



Regional District of Nanaimo
Fire Services Review

Dave Mitchell & Associates Ltd.

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Regional District of Nanaimo

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Executive Summary

The Regional District of Nanaimo (the “RDN” or the “Regional District”) rural fire service consists of six volunteer fire departments (the “Departments”), operated by a like number of fire protection societies, each of which provides service under the terms of an agreement with the RDN. In addition, the RDN contracts with the City of Nanaimo, the City of Parksville, the Cranberry Fire Protection District and the Town of Qualicum Beach for fire protection in areas within the RDN, but not located within the fire service area boundaries of the six Departments. The scope of this review was limited to the six Departments.

The introduction of the Office of the Fire Commissioner’s *Structure Firefighters Competency and Training Playbook* (2nd ed., May 2015) (the “Playbook”) requires the local Authority Having Jurisdiction (the “AHJ”) to set the level of service to be provided by its fire service(s). The Office of the Fire Commissioner (the “OFC”) has indicated that, in its view, where a local government has established and is funding the service, it will be expected to fulfil this responsibility, even if providing the service through a contract with an independent society. The chosen level of service, in turn, establishes certain minimum training standards which must be met, and the Playbook requires the AHJ and the individual departments to ensure that these standards are met, that a training program is in place and that proper records are maintained.

The RDN retained Dave Mitchell & Associates Ltd. (the “Consultants”) to conduct a review and analysis of the impact of the Playbook in the context of six specific tasks. These tasks were to assess the current operational capability of each Department to enable an appropriate service level determination, as well as to advise on appropriate training and competency requirements. The review was also to assess the needs and requirements of each Department in relation to meeting the newly mandated training obligations, and the nature and type of support that should be provided by the RDN. The final principal task was to review the underlying bylaw and contractual structure and provide comments and advice on realigning the existing structure to reflect both the Playbook requirements as well as best practices. As the Departments operate with volunteer or paid-on-call members, advice was also provided on recruitment and retention issues.

The operation of fire departments by societies is a legacy model which is becoming less common in the province. One recommendation going forward is for the RDN to take a more active role overseeing the delivery of emergency response services by the societies and the individual Departments, and to provide a higher level of administrative support. This is for a number of reasons including that the RDN is the AHJ and has ultimate responsibility for the service.

At a high level, there are a few issues which stand out. First, as the supporting tax bases vary widely between the six local fire service areas, there are “have” and “have not” departments. The Department with the smallest tax base has the lowest budget, but the highest mill rate for the service being provided. Not surprisingly, there is a direct correlation between the available funding and the level to which each Department is functioning. Operating a fire service that is fully compliant with the increasingly complex web of externally-mandated regulations and standard is both difficult and expensive. As the RDN steps up its capacity to provide support, it

will need to focus initially on measures that will assist these Departments to bridge the gaps in their formal systems and structures. The recommendations in this report, which cover matters such as the development of a uniform set of operational guidelines, common proficiency requirements and training programs, will greatly assist all of the Departments and materially relieve some of the administrative burden with which several of the Departments are currently struggling.

There are service agreements with the societies which need to be reviewed and updated to clearly tie these agreements to the local service bylaw and operational bylaw, and to reflect the obligations arising from the Playbook. The agreements should also clarify the RDN's right to oversee and prescribe standards or requirements and to clarify how the service level is set and potentially revised. The agreements should provide for regular consultation with the societies and the Departments, as well as establishing clear reporting expectations relating to training, operational and occupational health and safety ("OH&S") matters. The RDN should also ensure that Operational Guidelines (the "OGs"), which are necessary for the safe and proper operation of the fire service, are developed for each Department. In that regard, we are recommending that the RDN adopt the approach in use by other regional districts, and, in consultation with the Fire Chiefs and officers, create a uniform set of OGs which are utilized by all Departments.

The six Departments operate with the support of other area fire services through mutual aid and automatic aid agreements. In general, the principal agreements have been very well drafted, though some specific recommendations have been offered on clarifying the power and authority of each participating fire service to operate in the service areas of the other fire departments. Consideration also should be given to ensuring that each participating fire service operates under the same incident command system, and that training and accountability systems be clearly spelled out so that the training and competency of every firefighter at an emergency scene can be readily ascertained by an incident commander.

The Departments, like most in British Columbia, are responding to an increasing number of calls over the most recent period of years.

The appointment of chief officers was reviewed and it is recommended that the RDN work with the Departments and societies to develop clear policies with regard to the educational, training and experience requirements for the position of Fire Chief, and clarify that promotion be based on open competition subject to meeting the specified proficiency and experience requirements. Compensation for officers and firefighters should be reviewed to develop a reasonable level of equity and to ensure all out-of-pocket expenses are reimbursed.

In terms of greater efficiencies, it is recommended that the Departments consider increased utilization of RDN (or member municipality) staff for apparatus maintenance and equipment testing. A more centralized approach in equipment maintenance and testing will help manage costs, while ensuring that all such practices comply with National Fire Protection Association ("NFPA") and WorkSafe BC requirements.

Each of the Departments was reviewed and their current organization, administration and operations considered in separate departmental reports. These reports examined the current

level of training in each Department, including a review of their present capabilities against their anticipated level of service. The training plan to achieve compliance with the level of service they are expected to provide should be confirmed and budgets developed which reflect the additional training that likely will be required.

It is also recommended that the RDN authorize a new position of fire services coordinator. In order to meet its own, more explicit obligations, and to provide greater assistance to the area Departments, requires that the RDN develop its support capacity and increase its available internal expertise. The role of this position would be to provide central coordination and support to all Departments, to facilitate the development of formal structures (such as OGs and OH&S programs) that currently are lacking or in need of improvement, and to assist the Departments in meeting their Playbook obligations. The fire services coordinator would also ensure that appropriate records were maintained and available for audit purposes to ensure training and competency. The fire services coordinator will also be able to provide the RDN, in its role as the AHJ, with better insight into the operation of the area Departments, so that the Board is able to meet its various supervisory obligations.

Recruitment and retention of volunteer firefighters is a challenge facing volunteer and composite departments throughout the province. Most of the Departments reviewed are generally managing reasonably well by comparison to a number of their peers in other jurisdictions. It is recommended that a multi-path approach be considered, in which the RDN (including its elected officials) play a more proactive role. The RDN and its Departments should consider a review of remuneration for its paid-on-call members, as well as developing a duty crew system, in addition to an outreach program with business owners to permit volunteers to respond to emergency calls. The RDN may also wish to consider developing a Work Experience Program, an approach taken in a number of other communities in the province. Such a program is designed to provide a core number of trained firefighters during normal business hours when responses by volunteers may be lower.

Throughout the review process both the RDN staff and the individual Fire Chiefs have been fully cooperative, they have made themselves readily available and provided all the requested information in a timely manner. They have demonstrated a high degree of professionalism and interest in the process. In our follow-up with individual Departments regarding their particular reports, many are already seeking to implement the recommendations and address identified concerns. Their commitment to providing effective and timely emergency responses is readily evident, and the residents owe them much for the commitment of time, care and attention that they collectively provide. The same is true for the individual societies and their volunteer boards, where members of the community have stepped forward to support the Departments, and to aid them in dealing with in an increasingly complex, and at times fraught, regulatory milieu. We offer our thanks to everyone involved in the review process.

Background and History

On 14 October 2014, the OFC issued a new training standard – the Playbook – applicable to the training of fire services personnel in the province. This new standard was issued pursuant to

and approved by the Minister of Justice under paragraph 3(3)(b) of the *Fire Services Act* (B.C.). An updated, second edition was released in May 2015. The Playbook replaces the 2002 minister's order on training and is binding on all "fire services personnel" in the province.¹ The previous minister's order, MO-368 (December 2002), has been rescinded. A more detailed review of the Playbook and the impact it will have on the British Columbia fire service and those that manage this service can be found later in this report. Suffice to say, the Playbook requires those communities or organizations that are responsible for establishing a fire service, to formally declare and adopt through bylaw or policy, the level of service the fire department will provide. Once a service level is selected, the AHJ is then responsible to properly fund and ensure that the fire department's level of training adequately meets the mandated proficiency requirements. The Playbook establishes three levels of service, each with a concomitant level of training:

- Exterior Operations Level
- Interior Operations Level
- Full-Service Operations Level

The second edition of the Playbook set 30 June 2016 as the transition date by which the service level must be declared and an appropriate training program developed.

In July 2015, the RDN issued a Request for Proposals (the "RFP") to conduct a Regional District of Nanaimo Rural Fire Services Playbook Implementation Review.

In order to properly understand the impacts of implementation of the Playbook on its fire services and to gain an understanding of the current training and operational levels within those fire services, the Regional District contracted the Consultants to conduct this review. The following report outlines the scope of work and methodology under which the Consultants conducted the Review, our findings and recommendations for implementing the Playbook, and further recommendations to improve the efficiency and effectiveness of the RDN's Fire Services.

