder personnel safety.” We believe that the issues of training and personnel accountability systems could and should be addressed in greater detail.

The critical issue, and this ties to the accountability system in use, is to ensure that personnel at an incident are only tasked with assignments that they are qualified and trained to undertake. This means that the proficiency level of each person at an incident must be readily and reliably

ascertainable by the incident commander – particularly where the incident commander is potentially directing another department’s members. A number of jurisdictions (e.g., Kootenay Boundary, the South Cariboo fire departments, etc.) use a colour coding system for each member, where each different colour indicates the individual’s level of proficiency, training and qualification. If such a system is not in use, it should be adopted and applied consistently across all participating departments. If it is in use, we recommend that the area Fire Chiefs, through whatever collaborative processes are established, be tasked with periodically reviewing how each participating department is determining the “colour coding” and proficiency levels of its members. We have worked with some jurisdictions where such systems were in use, but the participating departments admitted that the same colour did not always mean that members from different departments had the same level of training and proficiency.

We also would recommend that the all mutual aid agreements specify the standards of training applicable before an assisting fire department may include a member on a mutual aid call (e.g., at a minimum, qualified to the Exterior Operations Level under the Playbook). Exceptions can be made where a particular member of a participating Department operates in a defined or restricted capacity (e.g., pump operator only), provided that such individual is not then tasked with a duty or responsibility for which he or she is not qualified.

Mutual aid agreements also should encourage joint training between typical mutual aid partners (i.e., between participating departments that regularly provide each other with mutual aid).

Limiting or Managing Call Outs

One of the issues which can impact a broad or comprehensive mutual aid structure is the management or limitation of the number of call-outs that arise. This issue is particularly pertinent where there is a significant disparity in size or composition of the area departments: it may give rise to circumstances where the larger department is always being called out for support, putting a strain on its resources.

Mutual aid structures can limit call-outs to defined times (e.g., daytime on a business day) or call types (e.g., confirmed structure fires only). In the Alberni Clayoquot Regional District (the “ACRD”), there is an aid agreement in place between a career department in the City of Port Alberni and its neighbouring volunteer departments. The ACRD agreement, which is structured to be triggered automatically, is limited to certain defined areas and/or call-types, thereby limiting call-outs. Other agreements we have seen cover off potential inequities by including a schedule for payments, which typically is balanced out annually. In some cases, the payments are limited to particular call out types (e.g., specialty responses, such as hazmat).

As always, each participating Department must have an unfettered discretion to refuse a call without liability.

Waivers and Indemnities

The issue of liability is one which needs careful consideration and discussion with external counsel (and, potentially, insurance providers). It is common to see an assisting department relieved of liability and indemnified against claims, arising from its assistance. This waiver and

indemnity is typically limited to exclude gross negligence or wilful or malicious misconduct (but not “mere” negligence). For those AHJs which are insured by the MIA, the general prohibition against providing an indemnity for another party’s negligence, does not apply to a mutual aid agreement for firefighting.³⁷ The situation with private insurers would need to be expressly confirmed.

Waivers and indemnities are complex. We have, for the existing mutual aid agreements, recommended that the existing provisions be thoroughly reviewed with external counsel. If a more comprehensive structure is developed, this issue will need to be examined closely by each party.

Dispatch Provider

All mutual aid agreements should require that the dispatch provider (or providers) for the participating departments be kept fully informed of the terms of the agreement and any related operational guidelines, including call-out protocols for the “next nearest” department when a mutual aid request is initiated. The dispatch provider should be kept apprised of all changes to common operational guidelines and invited to any debriefings for mutual aid incidents. Where a more comprehensive structure is being developed, the concept of “closest responding department” would need to be included in dispatch protocols. Processes and approaches for addressing situations where the usual partner has declined a request for assistance, would also need to be developed.

Where call-outs are to be limited to particular call types or times (or both), appropriate protocols need to be developed with the dispatch provider.

Recommendation: The Local Governments, in cooperation with the Societies, should consider developing a more comprehensive mutual aid structure across the Regional District, to ensure that resources can be activated when required to address major incidents.

Recommendation: Each participating Department’s dispatch provider should be provided with a copy of any existing (or new) mutual aid agreements and kept apprised of the protocols relating to assistance call outs.

Occupational Health & Safety

The statutory basis for occupational health and safety programs is found in the WCA and the OH&S Regulations, as well as in other regulations and the policies of WorkSafe BC. The requirements are complex and prescriptive. It has been our experience that many volunteer departments, although safety-conscious, struggle to manage the regulatory burden created by the WCA and the OH&S Regulations. As with other matters covered in this report, nothing in this section should be construed as legal advice. Each AHJ should review its OH&S obligations through its usual internal and/or external processes.

³⁷ See “Exclusions” in s. 1(g) of the 2017 Liability Protection Agreement.

Under the WCA, each of the AHJs – the Municipalities, the TNRD, the Societies and the SBID – is the employer in relation to the Department or Departments for which it is directly responsible. For the sake of clarity, the TNRD is responsible for the RD Departments, while each individual Society is responsible for its respective Society Department.

For the TNRD Departments and Society Departments, this is an area where centralized assistance from, and (in relation to the RD Departments) oversight by, the TNRD, is critical. The TNRD should be prepared to take the lead with its RD Departments and assist both the RD Departments and Society Departments by developing common processes and providing administrative support to the fire services which it is funding.

In relation to the Municipal Departments, in each case some increased degree of oversight and assistance from the relevant Municipality is in order: the extent of assistance required varies, as is noted below.

It is the responsibility of the relevant AHJ to ensure that the various obligations under the WCA and OH&S Regulations are being met by the Department or Departments for which it is responsible. We have recommended above that, as operational bylaws are updated, they clearly require that each Department take the steps required to meet its WCA and related OH&S obligations (as the actual operation of any such program is obviously dependent on the individual Department officers and members for appropriate implementation).

It should be noted that the formal obligations for each AHJ may vary depending on the total number of employees for which it is responsible. In relation to formal OH&S programs, the following chart appears in WorkSafe BC materials:³⁸

Number of workers	Program required for workplace based on hazard rating		
	Low	Medium	High
Fewer than 20	Less formal*	Less formal*	Less formal*
20 or more but fewer than 50	Less formal*	Formal	Formal
50 or more	Formal	Formal	Formal

Similarly, in relation to the operation of a formal joint committee or worker representative system, these obligations apply as follows:

Joint Committee: in each workplace where 20 or more workers of the employer are regularly employed; and

³⁸ WorkSafe BC, *How to Implement a Formal Occupational Health and Safety Program* (2017 edition), at p. 7. Available at: <https://www.worksafebc.com/en/resources/health-safety/books-guides/how-to-implement-a-formal-occupational-health-and-safety-program?lang=en>.

Worker Representative: in each workplace where there are more than 9 but fewer than 20 workers of the employer regularly employed.

As discussed further below, there is an obligation to operate a separate joint committee/worker representative system for the fire department of an AHJ that is required to have such a structure in place. It should be noted, however, that even if a “formal” program is not required, it does not relieve the AHJ of its responsibilities for OH&S matters.

The eleven Departments differ considerably in the level at which they meet their respective occupational health and safety responsibilities. The following is a brief overview summary from the individual Department reports:

Municipal Departments

- Ashcroft: The Department’s OGS reference a separate OH&S program, but the discussions with the Fire Chief indicated that the program was not actively being applied. The actual form of the OH&S program was not included in the materials provided (and is not included in the OGS themselves). The Department has more than 19 members, and should be operating a separate joint committee, but is not currently doing so.
- Clearwater: Clearwater has actively implemented an OH&S program, and operates a joint committee (though we did not review how this committee has been constituted). The District of Clearwater should periodically review this program in discussion with the Department. The new obligations regarding joint committees (discussed below) arising from the amendment of the OH&S Regulation, need to be incorporated into the Department’s OH&S system. In general, though, the Department appears to be doing a good job at meeting the prescriptive requirements of the WCA and OH&S Regulations.
- Lytton: The Department has a separate OH&S program referenced in its OGS and conducts regular “tail gate” safety meetings with its members. With more than nine members but less than 20, the Department should be operating with an officially designated worker representative in accordance with the WCA.

RD Departments

The TNRD’s generic OGS reference an OH&S program. However, in the version of the OGS provided, no actual program was set out.³⁹ We assume, therefore, that the intention was to incorporate by reference the TNRD’s own OH&S program into each RD Department, which, by Board policy, is stated to apply “to all employees and contractors of the TNRD.”⁴⁰ It is not clear from our Department reviews, however, that this program is being actively applied or used. As noted above, this is not to suggest that the Departments are not safety conscious – rather, that the prescriptive formalities are not being followed. However, this is an area where the TRND

³⁹ OG 1.01.01 states that “The Occupational Health and Safety Policy contained in Part 1 of the Occupational Health and Safety Program is adopted and forms part of this Operational Guideline.” The program itself, however, was not included in the documentation provided.

⁴⁰ TNRD Board Policy, Policy No. 7.1.1.

can significantly assist its Departments, relieving them of a major administrative burden and improving its own management of risk and potential liability.

- Blackpool: The Department conducts a formal OH&S review at least twice a year and provides regular “tail gate” safety meetings to its members. No minutes are kept of the latter. The Department has between 10 to 19 members and should be operating with an officially designated worker representative.
- Pritchard: Pritchard undertakes a monthly safety meeting with its membership, but is not keeping minutes. As it has 20 members, it should be operating a formal joint committee, but has not appointed one. It is unclear the extent to which the formal OH&S program is being applied.
- Vavenby: Similar to Pritchard, the Department conducts a monthly meeting during which safety issues are reviewed, though no minutes appear to be taken. Vavenby has fewer than 20 members and should be operating with a worker representative.

Society Departments

For each of the Society Departments, the relevant Society is the employer for purposes of the WCA and OH&S Regulation. It is responsible for overseeing and ensuring its Department’s adherence to the statutory and regulatory requirements.

- Little Fort: The Department currently has some 11 members. While it does not require a “formal” OH&S program, it does need to operate a worker representative system.
- McLure: There does not appear to be a formal OH&S program; one may not expressly be required (i.e., a “less formal” OH&S program can be used). The Department conducts “tail gate” safety meetings with members, but does not appear to keep minutes. The Department has 22 members and should be operating a formal joint committee.
- South Green Lake: The Department has an OH&S program in place and is operating a health and safety committee as part of its program – it is doing well in this area. The Department and Society should review and, if necessary, update the OH&S program (which is silent on the role of the committee). They also should ensure that the operation, responsibilities and composition of that committee meets the prescriptive requirements of the WCA and OH&S Regulation.
- Tobiano: Tobiano has neither a formal OH&S program nor an appointed worker representative. As it currently has only seven members, there may not be an obligation to have formal programs in place (much would depend on how many other employees there are in the Society). Nevertheless, as the Tobiano Department seeks to grow, it should develop and implement appropriate, formal OH&S structures. These processes help to mitigate risk and liability for the Association, the officers and the members.

Improvement District Department

- Spences Bridge: The staffing levels of the SBVFD have been in flux of late. Until recently, though, the Department had more than 20 members. It is not clear the total number of employees for whom the SBID is responsible. At its present size, the Department requires a worker representative; the SBID also likely requires a formal OH&S program. At present, neither is in place.

As noted, each of the various AHJs is the employer for purposes of occupational health and safety matters. The relevant employer's occupational health and safety program is supposed to apply to its fire departments – though for entities such as the Societies and the SBID, the fire department constitutes all or a vast majority of its operational responsibilities (and the OH&S program would, therefore, mostly be driven by need to operate the relevant Department). We have not reviewed individual AHJ OH&S programs, or the individual requirements for maintaining such programs. There may be circumstances – such as with Tobiano – where the total number of employees is currently below the minimum thresholds for operating a formal OH&S program and worker representative structure. Given that the goal for each Department is to maintain an operational force of at least 15 firefighters and a fire chief (to meet Fire Underwriters requirements), even if these provisions do not technically apply, each AHJ and Department should establish a compliant program. More importantly, the general obligations of the WCA and OH&S Regulation apply, regardless of the number of employees. The operation of a compliant OH&S program and joint committee/worker representative system is an important aspect of mitigating the risk of, and liability arising from, a serious workplace accident.

The following section sets out the framework for ensuring that there is in place an appropriate OH&S program and related joint committee/worker representative structure. It is worth observing that neither the WCA nor the OH&S Regulations lays out a straight forward discussion of either the formal requirements or content of an OH&S program for the fire services (or any occupation, for that matter). The statutory and regulatory structure is complex and subject to change. In general, fire departments also require a separate joint committee or worker representative system from that otherwise operated by their employers,⁴¹ and need to apply a WHMIS⁴² program.

Formal Requirements

The following section sets out a general overview of the requirements for an OH&S program.

The starting point for any consideration of OH&S is section 115 of part 3 of the WCA, which makes employers responsible, among other things, for:

- ensuring the “health and safety of all workers working for that employer”,

⁴¹ The language in section 3.1(1.1) of Part 3 of the Regulations notes that the employer's OH&S program must cover the “whole of the employer's operations”. The need for a separate joint committee (or worker representative) is found in s. 31.23 of Part 31 of the Regulations.

⁴² Workplace Hazardous Materials Information System.

- complying with the WCA and related regulations and orders, and
- establishing OH&S policies and programs in accordance with the WCA regulations.

Section 3.3(1) of Part 3 of the OH&S Regulations requires an employer to initiate and maintain an OH&S program when it has a workforce of 20 or more workers and a workplace that is determined to create a “moderate or high risk of injury,” or by every employer which has 50 or more employees. The “moderate or high risk of injury” should be assumed to apply to fire department operations. The OH&S program must apply to “the whole of the employer’s operations”.⁴³ The program must be designed to prevent injuries and occupational diseases, and is required to include:⁴⁴

- a statement of the employer's aims and the responsibilities of the employer, supervisors and workers;
- provision for the regular inspection of premises, equipment, work methods and work practices, at appropriate intervals, to ensure that prompt action is undertaken to correct any hazardous conditions found;
- appropriate written instructions, available for reference by all workers, to supplement the OH&S Regulations;⁴⁵
- provision for holding periodic management meetings for the purpose of reviewing health and safety activities and incident trends, and for the determination of necessary courses of action;
- provision for the prompt investigation of incidents to determine the action necessary to prevent their recurrence;⁴⁶
- provision for the maintenance of records and statistics, including reports of inspections and incident investigations, with provision for making this information available to the joint committee or worker health and safety representative, as applicable and, upon request, to an officer, the union representing the workers at the workplace or, if there is no union, the workers at the workplace; and
- provision by the employer for the instruction and supervision of workers in the safe performance of their work.

⁴³ Section 3.1(1.1) of Part 3 of the Regulations.

⁴⁴ Section 3.3 of Part 3 of the Regulations.

⁴⁵ This provision establishes the requirement for formal operational guidelines and/or standard operating procedures for the Department’s primary activities, including emergency scene operations.

⁴⁶ Section 3.4 of Part 3 of the Regulations stipulates the required contents of any incident investigation report that is required to be completed.

Each AHJ should, in consultation with its Department(s), ensure that its OH&S program (or the program which it has specified for its Department) is current and is properly understood and applied by its Department. Where no formal program exists, even if not expressly required (i.e., the AHJ has, in total, fewer than 20 employees, including its fire department) consideration should be given to developing and implementing one. It also should be noted that, even if the obligation to have a formal OH&S program does not apply, it does not relieve the AHJ of its responsibilities for OH&S matters. Implementation of a formal program greatly assists in ensuring that OH&S matters are being properly addressed.