Scope of Work and Methodology

The Scope of Work as outlined in the RFP defined the need to "...undertake a review and analysis of the impacts to the RDN's rural fire services resulting from the implementation of the Office of the Fire Commissioner's Structure Firefighters Competency and Training Playbook Second Edition, (Playbook) released May 15." In addition, the RFP outlined the following six areas that needed to be addressed during the review:

- 1) A review and analysis of the current service levels, competencies and training programs in each fire service area;

¹ As that term is defined in the *Fire Services Act* (B.C.). The Playbook is not binding on fire suppression operations undertaken by the Wildfire Service under the *Wildfire Act* (B.C.).

- 2) An assessment of recommended future service levels in each fire service area based on the nature of each community served in terms of development and infrastructure as well as fire department capacity and budget;
- 3) Strategies for improved service levels and developing potential efficiencies between fire departments in terms of training, purchasing and development of operational guidelines;
- 4) A review and analysis of the existing Regional District's support structures for the fire service areas and recommendations to improve those support structures;
- 5) Recommendations on improvements to the contracts and bylaws in place for each fire service area; and
- 6) Recommendations for volunteer recruitment and retention strategies.

The review commenced in early November 2015 and was to be completed in early 2016; the project was divided into four 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 rural fire service protection within the Regional District. 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, WorkSafe BC regulations, Fire Underwriters Survey requirements, and NFPA standards.

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 the Department's and Regional District'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 arranged to meet with each Department and the 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.

The second part of phase two included meetings with appropriate members of the Regional District administrative staff (including the CAO, finance and emergency programs), Society Board Members and Electoral Area Board Directors.

The process was designed to be as inclusive as possible for relevant stakeholders. It is our experience from similar projects that when there is broad involvement in the process, the outcomes are more readily accepted. We sincerely hope that all those involved have enjoyed and found value in the process.

Phase 3 – Development of Options

In the third phase, the Consultants have integrated the information obtained from the background review, on-site visits and stakeholder interviews and developed a series of options and recommendations for consideration by the stakeholders. Draft reports covering each Department were prepared, along with the initial draft of the main report.

Phase 4 – Develop and Present Final Report

The draft reports were reviewed with District staff and the individual departments. Comments from this phase were incorporated into the reports and, where required, further research was conducted and incorporated into the final reports. This final report provides an analysis of the RDN's existing service delivery model for its rural fire services, including an examination of the matters the RDN, the Departments and their respective societies must address in order properly to implement the requirements of the Playbook. In addition, the report identifies a series of options for changes to the existing model and a high level implementation plan and general timeline for implementation.

The focus of the review is on six rural fire services which are the principal responsibility of the RDN. The RDN also contracts for fire services into certain service areas from other local governments (either municipalities or an improvement district). Certain comments relating to service agreements and issues arising from the Playbook will need to be incorporated into these contracted services, although the Consultants did not conduct an operational review in those areas. Detailed reviews were undertaken in respect of the following departments:

- Bow Horn Bay Volunteer Fire Department
- Coombs-Hilliars Volunteer Fire Department
- Dashwood/Meadowood Volunteer Fire Department
- Errington Volunteer Fire Department
- Extension Volunteer Fire Department
- Nanoose Volunteer Fire Department

Our approach to these projects is to be inclusive of all relevant stakeholders, and is an iterative process which ensures that stakeholder feedback and input is properly captured and reflected.

Administrative Review

Overview

The Regional District was incorporated in 1967 and is local government to an estimated 140,000 residents. The RDN is approximately 206,840 hectares, includes four member municipalities and is divided into seven Electoral Areas. Each of the Electoral Areas, other than Electoral Area B, has at least one fire protection district contained within its boundaries.

Fifteen fire departments operate 23 fire halls throughout the Regional District, providing fire protection for all four municipalities and most unincorporated areas. Nine of these fire departments are administered and financed by municipalities or improvement districts, and operate independently of the RDN. The remaining six fire departments are volunteer fire department societies operating under service contracts with the Regional District. These societies provide fire protection and emergency response services in portions of Electoral Areas “C,” “E,” F, “G” and “H.” The RDN has established service areas, collects property taxes to fund the service, and, through service contracts with each Department’s society, funds the principal operational and capital costs operating the various Departments. Each of the societies is responsible for establishing and operating the Departments. They are the “employers” of the firefighters and are directly responsible for OH&S matters and day-to-day management of the Departments. The societies are contractually responsible for the delivery of emergency response services by their respective Departments. The societies also are responsible for developing budgets for their Departments, which budgets are subject to review by RDN staff and approval by the RDN Board.

The use of a volunteer society-operated fire service is an older model, which increasingly is being replaced by the direct delivery of emergency response services by local government. The model developed in the period from the 1960s to 1980s, principally as a means enabling the establishment and delivery of such services when regional district governments lacked the administrative structures to provide the service directly, and during a period when the regulation and operation of the fire service was far less demanding. Since the 1980s, the operation of a fire department has become increasingly demanding from the perspective of training standards, equipment and apparatus requirements, operational and capital investment, OH&S requirements and overall risk of personal and collective liability for service delivery.

The RDN does not currently have any staff directly dedicated to overseeing the fire services for which it is responsible. As it stands today, the Regional District has limited insight into the day-to-day operations of the various Departments that it funds, and relies, as it has in the past, on the individual societies and their local fire chiefs to ensure that effective fire protection is provided in the various service areas. The recent implementation of the Playbook has necessitated a reconsideration of this approach. The RDN has received external advice that it is AHJ under the Playbook, a view that concurs with the position taken by the OFC in its published materials. As the AHJ, the RDN is responsible for establishing and determining the level of service provided and has significant obligations to meet under the Playbook; the

societies, however, as the entities operating the six Departments, also are directly responsible for ensuring that the Playbook's requirements are met by their respective Departments.

Given its obligations under the Playbook, and the need to ensure that the fire services operate in a more coordinated and consistent fashion, the Regional District will need to take a more active role in overseeing and coordinating the delivery of fire and emergency response services by the various departments. In consultation with its fire departments and their respective societies, the RDN also should examine modernizing the overall structure, so that the risks and liabilities attendant on delivering emergency responses services rests with local government rather than volunteer societies.

The following sections review the organizational and legal structures currently in place and recommend changes where appropriate. Nothing in this report should be construed as legal advice. Any legal or liability issues identified in this report should be reviewed by the RDN or the individual societies with their respective legal advisors.

Organizational and Legal Structure of the Fire Services

The basic structure used to operate the RDN's fire services is reasonably consistent:

1. There is a service establishment bylaw (the "Service Bylaw"), which authorizes the RDN to provide or "otherwise obtain" fire suppression and emergency response services. These bylaws define the specific service areas within which the service is provided, authorize the levying of taxes to fund the service and set a maximum tax rate. Most of these bylaws are "conversion" bylaws, which transformed "specified areas" into "local services areas" in accordance with the *Municipal Act* (B.C.) or its successor legislation, the *Local Government Act* (B.C.).
2. There is an operational powers bylaw (the "Operational Bylaw"), which confers on each Department various powers and authorities to respond to incidents and undertake emergency response activities. These bylaws also generally identify the services provided and address (or should address) certain administrative structures and processes. These bylaws are critical to defining each Department's operations and empowering it to act at and in relation to various emergencies. In the case of one Department (Coombs-Hilliers), for reasons that are not clear, this essential bylaw has not been enacted. This issue is considered in greater detail below, along with a more detailed discussion of the importance of these bylaws and some of the issues identified in connection with the current versions that exist. Recommendations are made to move to a single Operational Bylaw covering the operations, administrative processes and Playbook issues for all of the Departments involved.

Some of the Operational Bylaws also contain certain fire prevention provisions (e.g., bans on open burning, control of the use of domestic and commercial incinerators, etc.). These fire prevention provisions will need to be reconstituted in separate, area-specific bylaws if the recommendation made below, to create a single operational bylaw covering all Departments, is adopted by the RDN.

3. Some jurisdictions have separate fire prevention bylaws (“Fire Prevention Bylaws”), covering matters such as open burning, maintenance of premises and other matters. These types of bylaws are area-specific. As part of the overall refreshing of the bylaw structure, it may be beneficial to review each of the Fire Prevention Bylaws and update them where required. In particular, it may be useful to tie enforcement measures under the Operational Bylaws and Fire Prevention Bylaws to a ticketing bylaw. This approach will facilitate enforcement activities (as opposed to having to proceed under the *Offence Act* (B.C.)).
4. There is service agreement between the RDN and each society (the “Service Agreement”), under which the RDN contracts for the provision by the society of fire protection and emergency response services. This service agreement is substantively the same across all six jurisdictions, and is reviewed in greater detail below. Each of the agreements dates from the 2004 – 2006 period. If fire protection and emergency response services continue to be provided by one or more societies, this form of agreement should be updated, as discussed below. In addition, we would recommend that the RDN review its service agreements related to the contracted fire protection services that it receives from other local governments, to ensure that various Playbook and other concerns are properly addressed.
5. Each society has its own constitutional structure under which it operates. The societies all have been formed and are subsisting under the *Society Act* (B.C.). Some of these entities are now fifty or more years old, and have undergone various revisions to their constitutional documents (their respective constitutions and bylaws). We reviewed a sampling of these materials of which the RDN had copies, although in discussions with some of the society board members, it appears that the RDN does not have the most recent or up-to-date versions. In addition, certain societies indicated that they were actively in the process of updating their constitutional documents. We would recommend that each society review and comprehensively update its constitutional documents, to ensure that their corporate structure is fully modernized and properly designed to address the considerable legal obligations and liabilities that flow from being responsible for a fire department and the delivery of emergency response services.

Operational Bylaws

In the individual Department reports, an overview was provided regarding the role and importance of the Operational Bylaws, as well as a summary review of each jurisdiction’s existing Operational Bylaw. Understanding the role of this type of bylaw in connection with fire department operations is crucial. As a starting point, it needs to be recognized that, for local governments, fire departments are an optional service.² Unlike provincially created emergency services, such as police and ambulance, which are established under and/or operate pursuant to provincial statutes and have a uniform range of powers, a fire department only has the power and authority granted to it under the local bylaw which creates and defines its operations.

² The only exception to this is the City of Vancouver, which is required to maintain a fire department pursuant to the terms of the *Vancouver Charter* (B.C.).

Outside of its operating jurisdiction – which, in the case of a service established by a regional district, is the boundaries of the local service area³ – 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 fire department has the full range of powers needed to respond effectively to incidents within its jurisdiction. Where it is responding outside of its ordinary jurisdiction, express consideration should be given to the source of the department’s powers to respond to and operate at an incident – whether under a mutual or automatic aid agreement, under a fire service contract or in support of another emergency response agency, such as the Wildfire Service.

Similarly, there is no standard range of services defined for a fire department. As such, the bylaw structure needs to define the services expected to be provided in the local service area. Given that fire departments are the only “all hazards” response agency under the control of local government, 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, apparatus and equipment.⁴ In addition, the exercise of certain powers (such as entry onto property in non-emergent situations) should be carefully circumscribed – if not in the bylaw itself,⁵ then in policy and operational guidelines.

The existing structure described above, has a separate operational bylaw for five of the six Departments. Each bylaw has a slightly different “flavour,” reflecting the fact that they were drafted and passed at different times between 1990 and about 2005/06. We would recommend, therefore, that the RDN follow the practice of a number of other regional districts which have adopted a single operational powers bylaw covering all of their fire departments.⁶ There are a number of advantages to this approach:

- The grant of powers is uniform across the region, so each Department has the same authority to operate at and control a scene;
- Uniform processes for matters such as incident command, personal accountability systems, operational guidelines and various administrative matters (such as adherence to OH&S requirements) can be established;
- Bylaw maintenance is reduced, since only one bylaw needs to be revised or updated;

³ For a fire service established by a municipality, the boundaries typically align with the municipal boundaries.

⁴ There may also be a need for additional authorizations to provide some services – for example, providing “emergency health services”, as contemplated by the *Emergency Health Services Act* (B.C.), requires appropriate training and certification and an agreement with the Emergency Health Services Commission.

⁵ The bylaw should stipulate the circumstances in which entry can be sought, and statutory authority which underpins that authority.

⁶ This approach has been adopted by, among others, the Columbia-Shuswap Regional District (12 departments), the Comox Valley Regional District (four departments), the Regional District of Central Kootenay (17 departments) and the Regional District of Fraser-Fort George (13 departments).

- The RDN can establish a uniform process by which the Service Level will be set for each department as required by the Playbook;⁷
- The RDN can establish uniform reporting requirements to ensure that it is able to monitor each Department's adherence to the Playbook and other service standards;
- The RDN can specify powers and authority for a fire services coordinator position (if the recommendation to create such a position, as set out later in this report, is adopted);
- The RDN can authorize consistent extra-jurisdictional operations for each Department, and empower those Departments to operate in other unincorporated portions of the RDN, as may be necessary.

At least one regional district – Columbia Shuswap Regional District (the “CSRD”) – has used its common Operational Bylaw also to establish joint mutual aid arrangements among all of its departments. In that case, the CSRD provided general mutual aid response authority which was then further refined by the CSRD departments in uniform operational guidelines. The bylaw also included a provision pursuant to which the CSRD fire services coordinator was advised of mutual aid call-outs, so that he or she potentially could pre-alert other departments in the event that further resources are required.

The following principal matters should be covered in a common Operational Bylaw:

1. A process for establishing (and, if necessary, modifying) the Service Level for each Department.
2. A list of the services which the Departments are authorized to provide. Certain Departments may not provide all services (e.g., not all departments provide First Medical Responder (“FMR”), auto extrication or hazmat services) and the bylaw should include a process by which the specific service delivery by each Department will be determined. There also should be a clear process for Departments to provide additional authorized services (e.g., to begin providing FMR services). By way of example, the services authorized may include:
 - Fire suppression (subject to the chosen Level of Service);
 - Wildfire and interface fire suppression;
 - Fire prevention, pre-fire planning and public education;
 - Emergency health services (subject to any agreement with the Emergency Health Services Commission) and/or ancillary health services under the *Emergency Health Services Act* (B.C.);
 - Vehicle extrication/road rescue services;
 - Technical rescue services – the types of technical rescue authorized should be specified (e.g., low angle, high angle, confined space);
 - Hazardous materials responses;
 - Water rescue and/or swift water rescue;
 - Fire inspections under *Fire Services Act* (B.C.);⁸

⁷ This is not to suggest each department will operate at the same Service Level – merely that the *process* by which the Playbook Service Level will be set, can be uniformly established.

- Fire-cause investigations;
 - Support of other emergency response agencies including police and ambulance; and
 - Such other life and health safety responses as may be authorized through a defined process.⁹
3. The bylaw should note that services are being delivered by volunteers and paid-on-call members, and that a poor turn-out for any given incident may adversely impact a department's ability to provide services.¹⁰ In addition, the bylaw should note that an incident commander has the authority to restrict or terminate emergency response activities, in his or her discretion, where the incident exceeds the training, equipment, apparatus and/or personnel available.
4. The bylaw should include a list of standardized administrative and operational requirements applicable to all Departments. This list should be developed in consultation with the Departments and their chief officers. The RDN should be prepared to assist each Department in meeting the requirements that may be set. The types of issues that regularly are addressed include the following:
- A process for developing standardized, region-wide operational guidelines (as with a common operational bylaw, many regional districts are also developing a common set of operational guidelines for use by their departments¹¹). Maintaining operational guidelines is a problem which bedevils most volunteer departments. These standardized operational guidelines also can be used to ensure that a common incident command system is used by all RDN departments.
 - The requirement to, and a process for, developing a standardized set of proficiency and qualification requirements for each position in a Department.
 - The requirement to, and a process for, developing of a standardized training program to achieve the principal training and qualification requirements (e.g., to

⁸ **Note:** under sections 26 and 36 of the *Fire Services Act* (B.C.), municipalities are required to provide for a regular system of inspections of public and commercial buildings. Regional districts may elect to provide such service, but the service needs to be expressly authorized.

⁹ The bylaw should define the process by which new services may be added (and what authorization is required). In addition, the RDN will need to build comparable language into the contract with each Society responsible for providing services.

¹⁰ A recent bylaw passed by the Greater Vancouver Regional District in relation to the Sasamat Volunteer Fire Department, noted that the bylaw did not provide "a guarantee or warranty by the Greater Vancouver Regional District or any of its agents, as to the service level expectations of the Sasamat Volunteer Fire Department under this bylaw, or any other applicable codes, enactments, agreements or standards" or constitute "a warranty with respect to the services of the Sasamat Volunteer Fire Department or with respect to the certainty of timely response levels." See: *Greater Vancouver Regional District Sasamat Volunteer Fire Department Administration and Regulation Bylaw No. 1204, 2014*, s. 1.5.

¹¹ The Columbia Shuswap Regional District has posted its common operational guidelines on-line. They can be reviewed at: <http://www.csr.bc.ca/node/1397>. Common operational guidelines are also in use in the Region District of Fraser-Fort George, the Cariboo Regional District and Comox Valley Regional District.

qualify for the Exterior or Interior Operations Service Level in accordance with the requirements of the Playbook).

- Most such bylaws also specify a process for appointing fire department members, officers and fire chiefs. Under the existing RDN system that approach would be complicated, as the societies (not the RDN) are directly responsible for fire department appointments. To the extent that the RDN takes over direct responsibility for delivery of fire services in one or more service areas, the process should be specified. Where societies remain responsible for service delivery, the agreed proficiency requirements should be used to determine whom can be selected (or elected) to various positions.
- A standardized accountability system which ensures that all members at an emergency scene are properly accounted for and that their training levels are readily apparent. The latter is particularly critical for mutual aid responses.
- A process for sharing pre-incident plans, particularly amongst regular mutual or automatic aid partners.
- Standardized reporting requirements from the various Departments so that the RDN is able to monitor its obligations, including those under the Playbook. The nature of these reporting requirements may vary depending on whether RDN is responsible for directly delivering the services or continues to use a contracted service through one or more of the societies.

It should be noted that most bylaws establish a process and assign responsibility for creating many of these common systems. Typically, the “fire services coordinator” is directed to work with the area departments and chief officers, and develop and implement the necessary policies or systems.