Joint Health and Safety Committee

As part of an OH&S program, employers are required to establish joint committees (or appoint worker safety representatives) to review safety issues. Pursuant to section 31.3 of the Part 31 of the OH&S Regulations, in a situation where an employer is required to

“establish a joint committee or [appoint a] worker health and safety representative, then a fire department ... operated by the employer **must have a separate joint committee or worker safety representative**, as applicable”. [emphasis added]

The rules pertaining to the operation of the joint committee / worker representative system were recently updated. Under BC Reg. 312/2016, which amended the OH&S Regulation with effect from 3 April 2017.⁴⁷

- there must be an annual, written evaluation conducted examining, among other things:
 - whether the joint committee membership requirements and selection processes met WCA requirements (ss. 3.26(3)(a)(i) - (iii));
 - whether the joint committee fulfilled each of its duties and functions and met as required by the WCA (ss. 3.26(3)(iv) and (v));
 - whether the joint committee operated as provided in the WCA, including with respect to training, administrative support and other specified matters (ss. 3.26(3)(vi) – (xii)); and
 - the effectiveness of the rules of procedure and overall effectiveness of the joint committee (ss. 3.26(4) & (5); and
- members of a joint committee must receive certain specified training, aggregating, in total 8 hours, and worker representatives must receive similar training aggregating 4 hours (ss. 3.27 (2) & (3)), covering the matters specified in ss. 3.27 (4) & (5), respectively.

The training obligations appear to apply only to new members of a joint committee or new worker representatives, in each case, appointed after 3 April 2017. In certain circumstances,

⁴⁷ A copy of this new regulation is attached as Appendix 4.

the training obligation is waived where a new appointee has already received the training in question (ss. 3.27 (6) & (7)). Certain records keeping obligations are attached to the new, explicit training requirements.⁴⁸

As noted above, only two of the Departments reviewed are operating a joint committee/worker representative system as required by the OH&S Regulations (though one Department may fall below the numbers required to have such a system in place). The following is a general discussion of the requirements for the proper creation and operation of a joint committee by the relevant AHJ.

The provisions covering the establishment of joint committees are found in sections 125 – 129 and section 139 of the WCA. Section 125 requires that a separate committee be established for each workplace where 20 or more workers of the employer are regularly employed, while section 139 requires that a worker safety representative be appointed in each workplace where there are from 10 to 19 employees.

A number of the Departments reviewed have fewer than 20 members. One Society Department (Tobiano) currently has fewer than 10 members. Even the Tobiano Department, however, should plan, as a minimum, to operate a worker representative system and appropriate, preferably formal, OH&S program, since one of its short-term goals is to materially increase its membership. Such systems also ensure that OH&S matters are being properly addressed, in circumstances where members face significant risks from the work they undertake.

For the TNRD, it should be noted that other regional districts, such as the CSRD, have obtained permission to operate a single joint committee across multiple fire departments, an approach that may be worth emulating: it would permit the TNRD to take the lead in managing the joint committee process; it would enable the TNRD to have oversight into OH&S issues on a regular basis; and it would relieve the Departments of certain records keeping and related administrative obligations.⁴⁹ Meetings could be held monthly, by a combination of conference call and in-person attendance, with each RD Department reporting on issues affecting its operations.

In relation to the establishment of a joint committee, the WCA sets out detailed and prescriptive requirements regarding (among other things):

- membership on the joint committee and appointment of co-chairs from amongst the employer and employee representatives;⁵⁰

⁴⁸ B.C. Reg. 312/2016, ss. 3.26(8) & (9).

⁴⁹ See section 126(1)(b) of the WCA which permits the employer to obtain permission to operate a single joint committee for multiple workplaces.

⁵⁰ Sections 127 - 129 of the WCA. Minimum membership on the joint committee is four: two employer representatives and two worker representatives. One employer representative and one worker representative must act as co-chairs.

- the means of selecting the worker and employer representatives;⁵¹
- the duties and functions of a joint committee;⁵²
- the requirement for monthly meetings;⁵³
- certain administrative requirements (such as the keeping and posting of minutes of the joint committee meetings);⁵⁴
- the obligation of an employer to respond to recommendations from the joint committee;⁵⁵ and
- the employer's obligation to provide administrative support to the joint committee.⁵⁶

It should be noted that, the following provisions apply where a worker representative is appointed under section 139:

“139(2) The worker health and safety representative must be selected in accordance with section 128 from among the workers at the workplace who do not exercise managerial functions at that workplace.

139(3) To the extent practicable, a worker health and safety representative has the same duties and functions as a joint committee.

139(4) Sections 133 to 136 [which deal with various administrative matters, including support by the employer] apply in relation to a worker health and safety representative as if the representative were a joint committee or member of a joint committee.”

The establishment and operation of a proper joint committee or appointment of a worker representative is a statutory requirement. Each AHJ should work with its Department or Departments to address any current deficiencies.

Once established, the joint committee/worker representative is primarily responsible for ensuring that the Departments are meeting the requirements of the applicable OH&S program (including, for example, regular checks of the premises, apparatus and equipment), and for investigating workplace incidents should they arise. The new amending regulation has also

⁵¹ Section 128 (worker representatives) and section 129 (employer representatives) of the WCA. As there is no union involved, selection of worker representatives must be by secret ballot – see section 128(1)(b).

⁵² Section 130 of the WCA.

⁵³ Section 131(2) of the WCA.

⁵⁴ See sections 137(1) and 138 of the WCA. Minutes of the last three meetings of the joint committee must be posted in each fire hall.

⁵⁵ Section 133 of the WCA.

⁵⁶ Section 136 of the WCA.

prescribed certain tasks and responsibilities for the joint committee/worker representative in relation to workplace incident investigations.⁵⁷

The proper operation of a joint committee/worker representative system can be a time-consuming task. One of the issues frequently identified when working with volunteer and paid-on-call departments was a lack of interest or willingness on the part of the members to afford additional personal time to this administrative responsibility. To overcome this problem, each AHJ should consider the following:

- whether the individuals who participate on the committees or act as worker representatives should be remunerated for the time they will be required to commit – perhaps with a separate monthly stipend, plus an hourly rate in the event that the joint committee has to undertake an accident investigation or similar enquiry; and
- if the committees are established locally within each Department, whether the regular monthly meetings of each joint committee could be timed to occur at the end of one of the regular practice nights. Most monthly committee meetings will not be long and committee members can be excused from any post-practice apparatus or equipment clean-up to attend the meeting.

Recommendation: Each AHJ review with its Department or Departments the current state of its OH&S program and related appointment of a joint committee or worker representative. The new rules established under B.C. Reg. 312/2016 related to joint committees and worker representatives need to be taken into account when so doing.

Recommendation: The TNRD, in consultation with the RD Departments, consider creating a single joint committee for its Departments, and take the lead in managing the process and related records keeping.

Recommendation: Depending on how the underlying bylaw and contractual structures for the Society Departments are revised, the TNRD should consider either: (a) including some or all of the Society Departments as participants in a shared joint committee (subject to any necessary approvals from WorkSafe BC); or (b) requiring that each Society report back on its compliance with its OH&S obligations. If the Society Departments become RD Departments, they should participate in the single joint committee structure recommended above.

⁵⁷ B.C. Reg. 312/2016, s. 3.28.

Fire Department Records

Each individual Department report provides an overview of where that specific Department has met or fallen short of its record keeping requirements.

One of the most significant changes in requirements for fire departments in recent years has been the increased need to create and maintain thorough records of department operations, maintenance and training. Meeting these obligations is necessary to ensure that a Department can properly manage its operations, and to improve member safety and limit liability concerns for both the Department and the relevant AHJ.

The critical nature of proper records keeping was made evident in the accident investigation report conducted by WorkSafe BC into the 2004 line of duty death in Clearwater. In that case, a 23-year-old volunteer firefighter died during an interior attack at a restaurant fire. The WorkSafe BC investigation noted, among other things, that:⁵⁸

- the department lacked written operational guidelines governing interior attacks or other fire ground operations;
- neither the Fire Chief nor the Deputy Chief could prove that they had accredited incident command training;
- the department could produce no training records for accredited training done by the interior attack team, rapid intervention team or fire officers in charge; and
- there was no documentation proving that the self-contained breathing apparatus (“SCBA”) equipment had been serviced or repaired by qualified persons, and the records themselves had not been maintained in accordance with the required standards.

One of the major issues facing the department was that it lacked appropriate records of both training and equipment maintenance. When faced with a significant OH&S issue, it was unable to provide effective evidence of the training and capabilities of its members and officers.⁵⁹ While we understand this reference may be sensitive to those who were involved with the incident, and for that we apologize, we feel it provides one of better examples of the importance maintaining good records. Based on our review of the Clearwater Department, it is evident that it has absorbed this difficult lesson and now maintains good records and operates a well-considered occupational health and safety program.

In Appendix 2, we have set out an overview of the records which fire departments generally must or should keep in order for meeting their statutory, regulatory and operational

⁵⁸ The WorkSafe BC accident investigation report was completed 26 April 2005; references to this report are drawn from the B.C. Coroners Service, “Judgement of Inquiry into the Death of Chad Jerry Schapansky,” 2 February 2006 (the “Schapansky Inquiry”), at pp. 4 - 5.

⁵⁹ The Fire Chief maintained that both Schapansky and his partner had received “adequate training to do the job they were given.” Schapansky Inquiry, p. 7. WorkSafe BC, however, found insufficient documentation of training to support that view. Schapansky Inquiry, p. 5.

requirements. The Departments and their respective AHJs should review those requirements and ensure that they are maintaining all of the required records. In relation to training records, it should be noted that the following criteria need to be met, to ensure that the Departments can readily prove each firefighter's and officer's qualifications:

- the training must be delivered by a qualified instructor (see discussion in the Playbook Implementation section, below). The instructor's qualifications to teach a particular subject or job performance requirement ("JPR") need to be provable (particularly where training is being delivered in-house);
- the subject matter of the training needs to be clearly described in the records. If the training relates to a particular JPR under an NFPA standard, that JPR should be identified; and
- each participant in the training needs to be evaluated, and his or her results duly recorded. Ideally, the evaluation process should be described as part of the training program or evident from the records kept.

As previously noted, detailed reviews of specific Department record keeping can be found in the individual department reports. In general, record keeping is an area where many of the Departments are struggling (which is not an uncommon situation for volunteer departments), although we are pleased to report that some of the Departments are doing very well and clearly meeting the required mandates. Overall, there are a variety of methods currently in use by individual Departments to maintain training and other required records. The most common method is still the use of paper-based systems although some have transitioned onto an electronic software program called FireHall.net. Excel is also used by one Department in support of its paper-based system. While it is not within the scope of work of this project to do a formal analysis of FireHall.net as a records management program, suffice to say that, when set up properly, it has been effectively used by a number of different departments in BC. Properly used, FireHall.net enables fire departments to maintain a good record of individual firefighter and officer training. There are also other cost-effective, commercially available records management systems that are equally good.

Several of the Departments currently only maintain group training records relating to their weekly training, as opposed to individual member records as is required. In most cases, the records merely note attendance, and do not indicate whether or how members were evaluated. This type of group records keeping does not provide sufficient detail of an individual's level of training, and are very difficult to manage in the event it becomes necessary to prove an individual's qualifications. They also do not allow a Department to properly plan its future training program, as it is difficult to determine what skills need to be taught or refreshed.

As Departments transition from maintaining these weekly group training records to maintaining individual training records, the advantages of an electronic records management system will quickly become apparent. An effective and comprehensive paper-based records management system is far more time-consuming to create and maintain than an electronic one. At the same time, it is critical that any new electronics records management system be properly set up when

first created, to allow for easy and correct data input and extraction of individual records as required. If the data is not readily available in the form of reports and individual training records, it is of little value to the Department or the AHJ which is responsible for overseeing the training. In addition, this type of transition requires appropriate and thorough training, with readily available support during the transition period. The TNRD should consider collaborating with other interested AHJs to create a common electronic record keeping system set up and approach. The smaller Departments in particular will require assistance in this area.

Recommendation: Proper and thorough records keeping is essential for the Departments and their respective AHJs. While several of the Departments (notably, Clearwater, Blackpool and South Green Lake) are maintaining good training and other records, most Departments are finding this a major challenge. There are clear advantages to moving to using electronic records management systems, though the selection, set up and training involved would best be managed collaboratively among the AHJs. If a standardized system can be adopted, the costs can be shared. This is a matter which the AHJs should review with their respective Departments and each other.

Operational Guidelines

A complete and thorough set of operational guidelines (“OGs”) is both a WorkSafe BC requirement, and a prerequisite of the Playbook to conducting any form of fire ground operations including both interior and exterior operations. Developing and maintaining a complete set of OGs, however, is challenging, particularly for volunteer fire departments. During the audit process, each Department was requested to provide its OG manuals for review. Most were able to comply with this request and some were provided during the on-site visit. Of the OGs that were submitted for review, most are either a combination of the generic set of OGs provided by the TNRD or borrowed from other departments, with additions by the local Department. In general, though, many of the sets were outdated or incomplete. Typically, the OGs missing were the ones that related to actual operational issues which the Departments reasonably can expect to encounter.

As discussed previously, the absence of written operational guidelines greatly increases the risk for firefighters undertaking fire ground operations and significantly increases the potential for liability for the Department and relevant AHJ. The Regional District has developed a reasonably effective set of generically written OGs which, when amended, could form the basis of an OG manual for all Departments. In addition, there is no reason Departments cannot use as templates OGs developed by other departments within the Regional District or from elsewhere in the province to complete their manuals. In saying this, we caution the Departments to ensure they do not simply adopt other departments’ guidelines or the TNRD generic guidelines without first adapting or amending same to their local conditions.

It may be useful for the TNRD and other AHJs, and their respective Fire Chiefs and officers, to collaborate to create a comprehensive set of OGs. Some regional districts, such as the CSRD, have developed a good set of fundamental OGs which are made available electronically to their

departments. The OGs are then maintained centrally, and updated based on input from the participating departments. This is typically a collaborative process, and usually focuses on operational (as opposed to administrative) matters.

Recommendation: The AHJs, in cooperation with the Departments, ensure that each Department has a complete set of OGs as needed to carry out their emergency response operations and as required by WorkSafe BC and the Playbook.

Apparatus and Equipment

A general inspection and review of each Department's apparatus was conducted during the Review. In general (with some exceptions as noted in specific Department reports), all apparatus was found to be in good order and, according to the respective Fire Chiefs, was sufficient to provide the required level fire and rescue protection as mandated.

Several Departments that had apparatus nearing, or in some cases, exceeding their Fire Underwriters rateable life span, need to put plans in place to replace the apparatus in the near future. In general, in order to be included in a fire department's rating, frontline apparatus must be less than 20 years old. The Fire Underwriters do permit departments in small to medium-sized communities to apply to extend the grading recognition status of older apparatus. In that regard, they note as follows:⁶⁰

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

Under the FUS system, it appears that the testing required is an annual “Acceptance Test” as specified under NFPA 1901, *Standard for Automotive Fire Apparatus*. By utilizing this approach, it may be possible to extend the lifespan of a particular piece of apparatus by a further five years (so that replacement does not occur until the apparatus is 25 years old).⁶¹

Some caveats should be noted. FUS requires that departments which wish to extend the usable life-span of their apparatus to make application to FUS; they also appear to reserve the right to refuse to grant credit to such vehicles:⁶²

“Due to municipal budget constraints within small communities we have continued to recognize apparatus over twenty years of age, provided the truck successfully meets the recommended annual tests and has been deemed to be in excellent mechanical condition.”