5. The bylaw needs to provide a comprehensive set of powers for the Departments to operate at and mitigate incidents to which they have responded. These powers include the right to enter property and premises where an incident has occurred; to pass over or station on properties to gain access to an incident; the power to tear down buildings or structures, or remove things, to prevent the spread of fire or mitigate an incident; the power to commandeer equipment; the power to establish a perimeter around an incident and ban people from entering such perimeter. There also should be a broad definition of the term “incident,” so that a Department is authorized to use its powers as required.
6. The bylaw needs to address situations where the Department has to enter property in non-emergent situations. The RDN departments do not currently conduct “fire inspections” under section 26 and 36 of the *Fire Services Act* (B.C.). However, they may need to address fire hazards on complaint, or where a hazardous situation becomes evident. In addition, fire departments which are providing the Interior Operations Service Level will need to undertake pre-planning of risks larger than a standard residential dwelling, if they intend to conduct interior operations in such structures. They will need to be granted powers to enter onto properties or premises in such for such purposes. There are powers of entry provided for in the *Fire Services Act* (B.C.) and in the *Community Charter* (B.C.) which can be used. (It should be noted, however, that the

Fire Services Act (B.C.) is in the process of revision: a substantially revised statute has been introduced in the current sitting of the Legislature. Bill 4, the new *Fire Safety Act*,¹² will substantially impact a number of matters, including powers and authority, and inspection obligations. The changes introduced by the new *Fire Safety Act*, as they are relevant to the Regional District and its Departments, are summarized at the end of this section.

7. The Departments need to be authorized to enforce other RDN bylaws (e.g., area-specific fire prevention bylaws). They also should be empowered to order the rectification of fire hazards and similar risks. Ideally, the powers to enforce such bylaws should include the ability to write tickets under the municipal ticket information system. This system permits local governments (including regional districts),¹³ to use a ticketing system for enforcing their bylaws. The need for this power may vary by jurisdiction: the issue should be reviewed with the various Departments and their chief officers.
8. The Operational Bylaw should specify the circumstances in which a Department can operate outside of its ordinary boundaries. As noted above, where a Department is undertaking response activities outside of its ordinary jurisdiction, consideration should be given as where it draws its operational authority from when so acting. The list of permitted circumstances usually includes:
 - Responses under a mutual aid or automatic aid agreement with another jurisdiction;
 - Responses under a contract for service (e.g., into a First Nations reserve);
 - Responses in support of the Wildfire Service under the *Wildfire Act* (B.C.), in accordance with the Wildfire Service's current operational guidelines;
 - Responses in connection with an authorization received from Emergency Management BC ("EMBC"), with an EMBC authorization number (e.g., for road rescue) or at the request of the OFC with appropriate EMBC authorization (typically where there is an emergency resource mobilization related to a major wildfire or natural disaster);
 - Discretionary responses on the periphery of a Department's fire service area in relation to events which, if left untended, may pose a threat to the fire service area;
 - Responses made under or in relation to a local or provincial declaration of emergency under the *Emergency Program Act* (B.C.); and
 - Such other extra-jurisdictional responses as may be authorized or approved by the RDN.

The RDN can authorize and empower a Department to operate in other unincorporated portions of the Regional District. However, for a Department to operate in another

¹² Bill 4 – 2016: *Fire Safety Act*, 2016 Legislative Session: 5th Session, 40th Parliament (1st Reading) (hereafter, the "*Fire Safety Act*"), at: <https://www.leg.bc.ca/parliamentary-business/legislation-debates-proceedings/40th-parliament/5th-session/bills/first-reading/gov04-1>, accessed 26 March 2016.

¹³ See section 414 of the *Local Government Act* (B.C.).

regional district or within a municipality's borders, an agreement with the other local government is needed. Extra-jurisdictional responses also should be specifically addressed in the common operational guidelines noted above.

9. The common Operational Bylaw should also be used to specify the responsibilities of each Fire Chief (or delegate), including:
 - General oversight and control of the Department;
 - Any specific reporting obligations to the RDN (either directly or through the relevant society);
 - Establishing and operating a training program which reflects the department's Service Level and service commitments and complies with the Playbook, *Workers Compensation Act* (B.C.) ("WCA") and regulations, and any other applicable legislation or standards;
 - Operating an OH&S program and joint committee (or worker representative) system in accordance with the WCA;
 - Maintaining appropriate records of required training, personnel issues, OH&S matters and other matters as required;
 - Development of pre-plans and identification of major risks within the fire service area including, where relevant, any which the Department is restricted from entering due to a lack of pre-planning or because of the nature of the risks posed;
 - Conducting fire cause investigations and reporting to the OFC; and
 - Such other duties, reporting obligations or functions as may be considered necessary or appropriate.

10. Where the RDN is directly providing the service, the bylaw should make clear that the Department members and officers are considered "local public employees" within the meaning of s. 738 of the *Local Government Act* (B.C.) and entitled to the benefit of the Regional District's indemnity bylaw. It is not clear whether individuals who are employees of, or volunteers of, a separate legal entity (a society), which is paid to provide services under contract to the RDN, can be included in such a designation. This issue should be examined with outside counsel.

For reasons which are not clear, an Operational Bylaw does not appear to have been passed covering the Coombs-Hilliers fire protection area. This lack of a powers bylaw presents some challenges and risks. The Department's power to operate at an emergency scene essentially has to be inferred from the creation of the service. Certain powers (e.g., the power to pull down buildings or structures to prevent the spread of fire) need to be specified by bylaw in order for the Department to be comfortable that it is authorized to take such actions.¹⁴ As an interim measure, a powers bylaw probably should be passed covering the Department's operations.

¹⁴ See, for example, s. 303 of the *Local Government Act* (B.C.), which stipulates that a regional district board can grant certain powers to the fire chief (or others), but must do so by bylaw.

New Fire Safety Act

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

- fire inspections;
- fire investigations; and
- the powers exercised by fire chiefs, fire inspectors and fire investigators.

Certain of the matters dealt with in the new *Fire Safety Act* will need to be incorporated into bylaw by the Regional District. It should be possible to address the necessary matters in the proposed standardized “operational bylaw”.

Fire Inspections

For the most part, the new *Fire Safety Act*'s regime for conducting inspections of public buildings will not impact the Regional District or its fire services. No obligation was created under the new statute requiring regional districts to undertake fire inspections: as was the case under the *Fire Services Act* (B.C.), only municipal governments have to conduct such inspections. Nevertheless, the Regional District will still have to appoint, in writing, an individual (or group of individuals) who will be authorized to act as “fire inspectors.”¹⁵ The reason for this obligation is that the existing office of “local assistant to the fire commissioner” has been terminated.¹⁶ Under the *Fire Safety Act*, fire inspectors will have the authority to undertake inspections on complaint or if considered advisable.¹⁷ It is important to note, however, that the obligation *is not limited to the unincorporated portions of the Regional District which have fire service areas*. Thus, consideration will need to be given as to who will be responsible for conducting such inspections in areas outside of the existing local fire protection service areas. It may be appropriate to roll this responsibility into the job requirements for the fire services coordinator.

Following a transition period, fire inspectors will be required to meet the training and proficiency requirements specified by regulation.¹⁸ If members of the various fire departments are to fulfil the fire inspector role for their respective fire service areas, the contracts with the Societies will need to address this obligation (including meeting the training requirements, when they are promulgated).

¹⁵ *Fire Safety Act*, s. 8(1): “A local authority must designate in writing persons or a class of persons as fire inspectors to conduct fire safety inspections.”

¹⁶ 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.

¹⁷ *Fire Safety Act*, s. 9, (a), (b) and (c); (d) applies only to municipalities, unless the Regional District passes a fire inspection bylaw for any portion of its unincorporated area.

¹⁸ *Fire Safety Act*, s. 8(2). The transition period is provided for in s. 53.

Fire Investigations

The requirement to conduct fire investigations is prescribed by section 25 of the new *Fire Safety Act*. Under that section, the Regional District 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. Section 23 requires the Regional District to designate in writing persons or a class of persons as “fire investigators.” As with fire inspectors, following a transition period, fire investigators must meet the training requirements specified by regulation.¹⁹ Those regulations have not yet been promulgated.

Again, the Regional District will likely want to incorporate this authority in the fire services coordinator, as well as in designated members of the individual Departments.

Powers and Authority

Under the *Fire Services Act* (B.C.), powers and authority were granted principally through the mechanism of appointing fire chiefs as “local assistants to the fire commissioner”.²⁰ In a municipality, the fire chief automatically became the local assistant. As noted above, the role of local assistant is being abolished. 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 hazard or explosion”,²¹ 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. In addition, local governments 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” and orders to correct the hazardous conditions have not been complied with.²²

In connection with these new authorities, the Regional District, in consultation with its Departments, will need to assess how such powers are to be exercised, by whom and in what circumstances. These matters should be addressed in the standardized operational bylaw and the individual contracts with the various societies. Consideration also should be given to addressing these types of issues in standardized operational guidelines.

¹⁹ *Fire Safety Act* s. 23(2); the transition period is provided for in s. 53.

²⁰ *Fire Services Act* (B.C.), s. 6.

²¹ *Fire Safety Act*, s. 13.

²² 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*.

Service Agreements

At present, the RDN does not directly provide fire services in any of its local fire service areas. With respect to the six Departments under review, the RDN has entered into a contract for the provision of fire and emergency response services with each of the respective societies that govern the individual Departments. The “Service Agreement” with each society is in substantively the same format, although there are minor variations reflecting particular issues specific to individual service areas.

It should be noted that each of the Service Agreements has numbering errors, where provisions are incorrectly numbered (with duplicate or repeated section numbers).²³

Term and Termination

The Service Agreements were signed between 2004 and 2006. Each Service Agreement is for an initial five-year term and then automatically renews: some for up to three further five-year terms; one for four further five-year terms; and three which potentially continue indefinitely.²⁴

Each of the Service Agreements may be terminated on written notice, which has the effect of terminating the particular agreement on 31 December of the next calendar year following the notice. So, a termination notice delivered on 30 June 2016 would result in the termination of the particular agreement on 31 December of 2017.

Five of the six Service Agreements contain substantively the same early termination provisions (essentially on a default or breach of the agreement, or if the RDN is of the view the society cannot properly provide the services or if the society fails to maintain its corporate standing). The Service Agreement with Bow Horn Bay also permits the RDN to terminate early if the RDN provides “alternate fire prevention and suppression services within the Service Area.”²⁵ That agreement also has language in s. 26 which states that the “[...] Agreement shall terminate not later than December 31st, 2009,” a provision which is inconsistent with the automatic renewal provided for in section 3.

²³ By way of example, the numbering of the sections in the Bow Horn Bay Service Agreement goes: 21, 22, 23, 22, 23; the comparable numbering in Errington Service Agreement goes: 20, 21, 22, 22.

²⁴ Three additional five-year terms: Coombs-Hilliers and Nanoose; four additional five-year terms: Dashwood; unlimited number of five-year terms: Bow Horn Bay, Errington and Extension.

²⁵ Bow Horn Bay Service Agreement, s. 27(c).

Services

Each Service Agreement sets out the services that the relevant society is responsible for delivering in an attached schedule. For four of the six Departments, the services provided were defined as follows:²⁶

- (1) fire prevention and suppression, including without limiting the generality of the foregoing, training of volunteer firefighters, inspections, enforcement of enactments relating to fire prevention and suppression, elimination of fire hazards and attending at fires for the purpose of containment and extinguishments of the fires and to provide assistance to persons and animals;
- (2) providing assistance in response to other classes of emergency as follows:
 - (a) explosion
 - (b) flood, tempest, earthquake, landslide, tidal wave or other natural event;
 - (c) building collapse or motor vehicle or other accident;
 - (d) spill, release or leak of a substance capable of injuring property or the health or safety of a person;
 - (e) risk of explosion or fire or a risk of a spill, release or leak of a substance referred to in (d);
 - (f) any emergency as declared under section 798.1 of the Local Government Act or under the Emergency Program Act;
 - (g) first response to medical emergencies; and
 - (h) rescue operations[.]

The Nanoose Service Agreement does not specifically include s. 2(e) – “risk of explosion or fire or a risk of a spill, release or leak of a substance referred to in [2](d)”, although this service is specifically authorized by the relevant Operational Bylaw.²⁷

The Extension Service Agreement omits “first response to medical emergencies”, as the Department does not provide FMR services. However, there also is a typographical error which appears to arise from attempting to delete the equivalent to s. 2(e), resulting in one of the services being provided being described as a response to:

“[the] risk of explosion as declared under section 798.1 of the Local Government Act or under the Emergency Program Act.”

Asset Ownership

Each Service Agreement contains an acknowledgement that the principal assets are owned by the RDN. Some also contain a separate schedule identifying particular assets owned by the individual society. In each case, the relevant society is given the authority to use the RDN assets to deliver Services “within and for the Local Service Area, or within and for any other

²⁶ See, for example, Schedule ‘A’ to the Bow Horn Bay Service Agreement. The list of services has been extracted from the definition of “Incident” in the Operational Bylaws.

²⁷ See Bylaw No. 1003 (1996), definition of “Incident” in section 2.

area in accordance with the terms of a mutual aid agreement.”²⁸ This formulation is somewhat constraining: it would be preferable for the societies to be able to use the assets for delivery of the Services within the Service Area, and as otherwise authorized by the Operational Bylaw or by the RDN (to deal with various possible extra-jurisdictional responses).

The Nanoose Bay Service Agreement stipulates that all the firefighting equipment and other assets which are used by the society and are within the boundaries of the Service Area must be retained by the RDN “to be used for the exclusive benefit of property owners within the Service Area.”²⁹ This provision is highly constraining and somewhat unclear. It would seem to prohibit the sale, for example, of used equipment (since proceeds are not specifically addressed) or the discard of equipment which is no longer serviceable. The RDN already has legal obligations specified in the *Local Government Act* (B.C.) in relation to its management of assets and funds which are financed through taxation in a local service area. The need for this provision is unclear.

Each of the societies is obligated to maintain the apparatus, equipment, fire halls and property in good working condition, to the satisfaction of the RDN.

Funding

Each of the Service Agreements recognizes that the principal cost for the delivery of Services by the relevant society is to be funded by local taxpayers. A standardized budgeting process is defined, with the RDN Board having final budget approval. The societies are required to administer the funds in accordance with the approved budget. In some Service Agreements, there is specific recognition that the relevant society may raise funds from sources other than the RDN.³⁰

The Service Agreements establish a process for making quarterly payments to the societies (subject to delivery of quarterly financial statements); they also impose obligations on the societies to present annual audited statements to account for amounts disbursed in accordance with the approved budget. The RDN has a right of audit in respect of each society’s use of public funds and may stipulate the manner in which each society’s books must be maintained.

Insurance

The RDN is responsible for insuring the vehicles, fire hall(s), related land, and other chattels and equipment used to provide the Services by the societies. The cost of such insurance is required to be included in each society’s annual budget. The Regional District also agrees to provide liability insurance coverage for the Services through the Municipal Insurance Association of BC (“MIA-BC”),³¹ subject to payment of the cost of obtaining such insurance (which is built into the

²⁸ See, for example s. 6 of the Dashwood Service Agreement.

²⁹ Nanoose Service Agreement, s. 6.

³⁰ See, for example, the Nanoose Service Agreement, s. 8; or the Coombs-Hilliers Service Agreement, s. 7.

annual budgets). The societies are permitted to take out insurance for matters not covered by the MIA-BC policy and the RDN may require them to do so.

Societies' Obligations

While the Service Agreements create a host of obligations for the societies and their departments, two are worth highlighting. The societies are required to:³²

“[...] operate the equipment and in all other ways provide the Services without negligence and in accordance with the standards of operation maintained by other volunteer fire departments, or [in accordance with] operational guidelines as may be established by the Regional District [...]”; and

“[...] comply with all enactments as defined in the *Interpretation Act* and all orders and requirements under an enactment including orders and requirements of the Workers' Compensation Board.”

These provisions make each society fully responsible for the manner in which fire and emergency response services are delivered and responsible for ensuring, among other things, that their respective departments meet the obligations arising under the Playbook and under the WCA.

Updating the Service Agreements

The Service Agreements are a decade or more old and require updating, both to ensure that the existing framework structure for matters such as budgeting, payments, insurance, maintenance and financial reporting remains appropriate, and to address the various requirements arising from the current review (including Playbook issues, RDN coordination and oversight functions and similar matters). The following matters should be contemplated for inclusion in the revised agreements:

- When updated, the Service Agreements should clearly tie into both the local service bylaw, and to the Operational Bylaw. The Departments rely on these bylaws for their powers and authority; their operation should be made subject to the provisions in those bylaws as they may be amended from time to time.
- The RDN's right to oversee and prescribe standards or requirements for fire department operations should be specified. Preferably, the role and authority of a fire services coordinator (or similar position) will be set out in the common Operational Bylaw. The Service Agreement will acknowledge the role to be played by such an individual. The

³¹ At the time the Service Agreements were signed, the MIA-BC policy technically did not cover services provided by external third parties (such as the societies) under contract to local government. The misunderstanding appears to have arisen internally at MIA-BC, and was not the fault of the RDN. MIA-BC amended its policy coverage commencing with the 2014 calendar year, to permit such coverage to be offered, so this issue is now moot.

³² See, for example, ss. 18 and 20 of the Nanoose Service Agreement; or ss. 18 and 20 of the Errington Service Agreement.

goal is to create a collaborative process, but as the AHJ, the RDN ultimately has to have the authority to establish requirements that the Departments must meet. It should be noted that other regional districts, such as the CSRD, through careful deliberative processes involving their fire departments and qualified regional district staff, have developed excellent, standardized requirements for their departments.

- There should be a better framework created for regular consultation between the RDN and its Departments and their respective societies.
- Reporting requirements for operational and administrative matters – such as training levels, training programs, records keeping and OH&S matters – should be more clearly defined. The RDN needs to ensure that it is receiving regular and thorough updates about fire service matters, particularly in respect of those issues for which it has responsibility as the AHJ.
- The process by which the Service Level will be set under the Playbook should be set out in the common Operational Bylaw and acknowledged in the Service Agreement. Where a society (or its Department) wishes to vary that Service Level, a process should be defined in the Service Agreement.
- The RDN should be prepared to commit to providing support services for the area Departments, which are specified in the Service Agreements. These support services could include:
 - Assistance with administration matters (e.g., managing books and records, payments, etc.). The RDN already provides such support to some societies: this assistance should be reflected in the relevant Service Agreement;
 - Assistance with meeting specific OH&S requirements;³³
 - Assistance with records keeping; and
 - Other administrative assistance.
- If the RDN wishes to encourage joint purchasing and equipment standardization by the area Departments, the Service Agreements should address those processes.