⁶⁰ Fire Underwriters, *Insurance Grading Recognition of Used or Rebuilt Fire Apparatus* (2007), p.3, note 2 (hereafter, *Apparatus Recognition*).

⁶¹ FUS, *Apparatus Recognition*, p. 5, table 2.

⁶² FUS, *Apparatus Recognition*, p. 2

They go on to note, however:⁶³

“Apparatus exceeding 20 years of age may not be considered to be eligible for insurance grading purposes regardless of testing. Application must be made in writing to Fire Underwriters Survey for an extension of the grade-able life of the apparatus.”

There are, however, obvious risks in attempting to extend the life of fire apparatus beyond 20 years. Although actual mileage on these vehicles tends to be relatively low, their usage is extreme: they always travel fully loaded, and in responding to any emergency call, typically are significantly stressed by each use. For those Departments whose pumpers are beyond the normal 20-year life span, the Departments should consider making (or continue to make) application to the Fire Underwriters to extend their respective vehicles' life spans.

Currently each Department, on an individual basis, maintains apparatus either in-house or through the use of a local independent contractor. Similarly, major repairs and annual pump testing is contracted out to one of several qualified contractors. It should be noted that annual pump testing is an NFPA requirement and we encourage all Departments to adhere to these standards. It is also a standard expected to be met by the Fire Underwriters (and required for Departments which are extending the life-span of their vehicles).

As noted earlier, the FUS has set the gradable lifespan of fire apparatus at 20 years. Tenders and rescue trucks tend to have less stringent replacement requirements although it is advisable to replace these vehicles before they reach a condition in which their reliability becomes uncertain.⁶⁴ This is particularly true where a Department is dependent on its tenders for its fundamental water supply.

The final issue to be considered is the matter of equipment testing for turnout gear, ladders, SCBA, rescue ropes and related equipment. Most of the equipment used in the fire service has standards under which it must be tested – either under the OH&S Regulation or the relevant NFPA standard (or both). Each specific item has a different time frame for its testing and records of those tests must be kept and be available for inspection in the event of an equipment failure or a firefighter injury or death. In certain cases, equipment also has a mandated or recommended life-span (e.g., bunker gear). Use of the equipment beyond that life-span creates a liability risk.

We conducted only a survey review of the equipment testing records during the on-site visits and issues that were identified have been noted in the individual Department reports. However, there is a need for all of the Departments to review their individual equipment testing and maintenance procedures and related records keeping, and compare them to the respective NFPA and WorkSafe BC requirements. Any shortfalls should be addressed immediately.

⁶³ FUS, *Apparatus Recognition*, p. 5, table 2, note 4.

⁶⁴ We have seen occasions where tenders also have been subject to a 20-year life span rating by the Fire Underwriters, though the reviews are not consistent in this regard. Rescue trucks are not rated because they do not, in the Fire Underwriters' view, contribute to fire suppression activities.

Recommendation: That the AHJs review with the Departments their individual equipment testing procedures and record keeping procedures, and compare them to the respective NFPA and WorkSafe BC requirements. Any shortfalls should be addressed immediately.

Budgets and Financing

The introduction of the Playbook may be seen as a defining event and turning point in the delivery of fire service in BC, whether by a volunteer or career department. The Playbook has:

- clarified the minimum training (and other) standards for structure firefighters and the performance of their duties;
- reinforced the need for compliance with WorkSafe and OH&S requirements; and
- created an accountability framework for the AHJs.

The Playbook is focused on both the health and safety of the firefighters as well as the accountability expectations for the AHJ, which will ultimately promote the mitigation of potential liability and risk. Another key element impacting the effective delivery of fire services for the residents in the services areas is ensuring that the Departments meet the requirements of the Fire Underwriters to achieve the highest practical rating to reduce the cost of fire insurance for residents and businesses. A third factor which will impose a requirement on the AHJ is the new *Fire Safety Act* as it relates to fire inspections and investigations. Each of these matters – the Playbook, the new *Fire Safety Act*, and the Fire Underwriters rating process, is discussed in other sections of this report.

In its financial deliberations, the AHJ must consider a number of factors to determine the most appropriate implementation approach to meeting the future needs for the safe and effective delivery of fire services in its Department or Departments. In summary, the AHJ's must confirm the level of service to be provided by each Department, ensure that the statutory, administrative and operational requirements are met, and provide the budgetary, other support and leadership necessary to achieve these goals.

There has been an increasing workload demand on fire departments and particularly the fire chiefs to undertake the essential tasks necessary to meet the basic statutory and administrative requirements. Although many of these requirements were in effect prior to the introduction of the Playbook, the Playbook has clarified a number of areas of ambiguity and confirmed the accountability of the AHJ for ensuring these issues are addressed. Also included in Appendix 3 is a high-level discussion of potential budget impacts and challenges facing all small departments, particularly Society and the Local Service Areas of the TNRD, in relation to ensuring the financial sustainability of such Departments.

While there clearly is a range among the 11 Departments reviewed, the growing administrative requirements and the gaps identified in existing systems and processes, indicate that most require additional investment in their organizational capacity. Ultimately, this responsibility rests with the AHJ and for most of the reviewed Departments, will involve a budgetary impact to meet

the essential requirements of the Playbook and WorkSafe BC requirements. Where these processes can be centralized (e.g., by the TRND for Departments for which it is responsible), it may be possible to improve organizational processes and manage these matters more efficiently. To the extent that the Society Departments can collaborate with the RD Departments to create a single system, it would further enhance efficiency.

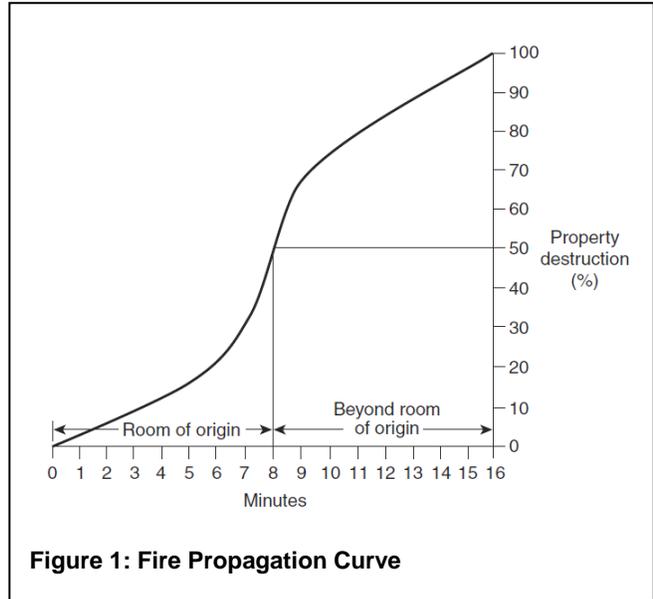
Meetings with Fire Chiefs

During the site visits, each Fire Chief was given the opportunity to provide his or her input regarding the current organizational structure and support systems available from the Department's AHJ. In addition, the Fire Chiefs were asked specific questions pertaining to what structure they would like to see in the future. Other Department officers and members were included, as determined appropriate by the Fire Chief (and availability).

In addition to the interviews, the on-site visits included reviewing each Department's facilities, apparatus, equipment and records. The information gathered through this process was used to develop the individual Department reports. The on-site visits were supplemented by additional materials provided during the information gathering phase, and completion of a questionnaire which is based on the Office of the Fire Commissioner's audit document.

Standards of Service

The standards of service that apply to the fire service include those related to response time objectives. These are defined by the National Fire Protection Association (the “NFPA”) and include time intervals for 911 call handling, dispatch, turnout of crews and travel to the scene. Each of these will be described in further detail in the following sections however a key element for all fire responses is the relationship between time and the degree of fire damage. This is illustrated in Figure 1 which shows the rate of change / percentage of destruction from the time at which a fire ignites. This fire propagation model is well documented and explains why each element of fire response is critical because at or about eight minutes from ignition a fire will flashover and extend beyond the room of origin. This increases the risk to the resident as well as to the firefighter, and certainly increases the amount of resulting damage.



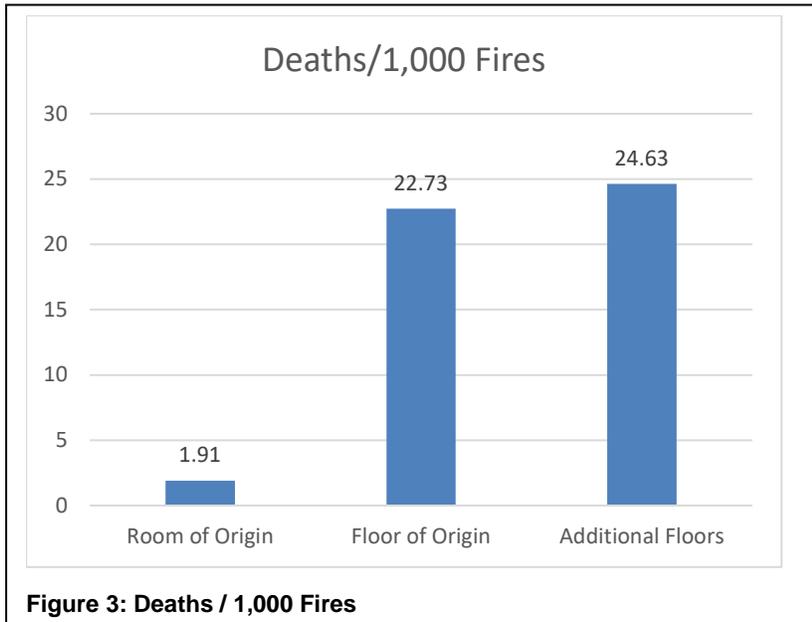
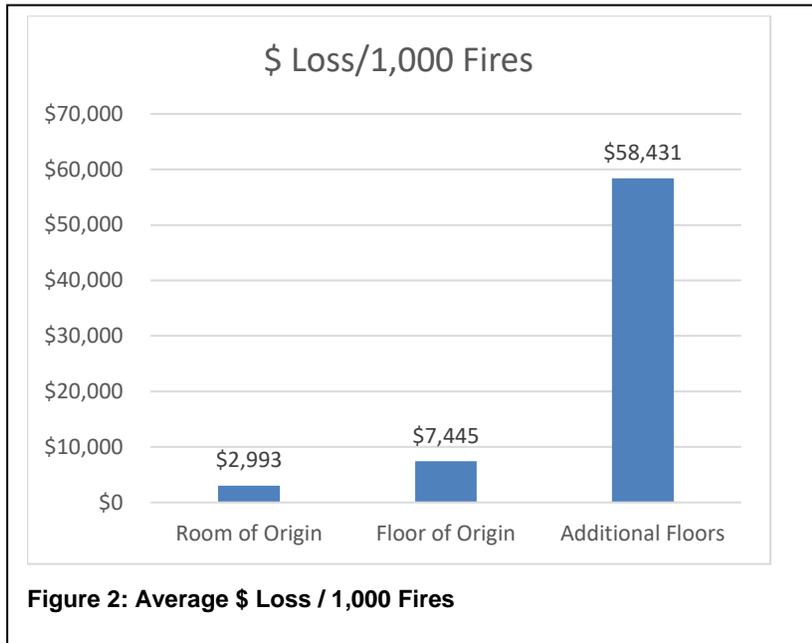
The relationship between the deployment of sufficient firefighters within a defined timeframe relative to fire loss and injury has been documented by the NFPA and this is shown in Table 1. From this it can be seen that confining a fire to the room of origin results in an average dollar loss of \$2,993.

Flame Spread	Civilian Deaths	Civilian Injuries	Average Dollar Loss per Fire
Confined fires or contained fire identified by incident type	0.000	10.29	\$212
Confined fire or flame damage confined to object of origin	0.65	13.53	\$1,565
Confined to room of origin, including confined fires and fires confined to object	1.91	25.32	\$2,993
Beyond the room but confined to the floor of origin	22.73	64.13	\$7,445
Beyond floor of origin	24.63	60.41	\$58,431

Table 1

Fires which extend beyond the room of origin but which are contained to the floor of origin result in an average dollar loss of \$7,445 while fires which extend beyond the floor of origin result in an average dollar loss of \$58,421⁶⁵. Similarly, where a fire is held to the room of origin civilian fire deaths do not exceed 1.91 per thousand fires, but where the fire extends beyond the room of origin there are 22.73 deaths per thousand fires.

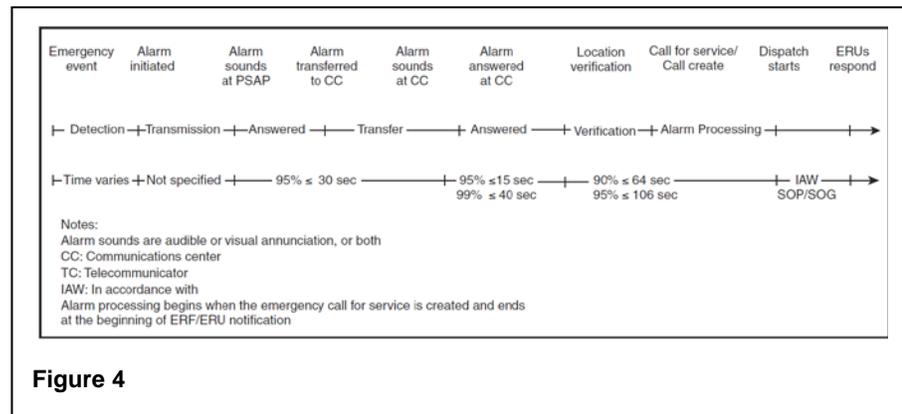
This data is shown graphically in Figure 2 in terms of dollar loss per 1,000 fires and in Figure 3 in terms of deaths per 1,000 fires.



⁶⁵ The data used in this table is for the United States; there is no similar aggregation of national data in Canada.

NFPA 1221

The NFPA 1221 Standard outlines that 911 call handling, pickup of the 911 call by a fire dispatcher and the process to dispatch fire apparatus should occur within a total of 109 seconds as shown in Figure 4. The alarm handling times are the sum of alarm transferred to the CC (call center) + alarm answered + location verified + call for service created.



From that point, the key time elements are found in NFPA 1720, which is the standard for volunteer fire departments.

NFPA 1720

The NFPA 1720 standard applies to volunteer fire departments and the proposed response times recognize that there is variability in terms of density of population in suburban and rural areas. For this reason, the time targeted for arrival and assembly of a fire crew decreases with density, as shown in Figure 5. It is understood that, for some fire departments challenged by longer travel distances, they are not likely to arrive with sufficient firefighters within eight minutes; however, that remains a goal based on our understanding of the effect of longer response times on damage, injuries and fire fatalities.

Demand Zone ^a	Demographics	Minimum Staff to Respond ^b	Response Time (minutes) ^c	Meets Objective (%)
Urban area	>1000 people/mi ²	15	9	90
Suburban area	500-1000 people/mi ²	10	10	80
Rural area	<500 people/mi ²	6	14	80
Remote area	Travel distance ≥ 8 mi	4	Directly dependent on travel distance	90
Special risks	Determined by AHJ	Determined by AHJ based on risk	Determined by AHJ	90

^aA jurisdiction can have more than one demand zone.
^bMinimum staffing includes members responding from the AHJs department and automatic aid
^cResponse time begins upon completion of the dispatch notification and ends at the time interval shown in the table.

Figure 5

Training Standards and Requirements

Playbook – Impact of Implementation

The Playbook established a new set of training standards for fire services personnel in B.C. In order to determine what standards apply, it contemplates that a fire department may deliver one of three possible levels of service, and then establishes the principal minimum training required to qualify for each level of service:

- **Exterior Operations** – where a fire department does not undertake interior attack or rescue operations in a fire-involved structure or object, or operate in an atmosphere that is “immediately dangerous to life and health”.
- **Interior Operations** – where a fire department, in appropriate circumstances, will enter a fire-involved structure or object to undertake fire suppression activities or conduct rescue operations. Interior operations by these departments are generally to be limited to smaller structures, such as single-family dwellings and vehicles, except where specific hazard assessments and preplanning have been undertaken in respect of more complex risks.
- **Full Service** – a full service department is equipped, staffed and trained to provide a full spectrum of fire suppression services.

One of the new aspects introduced by the Playbook is an explicit requirement for the “Authority Having Jurisdiction” over a fire department expressly to set the level of service that is expected to be provided by its department or departments. The training, organization, staffing, equipment and apparatus required to support the chosen level of service will be impacted by that determination.

As noted above, the “Authority Having Jurisdiction” varies by Department in the TNRD, with the Local Governments being the AHJs in relation to the Departments that they have established and which they are responsible for operating, and the Societies being the AHJ in relation to the Society Departments. The AHJ also has some other specific obligations which must be met, and which will be considered in greater detail below.

The Playbook also establishes minimum standards for individuals providing training. The second edition clarified that no third-party certification is required for in-house trainers. Rather, they must be “qualified” in the subjects or areas that they are teaching. Each in-house trainer’s qualifications, however, should be readily ascertainable and supported by good records.

The Playbook emphasizes the responsibility of the AHJ to ensure that firefighters are properly trained and equipped, and that adequate records are maintained evidencing the qualifications of both members and officers. These are not new obligations – they essentially are derived from the WCA requirements – but the Playbook has highlighted these issues, since they reflect endemic challenges in the fire service.

As a result of the Playbook, each AHJ must now set – whether under bylaw or by policy – the service level that it expects each of the Departments to provide. In the second edition of the Playbook, the OFC has required that each AHJ establish a service level for its department or

departments by 30 June 2016 and implement corresponding training programs for its members and officers. Several Departments indicated that, to their knowledge, a service level has not been set for them, an issue identified where relevant in the individual Department reports. This gap should be remedied and formal service level declarations made for each Department if this has not been done. Where the gap was identified, a form of service level policy was provided for consideration by the affected AHJ.

As noted above, our recommendation is that, as the Local Governments update their respective bylaw structures, the revisions explicitly include a process for setting the Service Level by policy. This approach permits greater flexibility than setting the actual service level in the bylaw itself.

It should be noted that the Playbook is not a complete system – unlike the former Minister’s Order on training, it is not yet all-encompassing. One issue that arises, therefore, is the question of what standards apply to training and proficiency requirements not covered by the Playbook itself. Although there are several indications in the Playbook that NFPA standards are expected to apply to other functions (which was what was required by the previous Minister’s Order on training),⁶⁶ ambiguity now exists as to the standards applicable for a wide range of firefighter training.

Given the requirements of the WCA, which imposes a positive obligation on employers to train workers appropriately, and given that the only recognized standards that exist in North America for the training of fire services personnel are those established by the NFPA, the better approach is to assume that those standards remain applicable to the training of fire service personnel. Should an AHJ choose to adopt a different standard (or no standard at all) in relation to the training applicable to other fire service functions, if an incident occurs which relates back to training issues, that local government will be faced with the unenviable task of justifying the approach that it has taken, in circumstances where, *prima facie*, there is evidence of a problem.

Each AHJ has the following principal obligations under the Playbook:

- to establish the Service Level for each Department for which it is responsible; (s. 3, p. 4/20);
- to ensure that each Department meets “the appropriate competency requirements as identified in the Competency Ladder, as well as for functions and roles not expressly covered” in the Playbook; (s. 3, p. 4/20);
- to determine the appropriate means of delivering training (e.g., in house, externally or some combination of both); s. 6;
- to ensure that appropriate records are kept; s. 6 p. 6/20;
- to ensure that the Departments undertake the necessary maintenance training; s. 7 p.7/20; and

⁶⁶ The second edition did not entirely clarify the matter, though it even more clearly suggests that the appropriate standards applicable to matters not yet covered are those set by the NFPA.

- to ensure that the training program established meets the requirements of the Playbook and WCA; p. 10/20.

In general, the AHJ's role is to provide oversight and ensure compliance. The Departments are responsible for actually undertaking the activities (e.g., records keeping) or implementing the requirements (e.g., training of fire services personnel), although each AHJ may wish to provide direct assistance in relation to certain administrative matters, such as the operation of compliant joint committees, assistance with records keeping, and similar administrative assistance.

Training Standards

As noted above, the Playbook is not a complete training system – unlike the former Minister's Order on training, it is not yet all-encompassing. In our view, the safest and most appropriate approach for AHJs is to use NPFA training standards for functions not expressly covered by the Playbook. The following sections were developed on that premise.

For each of the three levels of service, the Playbook outlines corresponding competency levels (levels of training) which must be met in order to provide that level of service. The service levels and corresponding training levels are:

Exterior Operations Level

- Exterior Attack Firefighter
- Exterior Attack Team Leader
- Risk Management Officer (an administrative role)

Interior Operations Level

- Interior Attack Fire Fighter
- Interior Attack Team Leader

Full Service Operations Level

- Firefighter
- Company Fire Officer

Each of the training levels has identified prerequisite minimum training requirements which are identified in the Playbook – it is a ladder system, where, in general, the prior rungs must already have been achieved. For example, to train to the Interior Attack Firefighter level one must also have completed the training required for the Exterior Attack Firefighter. Similarly, Interior Attack Team Leader training also includes completion of all Exterior Attack Team Leader training. In this way, the advancement through the Playbook system is intended to build on training already completed.

As discussed earlier, NFPA standards form the basis for all training outlined in the Playbook, including: *NFPA 1001 Standard for Fire Fighter Professional Qualifications* and *NFPA 1021 Standard for Fire Officer Professional Qualifications*. In addition, there are other references to NFPA standards which are to be applied or used.

Prior to the implementation of the Playbook, a common training program used by many volunteer fire departments throughout the province was the “BC Basic Firefighter Program” (“BC Basic”). The program was developed and offered by the Justice Institute of BC and could be taken in a distant learning format, which was popular with volunteer departments. The program content was derived from the NFPA 1001 Firefighter I standard and therefore met the intent of the previous Minister’s Order in that training was to NFPA standards. Completion of the BC Basic program, in the words of the Justice Institute of BC, allowed “...departments to demonstrate that their fire fighters possess the **minimum** fire fighter skills within NFPA 1001” (emphasis added).

The BC Basic Program meets many, but not all, of the requirements for Exterior Operations Firefighter in the Playbook.⁶⁷ To meet Playbook standards, therefore, individuals trained to the BC Basic standard must undertake some bridging training to meet the additional Playbook requirements. This bridging needs to be demonstrated through adequate training records and evaluation forms. Similarly, current Department officers, or those members currently working towards officer positions, can have their completed courses assessed and bridged to the Playbook requirements. The Playbook provides a description of who is responsible for completing these assessments and what qualifications they must possess.

Recommendation: Where the relevant AHJ has not yet formally set a Service Level for its Department or Departments, it should do so as a matter of priority.

Recommendation: As the Playbook is not a complete training system, each AHJ should consider what standards apply to training for functions not yet covered. We recommend that each AHJ direct its Department or Department to use NFPA standards for training in relation to functions not specifically addressed by the Playbook.

Volunteer Recruitment and Retention

The recruitment and retention of volunteer firefighters has become one of the principal challenges facing the fire service in British Columbia and across Canada. The difficulties surrounding the recruitment and retention of volunteers were specifically identified as significant issues in the Fire Services Liaison Group report, *Public Safety in British Columbia: Transforming the Fire Service* (2009),⁶⁸ and has universally been identified as a problem by each of the

⁶⁷ BC Basic did not include Emergency Scene Traffic, Communications, Basic Fire Behavior and Building Construction, Hazmat Awareness, Gas and Electrical Safety for Firefighters and ICS 100 as per BC Emergency Management System, all of which are required under the Playbook for Exterior Operations.

⁶⁸ The report examined the challenges facing the fire services generally in the province. See recommendation 4 of the FSLG Report, on pp. 20 ff.

volunteer-based services with whom we have worked over the past decade or more.⁶⁹ Some of the Departments are facing challenges in this area while others are more successful.

The problems facing the recruitment of volunteer firefighters are manifold and include:

1. The time commitment required to meet the training and qualification standards required of a firefighter has significantly increased since the 1970s and 1980s. The discussion of training issues in this report aptly illustrates how challenging it can be to train firefighters to the mandated standards. It can take as much as two to three years to train a volunteer firefighter to the Playbook and/or NFPA 1001 standards (depending on service level) and the time involved in meeting the on-going skills maintenance is significant;
2. It is more challenging to attract new candidates. The reasons vary, but include: changing demographics (an “aging population”); increasingly transient populations; a change in the overall level of “volunteerism”; and changes in work patterns, where families have both parents working (sometimes in multiple jobs) to make ends meet. Departments face additional challenges in that the population base from which they draw their volunteer complements are usually relatively small. Several Fire Chiefs noted that the community’s demographics are increasingly moving towards a “retirement” age population and that many of the younger residents move away for better economic or educational opportunities;
3. Even where volunteers have successfully been recruited, business-day responses are weak, as employers are less willing to allow their employees to leave work to respond as a member of the local fire department or the members are working at jobs outside of the community and are unable to provide a timely response; and
4. Fire chiefs and fire officers have been increasingly tasked with more burdensome administrative and training requirements. They have less time available and often lack the skill sets required, to develop and maintain a successful recruitment process in light of the challenges which have developed in this area.

In much of British Columbia, reliance on volunteer responders is both an economic and operational necessity. The costs of maintaining a career department are simply too great and cannot be supported by the economic base or justified by the call volume. Given the circumstances, the Departments will be dependent on volunteers for the foreseeable future. Faced with the necessity of maintaining an adequate number of volunteers, and the challenges of so doing, local governments – both at the municipal and regional district level – and fire departments must become more innovative in their approach to this issue. It can no longer be viewed as just a challenge for which the fire department has sole or even primary responsibility. Rather, the problem must be treated as one which is addressed in a coherent fashion by local government and its fire departments acting in tandem.

⁶⁹ While the experience varies with department, even those which are “doing well” identify that recruitment and retention of volunteers is a significant issue for them, which demands time and attention from the fire services management team.

Based on our discussions with the Departments, under the existing system (regardless of AHJ), the Fire Chiefs are primarily responsible for recruitment. Many find the recruiting process to be a significant challenge. In many cases, formal recruitment programs do not exist and the principal means of attracting new members is word-of-mouth.⁷⁰

The existing approach to recruitment needs to be reviewed. Each AHJ needs to become more proactive in seeking volunteers for the fire services, if those services are to be maintained.⁷¹ The AHJs need to assist their respective Departments with developing and managing an effective public relations / public information campaign to attract and retain new members. It may make sense to create a single, coordinated recruitment program covering all area Departments (regardless of AHJ), both to raise profile and have more impact.

Some specific issues to be considered include the following:

1. Reviewing remuneration practices for volunteer members (including benefits which may provide an inducement to join and a reason to remain a member);
2. Ensuring that the appeal for new members is as broadly-based as possible;
3. Developing and implementing the concept of “duty crews”;
4. Working with employers in the region (including local governments themselves) to encourage volunteers from amongst their employees and to permit those employees to respond to day-time calls;
5. Developing an effective and proactive recognition process that acknowledges the contribution of the volunteers (and their families) and the employers who participate as partners;
6. Reviewing the possibility of implementing a Work Experience Program (“WEP”); and
7. Making available certified training to those members who are looking to become career firefighters in the future.

Each of these issues is considered below.

Compensation

In our experience, people do not join their local volunteer fire department with the thought of financial gain; rather they do so to serve their community and to provide protection to their families and their neighbours. That being said, our experience with other volunteer departments indicates the issue of compensation can make a considerable difference in the area of retention of volunteers. Based on our discussions with the Departments during the on-site sessions,

⁷⁰ In very small communities, such as Spences Bridge, this may remain the most effective means of direct recruitment.

⁷¹ In the case of the Society Departments, the recruitment challenge should be viewed as a matter affecting both the Society and the TNRD and addressed accordingly.

there appears to be considerable difference in the rates of pay for practices and responses. It is useful to review whether the compensation they receive for the time commitment required is sufficient to ensure members are not out-of-pocket as a result of time spent training or providing services to the Department and that members are adequately compensated for any day-time responses, if those responses result in a loss of wages. It also is important to review how the Department manages its essential administrative functions and to ensure that members are compensated if they actively and regularly provide such support services.

In some cases, making available benefits – such as life/disability insurance or extended medical insurance coverage – may prove more attractive than nominal payments for attendance at practices or incidents. Creating a group benefits plan, however, needs to be implemented across as large a base as possible, to make it cost effective. This would require close collaboration among the area AHJs.

We would note that the RD Departments operated directly by the TNRD recently underwent a compensation review and increase.⁷² We also recognize that, for some area Departments, which have very limited budgets, this option may not be available to them.

Recruitment processes

Fire departments need to attract recruits from the broadest possible range of candidates. They also need to make effective use of both traditional and new media, to be aggressively proactive in getting their message out. It is critical for the AHJ to assist its Departments in these efforts, both by helping to develop and implement any media campaign, as well as by clearly and effectively conveying to the public and to employers the need for volunteer members and the benefits that accrue to the community as a whole from active participation. As suggested above, it may make sense for the AHJs to create a single program, across all area Departments, to better raise the profile of the volunteer fire services their communities rely upon.

Some volunteer departments, including some of those reviewed here, have also taken to recruiting new members specifically to assist with administrative or support functions. They have found that there is a willing group within their communities who would like to help, but not as active emergency responders. While there is always turn-over (or the potential for turn-over) in volunteers, the Departments may wish to consider whether they could attract individuals interested in helping principally with such administrative tasks.

“Duty Crews” and Employer Participation

These concepts, in some respects, are inter-linked. One of the issues facing all volunteer departments is that weekday, business-hour responses are typically very low. The problem increasingly has become one where employers, which traditionally would permit a volunteer firefighter to leave work to respond to an emergency, are no longer willing to do so. In some

⁷² See, for example, *Blackpool Volunteer Fire Department Establishment and Regulation Amendment Bylaw No. 2489, 2014*.

cases, it also is an issue for the volunteer who may not be able to afford to lose his or her pay for the time required to respond to a call. The problem is made more challenging in the Departments whose fire service areas are primarily in a residential community.