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.

³³ Note: so long as the Society structure remains in place in its current form, each Society is the employer of the individual Department members. Administrative assistance in fulfilling their obligations, however, is clearly needed by a number of the Societies and Departments that we met with in the course of this review.

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 providers. The principal benefit of automatic aid agreements is that they minimize the delay before additional resources begin responding from an assisting department.

As noted in the discussion of the Operational Bylaws, a fire department's operational authority does not extend beyond the boundaries of its defined fire service area. Mutual and automatic agreements provide the mechanism by which such assistance can legally and properly be provided, as well as protection for the fire departments involved.

There are two mutual aid agreements covering RDN departments:

- The District 69 agreement covering Bow Horn Bay, Coombs-Hilliers, Dashwood, Errington and Nanoose on the RDN side, and the departments from the Deep Bay Improvement District, Parksville, Qualicum Beach, and the District of Lantzville, dated as of 1 August 2010 (the "D69 Agreement"); and
- An older agreement between the "Extension Fire Protection District" and the "Cranberry Fire Protection District".

This section will focus on the D69 Agreement. In the individual department report for Extension, it was noted that the mutual aid agreement with Cranberry should be revised and updated. The form used for the D69 Agreement and comments and discussion here can be applied to that agreement as well.

There also is an automatic aid agreement, dated as of 12 December 2013, between the RDN, three RDN departments (Coombs-Hilliers, Dashwood and Errington), Parksville and Qualicum Beach (the "Automatic Aid Agreement"). This agreement was considered in some detail in the relevant individual department reports and will not be re-examined here.

D69 Agreement

The D69 Agreement is one of the best mutual aid agreements we have reviewed. An overview of its principal terms follows:

- The agreement has a five-year term, which automatically renews for up to three additional five-year terms, unless terminated earlier in accordance with s. 1.2.
- There is a clear statement of how mutual aid may be initiated (s. 3.1) and "Providing Parties" are given full discretion as to whether or not to provide assistance in connection with any request for aid (s. 3.3). A Providing Party is also entitled to recall personnel and

equipment that may be required in its home jurisdiction, and Requesting Parties are to use their own resources for overhaul and incident clean-up activities (ss. 3.5 and 3.7).

- There is a brief statement regarding training levels of responding members (s. 3.3) and the parties are required to use a common accountability system for tracking of personnel and equipment at an emergency scene (s. 5.4). The parties also provide for joint training exercises annually between “immediately adjacent mutual aid jurisdictions” (s. 5.7) and have established a committee of Training Officers who are to meet annually to coordinate joint training (s. 5.8).
- The costs incurred by a Providing Party can only be reclaimed if they are specifically identified in the D69 Agreement (s. 3.4). Section 8.0 defines what costs and damages are reimbursable, and sets out a process making such claims. The reimbursable costs and expenses are as follows:
 - for consumables (e.g., foam and absorbents);
 - for damage to equipment and tools to a maximum of \$5,000/incident; and
 - for damage to apparatus to a maximum of \$5,000.³⁴
- The parties have agreed to coordinate the equipment of tankers to ensure interoperability between the different departments (s. 3.6) and provide by schedule a list of agreed communications channels (s. 5.5, Schedule A) and certain common operational guidelines (Schedule B). The parties also have agreed to use common terms for emergency communications, based on the operational guidelines of their emergency dispatch provider (s. 5.6). We would note that this is the first mutual aid agreement which we have reviewed where such matters were expressly addressed and the participants are to be commended for the careful thought that went into creating these provisions.
- Section 3.8 provides that incident command rests with the Requesting Party, which has the authority “to command and control the personnel and equipment of the Providing Party” during the incident.
- Section 4.0 provides a blanket indemnity from a Requesting Party in favour of a Providing Party (s. 4.1), and sets minimum insurance levels which must be maintained.
- Each Party is required to provide updated mapping to its mutual aid partners annually (ss. 5.1, 5.2).
- The parties have also agreed to certain minimum maintenance standards for principal equipment (s. 5.9 and Schedule C). The equipment covered by this provision is as follows: ground ladders, fire hoses, SCBA, motorized apparatus, radio equipment, small

³⁴ In the case of damage claims, the damage cannot be due to the negligence of the Providing Party.

tools, specialized equipment and protective clothing.³⁵ Again, this shows an attention to detail that is to be commended.

- It should be noted for the participating RDN departments, that this creates an additional obligation of a contractual nature with respect to their maintenance obligations for the equipment that is listed in Schedule C.
- The parties have created an Operating Committee under s. 6.0, which has authority to revise the Schedules to the D69 Agreement (s. 6.2) and provides a mechanism for reviewing mutual aid activations (s. 6.3). The Operating Committee is also responsible for ensuring the participating departments exchange and review operational guidelines for compatibility, including (but not limited to) those listed in Schedule B. The Operating Committee's primary contact is also responsible for maintaining a list of resources available from each participating department (s. 7.0).
- The agreement includes a dispute resolution process in s. 10.0, which includes an "adjudication" panel of non-interested parties, or reference to court or arbitration.

Overall, this is almost certainly the best mutual aid agreement we have had the opportunity to review. It shows careful thought and consideration by the participants. There are a few matters which should be considered for addition, some of which can be dealt with through the schedules, though others would require amendments to the agreement itself.

Parties

As the RDN contracts for fire services from the various societies, which are separate legal entities, those societies should be added as parties to the D69 Agreement. In this way, the benefit of any indemnities and responsibility for certain obligations clearly apply to the entity responsible for the particular fire department. We would note that this approach has been adopted with respect to the Automatic Aid Agreement and the same approach should be taken here.

While the travel distances to Extension may be somewhat formidable, it might also be useful to include Extension in this agreement. In the event of a major incident (e.g., an interface fire), it would be useful to be able to activate support resources without having to first initiate a local declaration of emergency (alternatively, this type of assistance from other RDN departments can be provided for in the common Operational Bylaw, as outlined above).

Powers and Authority

The D69 Agreement should include an express provision dealing with the powers and authority of Providing Parties to operate in the neighbouring jurisdiction under a mutual aid request. Circumstances may arise where the Providing Party is either first on scene, or has been activated because the Requesting Party is otherwise fully engaged on another incident. A clear statement of the Providing Party's authority to control a scene, and undertake the full range of

³⁵ Rope rescue equipment is also listed in Schedule C, but no maintenance requirement is set.

emergency response activities would be useful. There are two basic approaches to this issue: either the responding department can be granted the same power and authority as is enjoyed by the requesting department; or the responding department can be granted the same power and authority to operate in the requesting 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 Mutual Aid Operating Committee 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.

With the advent of "Service Levels" under the Playbook, the D69 Agreement should expressly authorize each responding 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).

Incident Command

The parties should consider expressly adopting a uniform incident command system (e.g., BCERMS³⁶). While the provisions covering common and compatible operational guidelines may result in this issue being addressed – indeed, it is likely each participating department already uses BCERMS – the express addition of an agreed incident command approach would be useful.

At the same time, from an incident command perspective, the D69 Agreement should contemplate the following situations as well:

- (a) Situations where a Providing Party is first on scene or where the Providing Party is the only department on scene (e.g., because the Requesting Party is fully involved on another incident). In both cases, the Providing Party will be establishing and operating incident command. The Automatic Aid Agreement has express provisions dealing with these types of circumstances that could be contemplated for use here. This also is a matter that easily could be dealt with through common operational guidelines, rather than an amendment to the D69 Agreement.
- (b) Situations where the Requesting Party 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 Party's department is operating at a lower Service Level under the Playbook. While these circumstances will likely be rare, it would be useful for the Operating Committee to consider how such situations should be managed and develop a process and guidelines which can be added to Schedule B.

Training and Accountability Systems

The D69 Agreement notes that the Providing Party is supposed to ensure that its personnel have "the experience and/or qualifications" necessary for the type of incident, when sending

³⁶ BC Emergency Response Management System

them in response to a mutual aid request.³⁷ This section may be difficult to apply in practice, as the nature of the incident may not be fully understood when the request is made and personnel from a Providing Party are sent in response.

The critical issue, however, 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 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 and training. If such a system is not in use, it should be adopted. If it is in use, we recommend that the Training Committee 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 Training Committee also consider developing minimum standards of training applicable before a Providing Party will include a member on a mutual aid call (e.g., at a minimum, qualified to the Exterior Operations Level under the Playbook).

Indemnity Provision – s. 4.0

There is a blanket indemnity given by Receiving Parties in favour of Providing Parties in relation to "all claims, causes of action, suits, demands and expenses whatsoever arising of out or related to the Mutual Aid Agreement [...]". Consideration should be given to excepting out:

- Any claims contemplated by the provisions of section 8.0 (reimbursable costs/damage to equipment and apparatus);
- Where there has been gross negligence or wilful misconduct on the part of a Providing Party; and
- In relation to claims by members of the Providing Party which are covered under the WCA.