There are no magic solutions to these issues. Some approaches which should be considered include:

1. Implementing a duty crew system – for example, each member who is able, commits to responding during a specified time frame each month (e.g., one week per month) during business hours. Under this arrangement, an employer would know that his or her employee would only be responding during business hours one week per month. The concept can be refined to limit the types of calls that would go out to duty crews (e.g., to structure fires or other “major” incidents), thereby limiting the number of times per week that a day-time response will be required. Some Departments are already using a “Duty Officer” program to ensure rotating weekend coverage by officers: a similar concept could be used to create duty crews for weekday responses.
2. Rewarding the employer for participation. This reward can be tangible (e.g., a rebate on business licence fees), intangible (express public recognition by the TNRD or Municipal Council, of the employer’s participation – including a plaque or signage for the business, an awards dinner, media release by local government, etc.) or a combination of both.
3. Ensuring that volunteers are not directly “out of pocket” for responding. Some jurisdictions provide wage-loss compensation (in place of regular remuneration for a call response). We recognize this could be expensive: it would require detailed study and review before implementation, and would likely be beyond the means of a number of the smaller Departments.

Recognition

The time and cost of training up volunteers makes retention efforts as critical as recruitment. Appropriate recognition of the volunteers, and their families, is critical to ensuring their retention. Similarly, a well-developed and focused recognition program aimed at local employers who participate as partners will help to encourage participation from businesses. Recognition events need the active support and participation of all levels of local government, including elected representatives, to be fully effective.⁷³ While the Society Departments are legally separate entities, the TNRD depends on them to deliver fire services in their respective service areas. The TNRD should actively include these Departments in any recognition events.

Work Experience Program

One option that may assist in addressing staffing shortage for some Departments is the introduction of a WEP. In British Columbia, the creation of WEPs has principally been

⁷³ In one instance of which we are aware, the local government had delegated organization of the recognition event to the volunteer department itself – thereby effectively adding to the department’s workload. This approach undercut any benefits from having the event in the first place.

spearheaded by mountain resort communities, such as Big White, where small permanent populations combined with large, seasonal influxes of tourists and some material fire and other hazards, posed unique challenges. On the one hand, there are significant fire and other risks which make a fire service essential; on the other, there is a limited population base and limited tax base (and enormous seasonal fluctuation), which makes it difficult to sustain either the traditional POC/volunteer or composite/career model for a fire service. Under a WEP, the local department provides accommodation and either a small stipend or a job.⁷⁴ WEP appointments typically last for 10 to 12 months and applicants must be fully NFPA 1001 qualified for consideration. While there are various ways to structure the system, the goal (for a typical volunteer department) would be to improve day-time responses by fully-trained members. For the WEP members, the aim is to acquire a broad range of practical experience and additional training, to assist with their application for a career position in a larger department.

The challenges faced in maintaining POC/volunteer staffing levels in small communities has meant that WEPs are now actively being considered or implemented by non-resort communities.⁷⁵ In the medium term (three to five years), the Regional District should explore the possibility of introducing a WEP as a partial solution. The roll-out of such programs in other communities should be monitored and reviewed and a program be considered for implementation in the TNRD. The issue of providing or arranging accommodation for the WEP members would, however, require fire hall modifications or other means found for housing of the personnel.

There clearly will be an additional cost to operating a WEP⁷⁶ and any Departments participating would require additional administrative support to ensure that such a program is properly managed and overseen. The benefits will be a significantly improved business-day response and the availability of a cadre of NFPA 1001 trained firefighters.⁷⁷

Certified Training

For the most part, all career fire departments in the province require new recruits to have successfully completed NFPA 1001 Firefighter 2 prior to making application for a firefighter job. To achieve these prerequisites, potential candidates must attend anyone of the many institutions located across Canada and the United States and pay several thousand dollars in tuition fees. Completion of the program does not guarantee a job but merely entitles them to

⁷⁴ Typically, in resort communities the WEP members are also hired as staff members at the resort.

⁷⁵ The Town of Creston has rolled out its WEP in late 2014. The program has generally been a success by its Fire Chief, but the additional administrative and oversight requirements, and corresponding costs in terms of time and money, should not be underestimated.

⁷⁶ Under the Creston program, WEP members receive accommodation, pay for call responses, standby pay and an annual stipend of \$1800 (\$150/month) for expenses as well as free access to municipal gym and pool facilities. Members are expected to commit to a 12-month program, work a regular day-time shift Monday to Friday and are on-call on a rotating basis on the weekends. Educational and training opportunities are provided during their service period.

⁷⁷ One of the tasks often assigned to WEP members is responsibility for assisting with the training of the POC members.

start applying for positions when they come available. In addition to completion of NFPA 1001, many career departments also require that a candidate has served in a volunteer firefighter capacity for a specified period of time. Also, there is often a lag time of several years between when a potential recruit has completed the courses and is actually accepted as a recruit firefighter.

In the past, some volunteer departments have often decried this system and complain that the career departments are stealing their trained firefighters. We suggest that rather than viewing this as a disadvantage to volunteer departments it should be viewed as an opportunity.

Volunteer fire departments need to consider taking advantage of this situation in that there are many individuals looking to become career firefighters, all of whom need NFPA 1001 Firefighter 2 certification and need to spend time serving in a volunteer fire department. For a variety of reasons, many young people simply cannot afford the tuition fees or do not have the time available to leave their current job and attain the necessary firefighter training.

Volunteer departments have the ability to provide the NFPA 1001 Firefighter 2 training and can also provide the “volunteer experience” future career members need to attain. The only issue required of the Departments would be a commitment to provide “accredited” training so that upon completion a member would be certified NFPA 1001 Firefighter Level 2; in exchange, the Department could require a specified time commitment to the Department from the individual (say, 3-5 years, or some portion of the training costs have to be repaid). The arrangement would provide well-trained staff while they were with the Department, provide individuals with the opportunity to become career firefighters and develop a semi-professional training program and environment within the Departments.

Recommendation: The Departments, in cooperation with the TNRD, Societies, Municipalities and the Improvement District, should review the compensation received by volunteers for attendance at practices and when responding to emergency incidents to ensure it is fair; and that consideration be given to developing a policy for reimbursement of members’ out-of-pocket expenses, where this is financially feasible.

Recommendation: The Departments and the TNRD, Societies, Municipalities and the Improvement District, should develop a comprehensive approach to recruitment and retention including developing an effective information campaign for volunteers, reviewing the idea of volunteer benefits and implementing a duty crew system.

Recommendation: The TNRD, Societies, Municipalities and the Improvement District, should develop and implement a more effective recognition program for its volunteers. It also should develop a recognition program for employers, and in particular for those employers which permit their employees to respond to day-time call-outs.

Recommendation: The Departments and the TNRD, Societies, Municipalities and the Improvement District, should review other WEPs in the province, and consider developing and implementing similar programs. A WEP would enhance day-time responses and improve the availability of emergency responders, at a far lower cost than hiring career firefighters.

Recommendation: Those Departments not already doing so, should consider using part-time administrative assistance or volunteer support personnel at the fire hall, to assist with administrative, record keeping and data entry duties.

Recommendation: The Departments in consultation with the TNRD, Societies, Municipalities and the Improvement District, should consider developing a career pre-employment training program.

Fire Underwriters Survey

This section examines the role and importance of FUS reviews for residents in a fire protection area, and provides a brief background on the methodology that those surveys employ. Given that the rating provided by the Fire Underwriters materially impacts insurance costs for both residential and commercial buildings, it is important to understand how the rating system operates and the potential impact it has on the cost-benefit analysis of investing in the fire service. In particular, it is important to understand how investing in the fire service through civic taxes, to establish, maintain or improve an area's FUS rating, can potentially result in a net return (or the maintenance of major net savings) for residents and area businesses.

The Fire Underwriters are a national 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 was, and we believe still remains, owned or controlled by the insurance industry.

The primary purpose of the Fire Underwriters is to establish the Dwelling Protection Grade ("DPG") and Public Fire Protection Classification ("PFPC") for each community in the country.⁷⁸ The DPG rating generally applies to single family detached residences,⁷⁹ whereas the PFPC

⁷⁸ There is on-going consideration by the Fire Underwriters of the two types of classifications: it is possible that in the not-to-distant future, the two ratings will be combined so that only a single rating system exists, covering both residential and commercial/multi-family properties.

⁷⁹ Under the FUS definitions, the DPG ratings generally apply to the following: "One- and Two-Family Detached Dwellings (buildings containing not more than two dwelling units) in which each dwelling unit is occupied by members of a single family with not more than three outsiders, if any, accommodated in rented rooms." Also under this system, a "typical" detached dwelling is a maximum of 3,600 square feet in size. Fire Underwriters Survey website, "Terms of Reference", http://www.fireunderwriters.ca/dpg_e.asp accessed on 26 July 2017.

rating applies to multi-family residential, commercial, industrial and institutional buildings or districts, and generally is applied by the “commercial lines” arm of the insurance industry.⁸⁰

Most residential homeowners and businesses carry fire and general perils insurance, and any person with a mortgage is required to maintain such insurance by the mortgagee bank or financial institution. Where a community has a fire department which meets FUS standards for performance, the cost of insurance can be significantly decreased. Thus, one of the cost-benefit analyses that underpins the investment required to establish or maintain an FUS-rated fire department is the trade-off between the taxes needed to pay for the department and the expected saving on insurance costs.

With a well-rated fire department, the savings on insurance premiums often will offset, in whole or in significant part, the costs of operating the department. For an individual with a house that is assessed at a replacement cost for insurance purposes of \$300,000, a “protected” or “semi-protected” rating will generally result in cost saving on insurance of more than \$2,000. For commercial properties, significant reductions in insurance rates can be expected when the community obtains a PFPC rating of 7 or better. From the savings enjoyed on insurance, the tax cost of maintaining the service would then need to be deducted to determine the net direct financial benefit (or cost) of having a “rated” department.⁸¹

By way of example, the following tables are sometimes shown in FUS reviews.⁸² They show the amount by which “average” insurance costs drop for residential and commercial properties as the DPG or PFPC rating improves:

⁸⁰ Fire Underwriters Survey website, “What is the PFPC” at http://www.fireunderwriters.ca/pfpc_e.asp , accessed on 26 July 2017.

⁸¹ The rating system is described in greater detail in the next section. It must be stressed that the actual cost of insurance for any homeowner or business varies based on a number of individual and site-specific factors. While the FUS fire grading for the area has a significant impact, a host of other considerations are also involved in the setting of insurance rates, including matters specific to the individuals or properties involved, or the competitive forces at work in the region. It is also important to note that the insurance value of a dwelling or business is not the same as its assessed value for tax purposes (as the latter is based on the cost of building a replacement structure, not its estimated market value – the two can vary significantly).

⁸² These tables are now several years old. A number of more recent reports we have seen have not included them, or, where they have been included, have involved insurance cost figures which are particular to the locale. These figures were calculated on broad-based national averages in the reports in which they were used.

DPG Rating – Estimated Insurance Costs

Replacement Value \$	Unprotected Rate \$		Semi Protected Rate \$		Fully Protected Rate \$
100,000	1,165	60± % reduction	465	32± % reduction	315
125,000	1,470		585		400
150,000	1,750		700		475
175,000	2,040		815		555
200,000	2,710		1,215		739
250,000	3,290		1,475		893
300,000	3,880		1,741		1,053
350,000	4,422		1,987		1,201
400,000	4,953		2,226		1,349
450,000	5,489		2,465		1,491

PFPC Rating – Estimated Insurance Cost Decreases

Public Fire Protection Classification	U-Rate Percentage Decreases
PFPC 10 to PFPC 9	99.2%
PFPC 9 to PFPC 8	96.6%
PFPC 8 to PFPC 7	82.4%
PFPC 7 to PFPC 6	74.4%
PFPC 6 to PFPC 5	63.1%
PFPC 5 to PFPC 4	53.8%
PFPC 4 to PFPC 3	48.0%
PFPC 3 to PFPC 2	47.3%
PFPC 2 to PFPC 1	45.8%

As can be seen, ratings improvements in the commercial classification do not result in linear decreases. From a cost-benefit perspective, moving a rating from PFPC 8 down to ~PFPC 4 provides the optimal savings for businesses and multi-family properties. That non-linear relationship is worthy of consideration on a cost-benefit analysis between the amount required to be invested in improving the service and the expected insurance savings for owners of

commercial, industrial and multi-family properties.⁸³ Below PFPC 4, the amount required to be invested to obtain the improved rating likely will outweigh any insurance savings.

A complicating factor is that the ratings applied to a community are not necessarily uniform. FUS considers a series of issues (examined further below), which include distance from the fire hall and availability of water supplies. Depending on the size and nature of the service area, the insurance benefits may not be equally enjoyed by all ratepayers. Thus, if the fire zone is larger than 8 kilometres in radius (assuming the hall in the centre), the residents outside of the 8-kilometre zone may not enjoy the cost savings received by those residents who live within the zone.

FUS Methodology

Overall Ratings Weighting: The FUS ratings are weighted against the following four areas of assessment:⁸⁴

- Fire Department: 40%
- Water Supply: 30%
- Fire Safety Control: 20%
- Fire Service Communications: 10%.

The assessment also involves a consideration of the principal fire risks covered by the subject department, including determination of the required fire flows (i.e., water flow requirements for the particular hazards and risks).

The fire department assessment includes a consideration of apparatus, equipment, staffing, training, operations and administration, and the location/distribution of fire halls and fire companies. In this segment of its review, FUS analyzes the effectiveness of the fire department's ability to extinguish fires in all parts of its fire protection area. More recent (post-2013) reviews have 19 separate factors which are assessed in this category.

Part of that assessment includes a review of the apparatus in use and its suitability for the subject department's fire risks. In general, FUS sets 20 years as the maximum age for front-line use of apparatus by small-medium sized communities. It also has requirements for certain apparatus types (e.g., aerial devices) depending on its assessment of the community's fire

⁸³ The amount of savings can also vary with the particular type of industry or commercial undertaking. See the more detailed discussion of PFPC ratings below. The table gives the average of all savings, across all industry types.

⁸⁴ This information is based on various FUS reviews we have examined in work for other clients

risks.⁸⁵ The age of apparatus can be extended (generally to 25 years), but only by application to FUS and by meeting annual certification requirements.

The “Water Supply” section looks at the hydrant system (if present), and considers issues such as water flow, supply reliability and system redundancy, based on criteria set out in its “Water Supply for Public Fire Protection”.⁸⁶ There are 15 factors which are assessed in this category. Where no hydrant system is present or where the hydrant system only covers a portion of the fire protection area, FUS then looks at the ability of the fire department to access, load, transport and unload water against the risks faced in the non-hydrant protected area. In such cases, the assessment is usually considered as part of the “Fire Department” analysis.

The “Fire Safety Control” category covers fire prevention programs/public education, fire inspections and building/fire code and bylaw enforcement. There are seven factors which are assessed within this category. In general, FUS is looking at whether local government is making effective use of these tools in managing the level of fire risk throughout the fire protection area (e.g., inspections, code enforcement, fire prevention programs, smoke alarm programs, etc.).

The “Fire Service Communications” category involves an assessment of dispatch services, paging systems and radio communications. There are five factors which are assessed within this category.

Ratings System. As noted above, FUS reviews involve two entirely separate rating systems – one for residential properties (DPG) and one for commercial/multi-family properties (PFPC). The DPG rating is calculated on a five-point numerical scale, whereas the PFPC rating is based on a 10-point scale. In both cases, a “1” is the highest achievable rating. In simplest terms, the goal of an FUS review is to provide insurance companies with a grading of fire protection services provided across a particular fire protection area.

Insurance companies use the grading rate provided by the FUS as one of a number of factors in determining local fire protection insurance rates. It should be emphasized that the system is quite fluid, and individual insurers can and will set rates based on considerations other than the FUS ratings (either higher or lower, depending on the insurer’s perception of actual risk, competitive concerns and other factors).⁸⁷ It is the responsibility of individual insurance companies to determine what weight they give the FUS grading when determining insurance rates.

⁸⁵ FUS recommends an aerial device once a community has a water flow requirement that is calculated to exceed 3,300 Imperial gallons per minute or where there are five or more buildings in the community which exceed 3 stories (10.7 metres) in height.

⁸⁶ FUS, “Water Supply for Public Fire Protection” (1999), which is available at: <http://www.scm-rms.ca/docs/Fire%20Underwriters%20Survey%20-%201999%20Water%20Supply%20for%20Public%20Fire%20Protection.pdf> accessed 26 July 2017.

⁸⁷ See a list of other factors on the Fire Underwriters Survey website, “How the PFPC affects individual insurance policies” at http://www.fireunderwriters.ca/pfpc_e.asp, accessed 26 July 2017.

DPG Rating. For residential properties, the rating system is graded on a scale from 1 – 5 where “1” is best possible rating. The rating of “3” is split into two subcategories where “3A” indicates that there is an approved hydrant or water supply system, and “3B” indicates that the department relies on mobile water supplies. From the insurance industry’s perspective, the ratings for residential homeowners are generally treated as follows:

DPG Rating	Insurance Status	Comment
5	Unprotected	No savings on insurance from having a fire department.
4	Semi-protected	Some savings on insurance likely will be enjoyed; in some regions, this rating and “3B” are treated as essentially equivalent.
3B	Semi-protected	This is usually the rating level at which significant cost savings on insurance are enjoyed. This is usually the highest rating available in areas which are not hydrant-protected.
3A; 3B(S) ⁸⁸	Protected	Progressively greater savings on insurance. Fully protected status typically means a savings of 50-60+% on insurance costs.
2	Protected	
1	Protected	

Dwelling Protection Grade Ratings

In general, FUS estimates that a community which achieves fully protected status can enjoy savings on insurance of up to 60% (or more) versus communities which are “unprotected”.⁸⁹ By way of example, in a recent fire master plan we worked on, two of the members of council to whom we delivered the report exemplified the difference that the FUS rating makes. In that instance, the fire department’s coverage zone was greater than eight kilometres, so residents outside of the eight kilometre zone did not receive the benefit of a reduced insurance rate. One councilor was paying more than \$3000 annually for fire insurance, while the other was paying less than \$1000 – in relation to properties that the two agreed were otherwise broadly similar.⁹⁰

⁸⁸ A rating of 3B(S) is an FUS accreditation for tanker shuttle capability, where a department is able to demonstrate its ability to maintain a specified water flow for a stipulated period of time, using tanker units. It applies to areas which are not hydrant-protected, and must be periodically renewed. This specialty rating is treated by most insurers as being the equivalent of a “DPG 3A” (fully protected) rating.

⁸⁹ This estimate is based on statements in various reviews conducted by the FUS, including for the Kootenay Boundary Regional Fire Service (2008) and the Sasamat Volunteer Fire Department (2010).

⁹⁰ The example also illustrates a problem where the financial benefits of having a fire department are not equally enjoyed by all taxpayers.

There are some fundamental location and distance requirements for an area to receive a protected or semi-protected rating:

- residents must live within eight kilometres by road of a fire hall (i.e., the measurement is based on distance travelled on the existing road network, not in a straight line from the fire hall); and
- for hydrant protected areas, the residence must be within 300 metres of a fire hydrant (or else the residence is classed based on the community's "non-hydrant protected" rating).⁹¹

Properties which are more than eight kilometres by road from a fire hall are treated as DPG 5 (unprotected).

PFPC Rating. The PFPC rating, which is determined at the same time as the DPG rating, is based on similar factors. The impact of an improved classification varies with the industry – higher risk industries enjoy greater savings at certain levels – for example, as the PFPC rating improves from 8 to 7.⁹² In the context of other work we have undertaken, we have reviewed information from FUS which suggests that for each level of improvement in the PFPC classification, the average commercial insurance cost for a typical area will drop by approximately 4 – 15%, depending on which level of the scale one is on (see chart above).

The following factors are integrated into the PFPC assessment:⁹³

1. Fire Risk, including analysis of required fire flows (i.e., the amount of water a department needs to be able to put on a fire) for individual buildings, building groups and zones of similar risk (Fire Flow Demand Zones) of the community. From this fire risk assessment, the Fire Underwriters determine the areas “Basic Fire Flow” requirement (the “BFF”), which is the amount of water that FUS determines the particular department must be able to pump to meet the majority of risks within its service area. The BFF is a critical calculation: it drives a number of the other assessment factors, including apparatus requirements, response levels, staffing and other equipment;
2. Fire Department, including apparatus, equipment, staffing, training, operations and geographic distribution of fire companies;

⁹¹ This distance can be extended to 600 metres if a department is certified by FUS as capable of “large diameter hose-lay”. See: FUS, *Accreditation of Alternate Water Supplies for Public Fire Protection* (December 2010), at <http://www.fireunderwriters.ca/doc/FUSBulletin-2010.12.10-AlternativeWaterSupplyAccreditation.pdf>, accessed on 27 July 2017.

⁹² Based on other FUS reviews, where for one department’s area, industry classified as “Manufacturing (Wood)”, showed a 17% insurance cost saving when moving from a PFPC 8 to PFPC 7, which contrasted with only 3 – 4% savings enjoyed by less risky undertakings.

⁹³ From: Fire Underwriters Survey website, “How the PFPC grading system works”, at http://www.fireunderwriters.ca/pfpc_e.asp, accessed on 27 July 2017.

3. Water Supply system, including source to distribution analysis, redundancy factors, condition and maintenance of various components, and storage volume;
4. Fire Prevention and Fire Safety Control programs including public education, codes/bylaws implementation and use of codes/bylaws in managing the level of fire risk throughout communities; and
5. Emergency Communication systems, including telephone systems, telephone lines, staffing, and dispatching systems.

The PFPC rating is essentially a benchmarking against various standards or requirements in each category and in relation to other communities.

For a commercial property, the application of the rating system depends on the distance from the fire hall and, in hydrant protected areas, distance from a fire hydrant. This can result in “split ratings” for a fire protection area. The FUS describes split ratings as follows: ⁹⁴

"In many communities, FUS develops a split classification (for example, 5/9). Generally, the first class, (Class 5 in the example) applies to properties insured under Commercial Lines within five road kilometres of a fire station and within 150 metres of a fire hydrant. The second class (Class 9 in the example) applies to properties insured under Commercial Lines within five road kilometres of a fire station but beyond 150 metres of a hydrant. FUS assigns Class 10 to properties insured under Commercial Lines that are located beyond five road kilometres from the responding fire station."

It should be noted that newer FUS reviews, in addition to introducing more detailed ratings and some new concepts,⁹⁵ are increasingly focusing on fire prevention, fire education and the importance of bylaws which support good fire protection practices (e.g., sprinklering requirements, a well-considered fire inspection program, building and electrical code enforcement, etc.).

Before undertaking a formal FUS review, the Department involved needs to ensure that it fully understands how the ratings are determined. It needs to work closely with the Fire Underwriters to ensure that each element has been properly and thoroughly assessed.

We were provided with only one Fire Underwriters rating, for the service area covered by the South Green Lake Volunteer Fire Department. The rating for residential properties (DPG 3B) means that residents are receiving a significant saving on their insurance rates for single family residential properties.

⁹⁴ From: Fire Underwriters Survey website, “Split Classifications”, at: http://www.fireunderwriters.ca/pfpc_e.asp, accessed on 26 March 2016.

⁹⁵ Some of the concepts introduced over the past several years include a “divergence penalty” – where either the water supply system or the fire department is markedly better than the other, the overall score will be reduced – and a general penalty for “special hazards analysis”, which seems to be a largely subjective assessment of risks from natural or environmental factors (e.g., earthquake, wildfire and weather).

Summary: The principal benefit of having an effective, well-equipped and well-trained fire department is that it will materially improve the life safety of residents in its fire protection area. Indeed, we would stress that the life-safety issues are the principal ones to focus on, when examining communities examine the benefits and weigh the costs of investing in their fire services. From a financial perspective, however, it also is critical to understand that a fire department which is well rated by the Fire Underwriters will likely result in reduced insurance costs for both residential and commercial property owners. The collective savings on insurance very often more than cover the cost of maintaining the fire department – particularly where the service is provided by a volunteer or composite department. Therefore, there is a good business case for investing in the fire department to maintain and, potentially, to improve a service area's fire insurance rating.

Recommendations and Priorities

Priority	Action
Critical	Immediate. Some critical matters may require that a department, in the interim, review and implement measures to protect members or limit risk until the matter is addressed.
High	Within 12 months. In respect of any recommendations relating to operations and safety, a department should review its current processes and implement measures to protect its members or limit risk, until the matter is addressed.
Moderate	Within 24 months.
Routine	Build into or consider within overall Department / AHJ planning / within 36 months, depending on the nature of the recommendation.

Section and Recommendations		Priority
Organizational and Legal Structure of the Fire Services		
1	<p><u>Applicable to all Local Government Departments</u> (including the Municipal Departments, RD Departments and the SBVFD) - Review and update each establishment and operational bylaw (as applicable) to:</p> <ul style="list-style-type: none"> • address issues arising from statutory and regulatory changes, including: <ul style="list-style-type: none"> ○ the Playbook requirements (including training, Service Level policy, and records keeping obligations); and ○ the new <i>Fire Safety Act</i>, including: fire inspection regimes (for Municipal Departments); fire inspector and fire investigator appointments; new grants of powers to fire chiefs and local authorities; and related reporting obligations to the Office of the Fire Commissioner; • address the issues identified in the individual Department reports; • ensure that the bylaws provide appropriate powers and authorities to operate as outlined in this section of the Report and discussed in the individual Department reports. 	Moderate

Section and Recommendations		Priority
2	<p>Each “local authority” (which may or may not include the SBID and the TNRD), will need to ensure that it can provide trained inspectors and trained investigators as required by the new Fire Safety Act. There is a one-year transition period after the new act comes into force before the training and qualifications, which are to be prescribed by regulation, must be met. The SBID and TNRD will need to maintain a watching brief on the <i>Fire Safety Act</i> to see how the fire inspection and fire investigation obligation is potentially revised and what obligations they may have under the new statute.</p>	Moderate
3	<p>For the TNRD, create a single, operational powers bylaw applicable to the Departments under its authority. The Departments that would be covered by such bylaw would be subject to the recommendations below. When crafting the bylaw, the included Departments could be listed on a schedule, which then could be updated as required.</p> <p>The TNRD should also review its fire inspection bylaw, Bylaw 1994, against the new <i>Fire Safety Act</i> and consider expanding its applicability to other fire service areas under its authority.</p>	High Moderate
4	<p>In relation to the TNRD and the Society Departments, we recommend that the primary responsibility for delivery of fire and emergency response services be transferred to the TNRD, and the delivery of such services in the “financial contribution service areas” be authorized. This will require:</p> <ul style="list-style-type: none"> • revising the establishment bylaws to authorize the TNRD to provide such fire and emergency response services; • making the common operational bylaw (see recommendation above) applicable to these Departments; • updating and revising the Funding Agreements so that they properly reflect the new structure. An agreement may still be required with the individual Societies, if they are to receive funding for providing ongoing support services, even if they are not primarily responsible for emergency response services; and • undertake the additional review and consultation contained in the next recommendation. 	Critical

Section and Recommendations		Priority
5	<p>In relation to the TNRD taking on responsibility for fire protection and emergency service delivery from the Society Fire Departments:</p> <ul style="list-style-type: none"> the TNRD will need to conduct a more detailed review of the issues involved in such a transfer of responsibilities, including: budget levels, status of equipment and facilities (which are mostly owned already by the TNRD), staffing levels and turnover rates, and Fire Underwriters' ratings; and a transition approach will need to be developed, including, for each relevant Society Department, revising the service area bylaws and having the affected Society Department members join the renewed Department. In light of interest expressed that several of the Society Departments would prefer to transfer responsibility for fire and emergency response services to the TNRD, a discussion of a potential transition framework within which to consider such requests is included in Appendix 1. 	High
Mutual Aid Agreements		
6	The Local Governments, in cooperation with the Societies, should consider developing a more comprehensive mutual aid structure across the Regional District, to ensure that resources can be activated when required to address major incidents.	Moderate
7	Each participating Department's dispatch provider should be provided with a copy of any existing (or new) mutual aid agreements and kept apprised of the protocols relating to assistance call outs.	Moderate
Occupational Health and Safety		
8	Each AHJ review with its Department or Departments the current state of its OH&S program and related appointment of a joint committee or worker representative. The new rules established under B.C. Reg. 312/2016 related to joint committees and worker representatives need to be taken into account when so doing.	High
9	The TNRD, in consultation with the RD Departments, consider creating a single joint committee for its Departments, and take the lead in managing the process and related records keeping.	Moderate

Section and Recommendations		Priority
10	Depending on how the underlying bylaw and contractual structures for the Society Departments are revised, the TNRD should consider either: (a) including some or all of the Society Departments as participants in a shared joint committee (subject to any necessary approvals from WorkSafe BC); or (b) requiring that each Society report back on its compliance with its OH&S obligations. If the Society Departments become RD Departments, they should participate in the single joint committee structure recommended above.	Moderate
Fire Department Records		
11	Proper and thorough records keeping is essential for the Departments and their respective AHJs. While several of the Departments (notably, Clearwater and Blackpool) are maintaining good training and other records, most Departments are finding this a major challenge. There are clear advantages to moving to using electronic records management systems, though the selection, set up and training involved would best be managed collaboratively among the AHJs. If a standardized system can be adopted, the costs can be shared. This is a matter which the AHJs should review with their respective Departments and each other.	Moderate
Operational Guidelines		
12	The AHJs, in cooperation with the Departments, ensure that each Department has a complete set of OGs as needed to carry out their emergency response operations and as required by WorkSafe BC and the Playbook.	High
Apparatus and Equipment		
13	That the AHJs review with the Departments their individual equipment testing procedures and record keeping procedures, and compare them to the respective NFPA and WorkSafe BC requirements. Any shortfalls should be addressed immediately.	High
Training Standards and Requirements		
14	Where the relevant AHJ has not yet formally set a Service Level for its Department or Departments, it should do so as a matter of priority.	Critical

Section and Recommendations		Priority
15	As the Playbook is not a complete training system, each AHJ should consider what standards apply to training for functions not yet covered. We recommend that each AHJ direct its Department or Department to use NFPA standards for training in relation to functions not specifically addressed by the Playbook.	High
Volunteer Recruitment and Retention		
16	The Departments, in cooperation with the TNRD, Societies, Municipalities and the Improvement District, should review the compensation received by volunteers for attendance at practices and when responding to emergency incidents to ensure it is fair; and that consideration be given to developing a policy for reimbursement of members' out-of-pocket expenses, where this is financially feasible.	Moderate
17	The Departments and the TNRD, Societies, Municipalities and the Improvement District, should develop a comprehensive approach to recruitment and retention including developing an effective information campaign for volunteers, reviewing the idea of volunteer benefits and implementing a duty crew system.	Moderate
18	The TNRD, Societies, Municipalities and the Improvement District, should develop and implement a more effective recognition program for its volunteers. It also should develop a recognition program for employers, and in particular for those employers which permit their employees to respond to day-time call-outs.	Moderate
19	The Departments and the TNRD, Societies, Municipalities and the Improvement District, should review other WEPs in the province, and consider developing and implementing similar programs. A WEP would enhance day-time responses and improve the availability of emergency responders, at a far lower cost than hiring career firefighters.	Routine
20	Those Departments not already doing so, should consider using part-time administrative assistance or volunteer support personnel at the fire hall, to assist with administrative, record keeping and data entry duties.	Moderate
21	The Departments in consultation with the TNRD, Societies, Municipalities and the Improvement District, should consider developing a career pre-employment training program.	Routine

Appendix 1: Potential Transition Framework for Transfer of Society Departments to TNRD

Several of the Society Departments have indicated that they would prefer to transfer responsibility for fire and emergency response services to the TNRD. Therefore, it would be timely and expedient for the TNRD to develop a fire service transition policy framework which would establish the conditions under which the TNRD would assume certain fundamental responsibilities from the Societies, and the process to be followed to obtain approval from the TNRD Board and (if required) service area residents. This could begin with a statement from the relevant Society on its expectations as well as the objectives of their taxpayers on such matters as level of service and types of services, or impact on insurance costs, etc.