Each party also should expressly commit to maintaining coverage for all of its responding members under the WCA. In the event a member of a Providing Party is injured during a response, the Providing Party should be required to make a claim under its coverage for that member. This type of language exists in the Automatic Aid Agreement – see section 3.3 of that agreement.

³⁷ D69 Agreement, s. 3.3.

Dispute Resolution

We would recommend the RDN and other parties review the language in section 10.2, which deals with referring a matter to court or arbitration. Section 10.1 provides for an “adjudication panel” of other parties; the language in section 10.2, however, makes it mandatory – “shall be referred” – that these matters also be taken to court or arbitration. This section should be permissive, with either party to a dispute able to elect to go to court or to seek arbitration of a matter, rather than use the adjudication panel.

Recommendation: The RDN, in consultation with the Departments and their respective societies, review the bylaw structure, service contracts and mutual and automatic aid agreements based on the issues identified in this section on organizational and legal structures. In particular, the RDN should consider:

- (a) developing a standard operational bylaw authorizing the services provided by the Departments and empowering them to operate at an emergency scene, and providing a process for service level establishment (and revision);
- (b) reviewing and updating each service agreement with the relevant societies to address Playbook matters and related reporting requirements;
- (c) review and update, with the partner local governments and the societies, the mutual and automatic aid agreements currently in use.

Occupational Health & Safety

The statutory basis for OH&S programs is found in the WCA and the *Occupational Health and Safety Regulation*, B.C. Reg. 296/97 (the “Regulations”), as well as in other regulations and the policies of WorkSafe BC.

Under the existing structure, the societies are the employers of the fire department members. As such, it is the responsibility of the societies to ensure that the various obligations under the WCA and Regulations are being met. The six departments differ considerably in the level at which they meet their respective OH&S responsibilities. The following is a brief overview summary:

- **Dashwood** – Has a formal, written OH&S program including a respiratory protection program. The Department conducts regular OH&S meetings and posts minutes in the fire hall. The existing program could benefit from a substantive review and updating. The selection process for the joint committee should be revised as it does not entirely comply with the WCA requirements relating to composition and selection of members (see discussion of the Joint Committee, below).

- **Bow Horn** – Does not have a formal, written OH&S program or formal committee structure. OH&S meetings are occasionally held however no minutes are taken. For the most part safety issues are discussed during training sessions.
- **Coombs-Hilliers** – Does not have a formal, written OH&S program or formal committee. Safety issues are routinely discussed during training session however no minutes are taken
- **Errington** – Does not have a formal, written OH&S program however they do have a formal OHS committee. Monthly meetings are conducted and minutes are posted in the fire hall.
- **Extension** – Does not have a formal, written OH&S program; however, they do have a safety committee. Monthly meetings are conducted and minutes are posted in the fire hall.
- **Nanoose** – Has a formal written OH&S program including a respiratory protection program. The department conducts regular OH&S meetings and posts minutes in the fire hall. As with the Dashwood program, the Nanoose OH&S program would benefit from a substantive review and updating. The process of establishing the joint committee is not specified, so it is not clear whether the approach taken is WCA-compliant.

As can be seen from the brief summaries, only two of the six Departments have formal OH&S programs, and operate with regular OH&S meetings. The RDN should assist the societies and their Departments to develop a format for an appropriate fire department OH&S program and related joint committee structure as quickly as possible.

The following section lays out the framework for ensuring that there is in place an appropriate OH&S program and related joint committee. It is worth observing that neither the WCA nor the Regulations lay 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. In the event that the RDN becomes directly responsible for delivering fire suppression and emergency services within any of the service areas, its existing OH&S program will apply to the departments in question – although a separate joint committee will still be required for those departments.³⁸ Each of the societies which remains responsible for direct service delivery must ensure that all of the formal requirements in the WCA and Regulations are met, and their respective Department’s particular risk and hazard issues are comprehensively addressed.

Formal Requirements

³⁸ 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. Many local governments develop a specific OH&S program just for their fire services, to address the specific nature of the risks that they face.

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”,
- 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 Regulations requires an employer to initiate and maintain an OH&S program when it has a workforce of more than 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”.³⁹ The program must be designed to prevent injuries and occupational diseases, and is required to include:⁴⁰

- (a) a statement of the employer's aims and the responsibilities of the employer, supervisors and workers;
- (b) 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;
- (c) appropriate written instructions, available for reference by all workers, to supplement WorkSafe BC’s Occupational Health and Safety Regulation;⁴¹
- (d) 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;
- (e) provision for the prompt investigation of incidents to determine the action necessary to prevent their recurrence;⁴²
- (f) 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

³⁹ Section 3.1(1.1) of Part 3 of the Regulations.

⁴⁰ Section 3.3 of Part 3 of the Regulations.

⁴¹ This provision establishes the requirement for formal operational guidelines and/or standard operating procedures for the Department’s primary activities, including emergency scene operations.

⁴² Section 3.4 of Part 3 of the Regulations stipulates the required contents of any incident investigation report that is required to be completed.

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

- (g) provision by the employer for the instruction and supervision of workers in the safe performance of their work.

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 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”.

As noted above, four of the Departments are not operating a joint committee as required by the Regulations. The following is a general discussion of the requirements for the proper creation and operation of a joint committee by the societies responsible for the Departments.

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.

Each of the Departments has more than 20 members, though some may be operating out of two halls (which constitute separate work places – in which case, if there are fewer than 20 firefighters at each hall, the Department could operate with a worker representative appointed from each hall). It is possible to make application to WorkSafe BC for permission to operate a single joint committee covering both fire halls.⁴³ Some regional districts, such as the CSRD, have obtained permission to operate a single joint committee across multiple fire departments. The approach may be worth examining in the RDN, though it should be noted that, in the case of the CSRD, the regional district is the sole employer of the firefighters and officers.

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

- membership on the joint committee and appointment of co-chairs from amongst the employer and employee representatives;⁴⁴
- the means of selecting the worker and employer representatives;⁴⁵

⁴³ See section 126(1)(b) of the WCA.

⁴⁴ Section 127 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 duties and functions of a joint committee;⁴⁶
- the requirement for monthly meetings;⁴⁷
- certain administrative requirements (such as the keeping and posting of minutes of the joint committee meetings);⁴⁸
- the obligation of an employer to respond to recommendations from the joint committee;⁴⁹ and
- the employer's obligation to provide administrative support to the joint committee.⁵⁰

The establishment and operation of a proper joint committee is statutory requirement. Each of the societies, with the assistance of the RDN, should develop an OH&S program and establish a joint committee. Where programs already exist, the relevant Departments should undertake a review and ensure they are operating in accordance with formal requirements of the WCA and its Regulations. A review of the Dashwood and Nanoose OH&S programs suggest that both could benefit from refreshing and updating.

Once established, the joint committee is primarily responsible for ensuring that the Departments are meeting the requirements of their respective OH&S programs (including, for example, regular checks of the premises, apparatus and equipment), and for investigating workplace incidents should they arise.

The proper operation of a joint committee can be a time consuming task. One of the issues frequently identified during when working with volunteer and paid-on-call departments is 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, the societies and Departments should consider the following:

- whether the individuals who participate on the committees 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

⁴⁵ 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).

⁴⁶ Section 130 of the WCA.

⁴⁷ Section 131(2) of the WCA.

⁴⁸ See sections 137(1) and 138 of the WCA. Minutes of the last three meetings of the joint committee must be posted in the fire hall.

⁴⁹ Section 133 of the WCA.

⁵⁰ Section 136 of the WCA.

- whether the regular monthly meetings of each joint committee could be timed to occur at the end of the 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: Having a formal written OH&S program, having a formal joint committee (or worker representative), conducting regular meetings and posting minutes of those meetings is a mandatory requirement of WorkSafe BC. We strongly recommend that the RDN ensure that any societies and Departments not in compliance with these requirements undertake the work necessary to meet their obligations under the WCA and related regulations.

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 on a fire-involved structure or object, or operate in an environment 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 the department. The training, organization, staffing, equipment and apparatus required to support the chosen level of service will be impacted by that determination.

The Authority Having Jurisdiction will typically be the local government (i.e., a municipality, a regional district or an improvement district) which has established and is operating the fire service. In some regions, fire services are delivered by societies, or by unincorporated organizations of volunteers, which may then be considered the AHJ. In the case of the Fire Departments, the RDN has been advised by external counsel that it is the AHJ, a view which concurs with the opinion of the OFC. It should be noted, however, that the requirements and obligations created by the Playbook also are imposed on the societies, since they are “entities” which are operating fire departments. The AHJ, however, has some 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.

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. It may also have shifted the onus somewhat, as the RDN is the AHJ.

As a result of the Playbook, the RDN 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 to establish a service level for its department or departments by 30 June 2016 and implement corresponding training programs for its members and officers.

As noted above, our recommendation is that the Regional District implement a common Operational Bylaw that allows the service level to be set by Board 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 matters 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),⁵¹ 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 a local government 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 (as occurred in the Clearwater case),⁵² 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.

⁵¹ 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.

⁵² The death of fire fighter Chad Schapansky in Clearwater, BC in 2004 which resulted in a Coroner’s report “Judgement of Inquiry into the Death of Chad Jerry Schapansky”. This report found that the Clearwater fire department lacked written operational guidelines governing interior attacks; it could also produce no training records for accredited training done by the interior attack team, rapid intervention team or fire officers in charge.