The TNRD could develop a policy outlining a series of criteria and conditions which must be satisfied in order to make a positive recommendation to the Board to take over the particular Society Department, provided it meets minimum defined sustainability standards.

The following is a broad policy framework which could be considered for the purposes:

1. TNRD receiving a written expression of interest for transition from a Society, including what role (if any) the Society would expect to play post-transfer.
2. A statement from the Society confirming there had been an initial public engagement process and input from affected residents addressing broad community expectations which may be used to determine the minimum requirement to re-establish a “compliant” department. The TNRD may wish to participate in that process. The broad summary of expectations, supported by the majority of residents, could include such factors as:
 - (a) Service Level to be provided by the Department (i.e., Exterior, Interior or Full Service)
 - (b) Range of services provided in addition to fire suppression and wildland fire response, such as FMR, MVA, hazmat, burning complaints, etc.
 - (c) Whether a positive impact on existing insurance rates is desired or expected from the operation of the particular Department.
3. Once this expression of interest is received, the TNRD would undertake a “sustainability” assessment to evaluate the extent to which the Department currently meets the minimum criteria and, if not, the specific deficiencies or gaps which must be bridged. These could include: total staffing, average turnout response, fire hall, water source(s), size of service area, condition and functionality of hall, state, nature and condition of apparatus and equipment. It should be noted that the TNRD, in many cases, already is the owner of the facilities and apparatus.
4. The completed sustainability assessment would identify existing gaps, and the enhancements or measures necessary to bring the Department to a defined, compliant status, taking into account the expectations of the residents and all of the legislative requirements as well as criteria established by the Fire Underwriters (the latter, however, should not be determinative).
5. The next step would be to undertake a financial gap analysis to determine the cost related to: bringing the hall, apparatus and equipment up to minimum standards; and

developing an annual operating and capital budget based on all costs factors such as members' honoraria, training, operational costs, administrative support costs, and capital replacement. In terms of compensation, the review would need to canvass the views of the members and officers in the context of the overall size of the tax base of the service area.

6. The completed analysis and report would then be provided to the Society for review and presentation for a public engagement and preliminary approval process.
7. Once approved by the service area residents, with a commitment to pay, a recommendation would be made to the TNRD Board, and if consent was given, the Society and TNRD staff could begin to implement the transitional tasks which may including preparing appropriate establishment (and borrowing if required) bylaws for initial enhancements.

Appendix 2: Fire Department Records

This Appendix provides a general outline of the categories of records fire departments should, and, in many situations, are required, to maintain. This outline should not be treated as exhaustive nor is it intended that the reader solely rely on the information contained below. It is strongly recommended that each AHJ and each Department review the requirements contained in Part 31 (Firefighting) of the OH&S Regulation under the WCA and the appropriate NFPA and ULC standards for specific recommendations and requirements on maintenance of records.

Under section 31.9 of the OH&S Regulations, a fire department must keep the test and inspection records required by WorkSafe BC at the workplace for inspection by an officer or the joint committee or worker health and safety representative, as applicable.

The nature and general contents of the records that must be kept are specified in section 4.9 of the OH&S Regulation, which provides as follows:

4.9 Inspection and maintenance records

- (1) If this Regulation requires a machine or piece of equipment to have an inspection and maintenance record, then an effective written or other permanent recording system or log must be immediately available to the equipment operator and to any other person involved with inspection and maintenance of the equipment.
- (2) The recording system must
 - (a) identify the make, model and serial number of the equipment, and the name and address of the current owner,
 - (b) contain an entry on each shift, signed by the operator of the machine or equipment, reporting the result of each start of shift inspection and safety check, and any observed defect, operating difficulty or need for maintenance occurring on the shift, and
 - (c) contain an entry signed by the person responsible for any test, inspection, modification, repair or maintenance performed on the equipment, summarizing the work done, indicating the status of the equipment or machine for further use, and if appropriate, noting where a detailed record of the test, inspection, modification, repair or maintenance can be obtained.
- (3) If this Regulation requires a machine or piece of equipment to have inspection and maintenance records, then detailed reports of inspection, maintenance, repairs and modifications must be kept for the duration of the service life of the machine or equipment and must be reasonably available to the workplace and made available, upon request, to the operator and to anyone else involved in the operation, inspection, testing or maintenance of the equipment.

1. Apparatus Maintenance

Fire department apparatus must be maintained by appropriately certified personnel. Under NFPA 1911, vehicles should be maintained by individuals who are certified as emergency vehicle technicians. Records need to be maintained on all vehicle maintenance and repairs, as well as any failures in any part of the apparatus. The records required include:

- Annual pump testing
- Weekly apparatus checks
- Apparatus maintenance and repairs
- Apparatus equipment failures.

NFPA 1911 – Inspection, Maintenance, Testing and Retirement of In-Service Automotive Fire Apparatus, 2017 Edition.

OH&S Regulation, Part 17, ss. 17.01 – 17.9 (which deal with “Worker Transportation Vehicles”, and apply to all vehicles designed to carry 3 or more workers)

OH&S Regulation Part 31, s. 31.27 – 31.31 contains provisions governing vehicles more generally (e.g., seating, enclosed crew cabs, equipment storage, etc.)

2. Driver Training Records

Driver training is critical to the safety of both department members and the public. Departments are required to ensure that members operating apparatus have all appropriate licensing (including, where required, air brake certification). Records required to be maintained include the following:

- Initial driver training and certification
- Annual driving training records
- Yearly driver abstract
- Written operational guidelines relating to the operation of firefighting vehicles during emergency and non-emergency travel.

NFPA 1451 – Standard for a Fire Service Vehicle Operations Training Program, 2013 Edition.

OH&S Regulations, section 31.5(e).

3. Member Training Records (individual records)

Maintenance of appropriate training records is crucial for fire departments. Records should be stored in a manner that enables the department to readily confirm the specific training levels of each individual member. Back-up copies of the records should also be maintained off-site.

The records for specific areas of training should be maintained for each individual member and should show:

- Levels of recruit and probationary training achieved and when accomplished;
- Training sessions attendance (date and hours involved);
- Additional yearly formal training (including records of weekly and special training sessions and all certifications attained); and
- Ongoing yearly maintenance training in the various areas (to retain the levels of knowledge and skills achieved).

One of the issues that frequently arises is that when skills are taught or refreshed during weekly practice sessions, the Departments do not use formal assessment and evaluation processes. As a result, the records often show only that a member attended a particular session, and not that he or she was qualified in the particular skill or JPR being taught. Formal emulations should accompany all training and the results duly recorded on an individual basis.

Where training is being provided in-house (which is expressly contemplated by the Playbook), the person providing the training must be properly qualified in the skill or skills being taught. The trainer's qualifications, therefore, need to be readily provable from his or her individual training records.

NFPA 1001 – Standard for Firefighter Professional Qualifications, 2013 Edition

Equipment Maintenance and Repair (General)

Playbook (see s. 3, p. 4/20; s. 6, pp. 6 -7/20)

OH&S Regulation, ss. 3.23 – 3.25 – Young or new worker orientation and training

4. Ground Ladder Testing Records

Ground ladder failures during fire-ground activities, while relatively rare, have the potential to cause major injuries to and possibly result in the deaths of both firefighting personnel and rescue victims during emergency operations. Unlike standard industrial ladders, fire service ground ladder must be capable of holding several people, including rescue personnel (with full PPE) and victims, from elevations of two or more stories.

Individual records and test results must be maintained for all ground ladders in use by a department. These records include:

- Annual inspection and testing
- Regular cleaning and inspection

NFPA 1932 – Standard on the Use, Maintenance, and Service Testing of In-Service Fire Department Ground Ladders, 2015 Edition.

OH&S Regulations, section 31.37 (Ground Ladders).

5. Hose Testing Records

Although an onerous task, annual hose testing is highly recommended. In addition, individual lengths of hose should be tracked throughout their in-service life. Fire hose failure during emergency incidents is greatly reduced through annual testing. The ideal place for fire hose to fail is at the fire hall during testing. Records should include:

- Records for individual hoses including in-service date, damage and repairs
- Annual inspection and testing.

NFPA 1962 – Standard for the Inspection, Care, and Use of Fire Hose, Couplings, and Nozzles and the Service Testing of Fire Hose, 2013 Edition.

6. Self-Contained Breathing Apparatus (SCBA) and PASS⁹⁶ Devices

SCBA and PASS alarms are life critical safety devices for firefighters. WorkSafe BC requires that service and repair of SCBA units must be by qualified persons.

The following records need to be maintained:

- Annual SCBA pack testing
- Annual and weekly pass alarm testing
- Bottle hydrostatic testing in accordance with *CSA Standard CAN/CSA-B339-96, Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods*
- Regular inspections of all SCBA components. The inspection of compressed air cylinders must be conducted in accordance with *CSA Standard CAN/CSA-Z94.4-02, Selection, Use, and Care of Respirators*
- Fit testing is required: (a) before initial use of a respirator, (b) at least once a year, (c) whenever there is a change in respirator face piece, including the brand, model, and size, and (d) whenever changes to the user's physical condition could affect the respirator fit
- Appropriate medical certification showing fitness to use SCBA, where required (see OH&S Regulations, s. 31.20)
- Complete maintenance and repair records for each self-contained breathing apparatus and all air cylinders must be kept in accordance with the requirements of *CSA Standard CAN/CSA-Z94.4-02, Selection, Use, and Care of Respirators* (section 10.3.3.2.2-b to f, inclusive).

⁹⁶ Personal alert safety system – a device which sounds an alarm when a firefighter is down.

CSA Standard CAN/CSA-Z94.4-02, *Selection, Use, and Care of Respirators*

NFPA 1852 – Standard on Selection, Care and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA), 2013 Edition.

NFPA 1982 – Standards on Personal Alert Safety Systems, 2013 Edition.

OH&S Regulations, sections 31.19 to 31.26 (Respirators).

OH&S Regulations, section 31.18 (PASS alarms).

7. Personal Protective Equipment

Personal protective equipment includes turnout gear, helmets, hoods, boots, gloves and goggles. Aside from effective training, PPE is the most important tool a firefighter needs to do his/her job safely. Proper care of PPE, through regular inspection and cleaning, should be the first priority of all fire service personnel.

- The employer must have operational guidelines governing the inspection of protective clothing and equipment at regular intervals
- The equipment should be identifiable
- Procedures for cleaning and drying clothing must be in accordance with the manufacturer's instructions
- Records of date of purchase, assignment and date for replacement must be maintained
- Records of regular cleaning, inspection and repair of all personal protective equipment should be maintained.
- Turnout gear older than 10 years must be replaced.

NFPA 1851 – Standard on the Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting (2013 Edition)

NFPA 1971 - Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting (2013 Edition)

OH&S Regulations, Part 8 – Personal Protective Clothing and Equipment; see, in particular, s. 8.3.

OH&S Regulations, Part 31 – Personal Protective Clothing and Equipment; see in particular ss. 31.10 – 31.16. Note that s. 31.11, dealing with maintenance, includes a specific operational guideline requirement.

8. Rescue Ropes

Rescue ropes are defined as “designated rescue ropes” used to lift, carry, support rescue personnel and rescue victims during emergency incidents such as high angle, swift water rescue, confined space rescue etc. Rescue ropes are not standard general-purpose fire service ropes used during fire ground or emergency incidents to lift tools, secure equipment or tow vehicles. The following records must be maintained for all dedicated rescue ropes

- Records of date of purchase
- Dates of each use, damage, cleaning and repair.

NFPA 1983 – Standard on Life Safety Rope and Equipment for Emergency Services, 2017 Edition.

OH&S Regulations, section 31.17.

Appendix 3: Workload, Budget Impacts and Financial Sustainability of Small Fire Departments

Overview

The 11 volunteer or paid-on-call Departments included in this review, as noted in the Major Issues section of this report, are impacted by the challenges that were identified in that section. These issues include both workload for the officers and members, as well as the minimum budget required to meet on-going operating, capital and administrative needs of the Departments.

The legislative and other requirements (such as those set by the Fire Underwriters) that must be met are broadly similar among the departments in the review as well as the basic requirements to be met and be considered compliant. The review has identified the need for enhancements for virtually all the departments, although the specific nature of the enhancements needed vary from department to department.

The measures required to be implemented to achieve compliance include: bylaw amendments, policy and OG revisions/updates, training program updates, improved records keeping, improved equipment testing and maintenance, and potential capital upgrades to buildings, apparatus and equipment. In addition to a significant level of administrative commitment from the TNRD administration and the RD Departments and Society Departments, there will be up front investment required to achieve the initial objectives, as well as an on-going budget impact to maintain compliance and ensure the sustainability of each Department.

Administrative Workload

The sustainability of small volunteer or paid-on-call departments is being challenged not only by rapidly increasing legislative requirements and related costs but also by the increasing administrative demands which accompany these requirements. Each of the departments, similar to any other unit of a local government, is required to undertake a wide variety of administrative tasks in addition to, or as part of fulfilling, their operational fire duties. Many of these tasks are related to compliance with legislation for agencies such as the Canadian Revenue Agency, WorkSafe BC and the OFC. Other administrative responsibilities are driven by risk management and health and safety considerations or simply are required for the efficient and effective operation of the Department in the context of the Regional District corporate structure. These tasks or responsibilities include, but are not limited to, the following:

- personnel administration including recruitment, retention and discipline, etc.;
- payroll administration;
- budgeting;
- records management for training, preplanning, fire response, inspections/ investigations, equipment maintenance, repair and refurbishment, etc.;

- preparation of both routine and topic specific reports;
- purchasing/procurement;
- policy and procedure development and updating (e.g., operating guidelines, health and safety procedures, etc.);
- strategic planning.

The administrative workload has increased materially in the past decade or so, together with community and organizational expectations of department members. This is particularly problematic for volunteer or paid-on-call departments such as the ones reviewed in this report, as much of the administrative work is expected to be undertaken by the volunteers. Finding the capacity and expertise to undertake the wide range of administrative and clerical duties is challenging, and demands an extraordinary commitment from members who joined a fire department to be trained for, and respond to fires and emergencies, not to do administrative work.

While the TNRD currently provides significant administrative support to its directly operated Departments, there is a need to investigate further opportunities to achieve efficiencies and create economies of scale. As suggested above, converting the existing Society Departments to either directly-operated RD Departments or authorized service departments, would permit the sharing of administrative costs across a larger tax base. If done *pro rata* to the tax base, the impact on smaller departments will be mitigated, while ensuring that they are provided with administrative support and oversight. Additionally, consideration could be given to streamlining procurement processes by standardizing the apparatus and equipment required through consultation and collaboration with the area Fire Chiefs. The other AHJs – the Municipalities and the SBID – may also wish to collaborate in the creation and maintenance of a uniform set of OGs, and to participate in standardized procurement processes.

Budget Impacts and Financial Sustainability Challenges

There will be financial impact on all Departments arising from the need to comply with the Playbook and the other factors discussed in this report. However, for some departments this impact will be material and result in a substantial budget increases over historical levels – the actual impact will be determined following the AHJs receipt of this review and their respective response to the recommendations contained therein. There is a relatively wide disparity among Departments in terms of their community profiles (including assessment base) and departmental approach to budgeting and cost control and cost drivers

For illustration, below is a 2016 comparison of TNRD and Society departments using BC Assessment information.

Department	Levy Basis	Total Requisition	Net tax value	Rate / 1,000	Total properties	Average resident
Blackpool	L and I	\$140,780	\$58,993,890	2.389	394	\$238.25
Pritchard	L and I	\$146,007	\$134,501,829	1.086	735	\$240.96
Vavenby	L and I	\$119,128	\$42,948,568	2.774	316	\$202.80
Little Fort	L and I	\$19,996	\$40,987,725	0.488	222	\$38.12
Loon Lake	Parcel tax	\$22,660	\$95,134,388	n/a	322	\$70.37
McLure	L and I	\$39,133	\$51,800,483	0.756	222	\$171.55
South Green Lake	I only	\$58,275	\$51,038,100	1.142	424	\$138.83
South Green Lake	Parcel Tax	\$20,000	\$128,224,722	n/a	421	\$47.51
Tobiano	L and I	\$257,500	\$80,029,268	3.125	274	\$893.82

As can be seen from the above table, tax requisitions for 2016 range from a low of \$19,996 in Little Fort to a high of \$257,500 in Tobiano (a significant proportion of the taxes raised in Tobiano relates to payments for the water infrastructure). In terms of total tax impact to receive fire protection for a “Class 1” residential property, based on 2016 data it ranges from a low of \$38.12 in Little Fort to a high of \$893.82 in Tobiano.

The review has identified a number of enhancements each Department will need to make to achieve compliance with the Playbook, OH&S requirements and new *Fire Safety Act*. This work to achieve compliance will have associated costs. As a frame of reference, it has been estimated that to achieve and maintain Playbook compliance for training that the annual cost per member for training (which may vary depending on specific Service Level and services provided) ranges from \$1,000 to \$2,000 annually, particularly if members are receiving annual live fire training.

Training costs alone, therefore, will be a significant impact: some Departments reported spending only \$1,500 annually on this category. Based on an analysis of the minimum training required to achieve Playbook compliance, the annual estimated training costs would be approximately \$1000 per member. For Little Fort, with 11 members, this enhancement alone would result in an increase of \$10,000 on an annual tax requisition of approximately \$20,000 or 50%. The increased training costs coupled with other recommended enhancements: capital, operating and administrative, all Departments will be financially challenged to support their respective sustainability objectives.

In addition to the costs of increased training, the impacts of the meeting minimum requirements for facilities, apparatus and equipment, (as detailed by the Fire Underwriters) highlight the need for more vigorous long range financial planning for the timely replacement of assets. While a number of the Departments have some reserves, it would be appropriate to analyze these reserves in detail, to ensure that the reserves match the life expectancy of all assets and an appropriate replacement schedule be developed. Ideally, once this is completed, an annual transfer to a reserve fund for their replacement would be made to minimize the need for periodic spikes in a department's budget, and more properly reflect the actual annual costs of operating a department.

Funding Challenges

The financial challenge for single purpose societies, improvement districts and regional district local service areas is somewhat more difficult to mitigate than is the case for similar size municipal departments facing large cost increases. The challenges for regional districts and others are not insurmountable, but it will require careful consideration of a number of factors and a focus on more collaboration, cooperation, consolidation, looking for economies of scale, administrative efficiencies and potentially standardization to meet the new financial and legislative challenges.

To provide some additional background for consideration of challenges ahead, it is worth a reminder of the regional districts' governance framework and the extent to which they are different from municipalities.

Regional districts are governed by provincial legislation, primarily under the provisions of the *Community Charter* (B.C.) and *Local Government Act* (B.C.). The purposes of regional districts are broadly threefold:

- They are the regional service bodies responsible for providing legislated, and other important regional services to, and undertaking activities on behalf of their entire regions (i.e., including all member municipalities);
- They are the inter-jurisdictional service bodies that provide local government sub-regional services to different combinations of member municipalities and electoral areas; and
- They are the local governments for their (unincorporated) electoral areas, responsible for providing basic local services such as community planning, building, fire protection, etc., generally at the direct request of a group of residents in the service area.

There are also significant differences between regional districts and municipalities in terms of legislative authority. Municipalities have significantly broader authority. Regional districts have complex voting rules and far more constraints to starting new services or amending existing ones, which may include but not be limited to:

- conducting feasibility studies;

- preparing and adopting service establishment bylaws;
- obtaining Ministry approval for service establishment bylaws or amendments thereto;
- obtaining consent of participant residents possibly through referendum or an alternate approval process;
- obtaining the approval of the regional district board for all bylaws, notwithstanding they may involve only one or two service participants out of the all of the participant members of the particular regional district; and
- requiring approval of the regional district board for the adoption of policies, notwithstanding they may involve only one or two service participants.

In addition, unlike municipalities, each individual regional district service (and respective local service area) must be funded independently through taxation from the benefitting area only and funds may not be transferred from one local service to another.

Municipalities, on the other hand, provide a wide range of services which are collectively funded from their general revenue. Therefore, with a larger overall budget they are more able, in effect, to “absorb, and thereby mitigate the tax increase impacts of an individual department’s budget increase as part of the overall municipal budget. Two other aspects of the difference between municipalities and the other fire department AHJs are:

- the ability of municipalities, within their general fund, to access a variety of revenue sources which are not readily available to the society, regional district or improvement district departments.
- the ability of municipalities to readily take advantage of administrative economies of scale, while the regional district has a number of legislative challenges to achieve similar objectives. Notwithstanding the challenges facing and there are many ways of finding economies of scale or mitigating individual department financial impacts which may include but not be limited to consideration of expanding or merging Local Service Areas

Summary

There are both increasing and new expectations which are challenging the sustainability of small fire departments. Expecting volunteers to continue to meet the increasing workload demands and expectations is having a critical impact on sustainability of small departments. Concurrently legislative and other factors are increasing all costs of running a department which includes facilities, apparatus, equipment, and the cost of supplying water. Fire protection is a discretionary service and ultimately it will be up to ratepayers of each jurisdiction to determine whether they have either the ability to pay or the willingness to pay.

Appendix 4: New OH&S Regulation on Joint Committees

The OH&S Regulation was updated by BC Reg. 312/2016, which took effect as of 3 April 2017. This regulation impacts the operation of joint committees and worker representative systems. It can be accessed here: http://www.bclaws.ca/civix/document/id/lc/bcgaz2/v59n24_312-2016

The complete text has been provided below.

B.C. Reg. 312/2016, deposited December 15, 2016, under the **WORKERS COMPENSATION ACT** [section 225 (1)]. Resolution of the Workers' Compensation Board, dated December 14, 2016.

Appendix A

THE BOARD OF DIRECTORS RESOLVES THAT:

1 The Occupational Health and Safety Regulation, B.C. Reg. 296/97, is amended by adding the following after section 3.25:

Joint Health and Safety Committees

Evaluation of joint committees

- 3.26** (1) In this section, a reference to a joint committee does not include a joint committee established and maintained under section 126 of the *Workers Compensation Act*, if
- (a) an order under section 126 (1) of the *Workers Compensation Act* respecting the joint committee provides for a variation as set out in subsection (2) (b) of that section of that Act, and
 - (b) the variation is in regards to evaluating the joint committee.
- (2) An employer must ensure that, with respect to each of the employer's joint committees, a written evaluation is conducted annually by
- (a) the co-chairs of the joint committee or, with respect to each co-chair, the member or members of the joint committee designated by the co-chair, or
 - (b) the employer or a person retained by the employer.
- (3) The evaluation must contain, but is not limited to, the following information:
- (a) whether or not, throughout the period of time that is the subject of the evaluation,
 - (i) the joint committee met the membership requirements under section 127 (a) to (d) of the *Workers Compensation Act*,

- (ii) worker representatives on the joint committee were selected in accordance with section 128 of the *Workers Compensation Act*,
 - (iii) employer representatives on the joint committee were selected in accordance with section 129 of the *Workers Compensation Act*,
 - (iv) the joint committee fulfilled each of its duties and functions under section 130 of the *Workers Compensation Act*,
 - (v) the joint committee met regularly as required under section 131 (2) of the *Workers Compensation Act*,
 - (vi) the employer met the requirements under section 133 of the *Workers Compensation Act* in respect of the written recommendations sent to the employer by the joint committee with a written request for a response from the employer, if any,
 - (vii) each member of the joint committee received the time off from work the member was entitled to receive under section 134 of the *Workers Compensation Act*,
 - (viii) each member of the joint committee attended the occupational health and safety training courses the member was entitled to attend under section 135 of the *Workers Compensation Act*,
 - (ix) the employer provided to the joint committee the equipment, premises, clerical personnel and information the employer was required to provide under section 136 of the *Workers Compensation Act*,
 - (x) the joint committee prepared reports of its meetings and provided copies to the employer as required under section 137 (1) of the *Workers Compensation Act*,
 - (xi) the employer met the requirements of posting and keeping posted committee information as set out in section 138 of the *Workers Compensation Act*, and
 - (xii) each member of the joint committee received the instruction and training the employer was required to ensure was provided to the member under section 3.27 of this regulation;
- (b) an assessment of the effectiveness of the joint committee's rules of procedure as established under section 131 (1) of the *Workers Compensation Act*,
- (c) an assessment of the overall effectiveness of the joint committee.

- (4) If the employer or a person retained by the employer conducts the evaluation, the employer or person retained by the employer, as the case may be, must, as part of the evaluation, obtain and consider the input of the co-chairs of the joint committee or, with respect to each co-chair, the member or members of the joint committee designated by the co-chair, on the matters listed in subsection (3).
- (5) The employer and the joint committee must each provide to the other a copy of the evaluation if the other does not have a copy.
- (6) The joint committee must
 - (a) discuss the evaluation at the joint committee meeting immediately following
 - (i) receipt of the evaluation, if the employer or a person retained by the employer conducted the evaluation, or
 - (ii) the completion of the evaluation, if members of the joint committee conducted the evaluation, and
 - (b) ensure that the evaluation and a summary of the discussion referred to in paragraph (a) are included in the report of that meeting.

2 Section 1 comes into force on April 3, 2017.

Dated at Richmond, British Columbia, December 14, 2016.
By the Workers' Compensation Board
John Beckett, Chair, Board of Directors

APPENDIX B

THE BOARD OF DIRECTORS RESOLVES THAT:

1 The Occupational Health and Safety Regulation, B.C. Reg. 296/97, is amended by adding the following after section 3.26:

Minimum training requirements for new joint committee members or worker health and safety representatives

- 3.27** (1) In this section, a reference to a joint committee does not include a joint committee established and maintained under section 126 of the *Workers Compensation Act*, if
- (a) an order under section 126 (1) of the *Workers Compensation Act* respecting the joint committee provides for a variation as set out in subsection (2) (b) of that section of that Act, and
 - (b) the variation is in regards to providing instruction and training to the members of the joint committee.

- (2) The employer must ensure that each member of the employer's joint committees who was selected on or after April 3, 2017 to be a member receives, as soon as practicable but no more than 6 months after becoming a member, a total of at least 8 hours of instruction and training, as set out in subsection (4).
- (3) The employer must ensure that the worker health and safety representative at each of the employer's workplaces who was selected on or after April 3, 2017 to be a representative receives, as soon as practicable but no more than 6 months after becoming a representative, a total of at least 4 hours of instruction and training, as set out in subsection (5).
- (4) The instruction and training referred to in subsection (2) must include the following topics:
 - (a) the duties and functions of a joint committee under section 130 of the *Workers Compensation Act*,
 - (b) the rules of procedure of the joint committee as established under or set out in section 131 of the *Workers Compensation Act*,
 - (c) the requirements respecting investigations under sections 173 to 176 of the *Workers Compensation Act*,
 - (d) the requirements respecting inspections under sections 3.5, 3.7 and 3.8 of this regulation and how to make regular inspections under section 3.5 of this regulation;
 - (e) the requirements respecting refusal of unsafe work under section 3.12 of this regulation;
 - (f) the requirements respecting the evaluation of joint committees under section 3.26 of this regulation.
- (5) The instruction and training referred to in subsection (3) must include the topics described in subsection (4) (a), (c), (d) and (e).
- (6) Subsection (2) does not apply in respect of a person who is a member of a joint committee if
 - (a) 2 years or less before becoming a member of the joint committee, the person was a member of that joint committee or a different joint committee, and
 - (b) the person, as a member of the joint committee or a different joint committee as set out in paragraph (a), received at least 8 hours of instruction and training on the topics described in subsection (4).
- (7) Subsection (3) does not apply in respect of a person who is a worker health and safety representative at a workplace if

- (a) 2 years or less before becoming a worker health and safety representative at the workplace, the person was
 - (i) a member of a joint committee, or
 - (ii) a worker health and safety representative at that workplace or a different workplace, and
 - (b) the person, as a member of a joint committee, or as a worker health and safety representative at the workplace or a different workplace, as set out in paragraph (a), received at least 4 hours of instruction and training on the topics described in subsection (5).
- (8) The employer must ensure that a person who receives instruction and training as set out in subsection (2) or (3) receives a copy of the person's training record as soon as practicable after the training is completed.
- (9) The employer must, with respect to each person who receives instruction and training as set out in subsection (2) or (3), keep the person's training record until 2 years from the date the person ceases to be a member of the employer's joint committee or a worker health and safety representative, as applicable.
- (10) For greater certainty, the instruction and training required under subsection (2) or (3) of this section is not educational leave as set out in section 135 of the *Workers Compensation Act*.

2 Section 1 comes into force on April 3, 2017.

Dated at Richmond, British Columbia, December 14, 2016.

By the Workers' Compensation Board

John Beckett, Chair, Board of Directors

APPENDIX C

THE BOARD OF DIRECTORS RESOLVES THAT:

1 The Occupational Health and Safety Regulation, B.C. Reg. 296/97, is amended by adding the following after section 3.27:

Participation in Investigations

Participation by employer or representative of employer and worker representative

3.28 For the purposes of section 174 (1.1) (c) of the *Workers Compensation Act*, the following activities are prescribed:

- (a) assisting the persons carrying out the investigation with gathering information relating to the investigation;

- (b) assisting the persons carrying out the investigation with analyzing the information gathered during the investigation;
- (c) assisting the persons carrying out the investigation with identifying any corrective actions necessary to prevent recurrence of similar incidents.

2 Section 1 comes into force on April 3, 2017.

Dated at Richmond, British Columbia, December 14, 2016.

By the Workers' Compensation Board

John Beckett, Chair, Board of Directors