As such, when the RDN formally implements the Service Levels for its Fire Departments, it is recommended that it also require that NFPA standards form the basis of all training for the operational functions undertaken and emergency services provided by fire services personnel, where such matters are not expressly stipulated by the Playbook.

As the AHJ, the RDN has the following principal obligations under the Playbook:

- Establishing the Service Level for each department; (s. 3, p. 4/20);
- Ensuring 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);
- Determining the appropriate means of delivering training (e.g., in house, externally or some combination of both); s. 6;
- Ensuring that appropriate records are kept; s. 6 p. 6/20;
- Ensuring that the Departments undertake the necessary maintenance training; s. 7 p.7/20; and
- Ensuring 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 and the societies are responsible for actually undertaking the activities (e.g., records keeping) or implementing the requirements (e.g., training of fire services personnel).

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 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

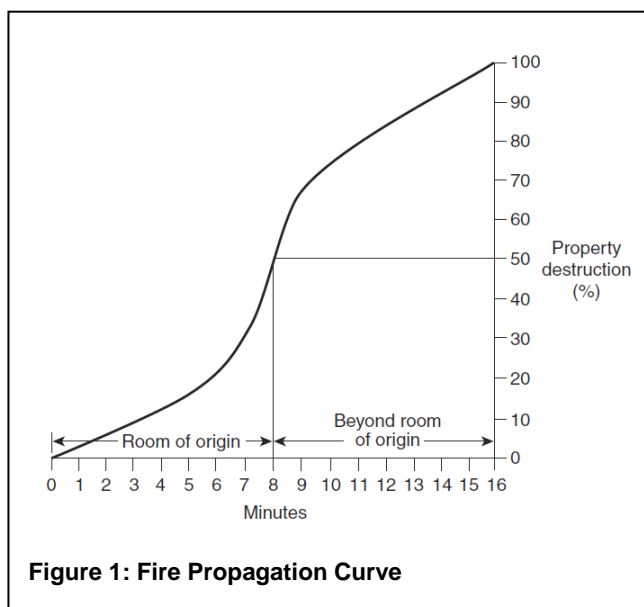


Figure 1: Fire Propagation Curve

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 \$58,421⁵³. 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.

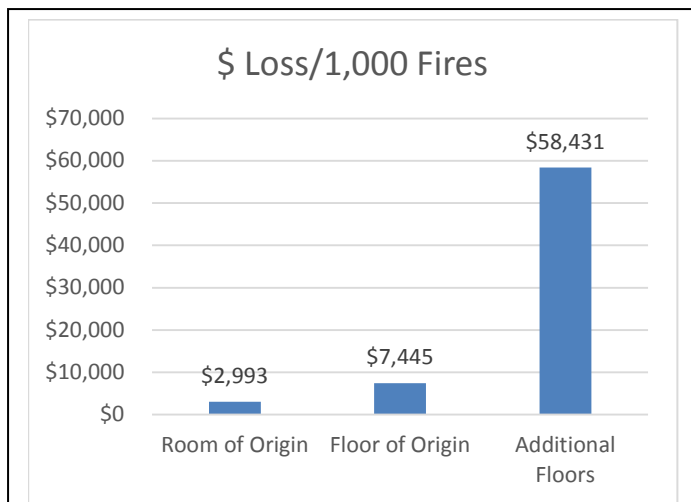


Figure 2: Average \$ Loss / 1,000 Fires

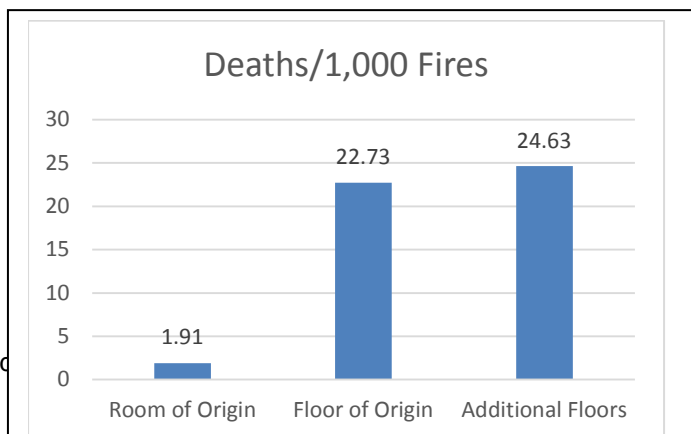
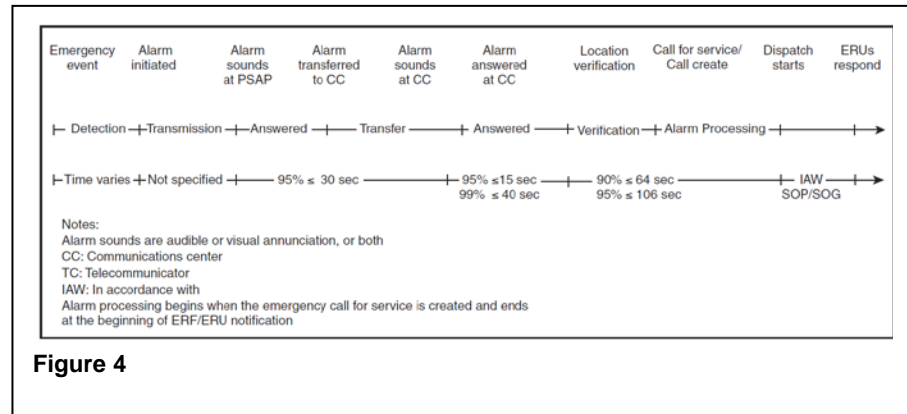


Figure 3: Deaths / 1,000 Fires

⁵³ The data used in this table is for the United Kingdom.

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 expectation for arrival and assembly of a fire crew decreases with density as shown in Figure 5. It is understood that for

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 AHJ's 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

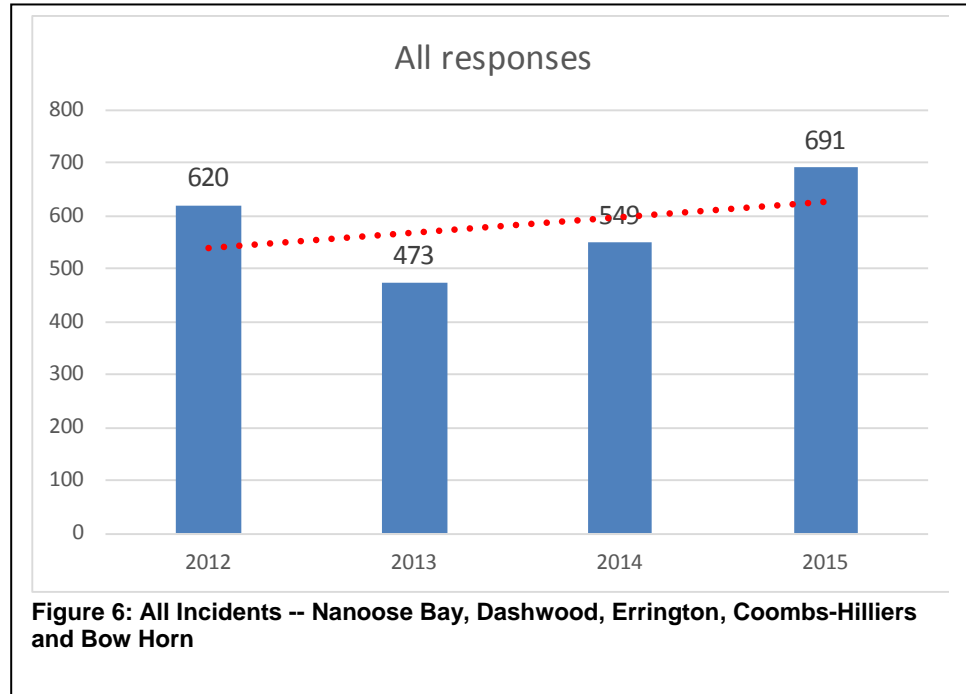
some fire departments challenged by longer travel distances they are not likely to arrive with sufficient firefighters within eight minutes; however, that remains a goal based on our understanding of the effect of longer response times on damage, injuries and fire fatalities.

Department Responses

Responses for the Departments are based on two data sets; the first provided by the Campbell River Fire Department which provides dispatch service for five of the six departments: Nanoose Bay, Dashwood, Errington, Coombs-Hilliers and Bow Horn. For these departments, the data is from 2012 to 2015 inclusive. For Extension the data set is for five complete years, 2010 through 2015⁵⁴.

The data for the five departments is shown in Figure 6.

Within this data, we can also review responses by incident type. This analysis will show that some incident types are increasing while others are showing a decline.



⁵⁴ The reason for the difference is that Extension is dispatched by the Nanaimo Fire Department; Nanoose Bay, Dashwood, Errington, Coombs-Hilliers and Bow Horn are dispatched by the Campbell River Fire Department

Fire Responses

The number of fire responses is shown in Figure 7. This data shows an increase over the period. It should be noted that the data as provided did not differentiate between the several fire subtypes such as structure fires, chimney fires, vehicle fires, etc.

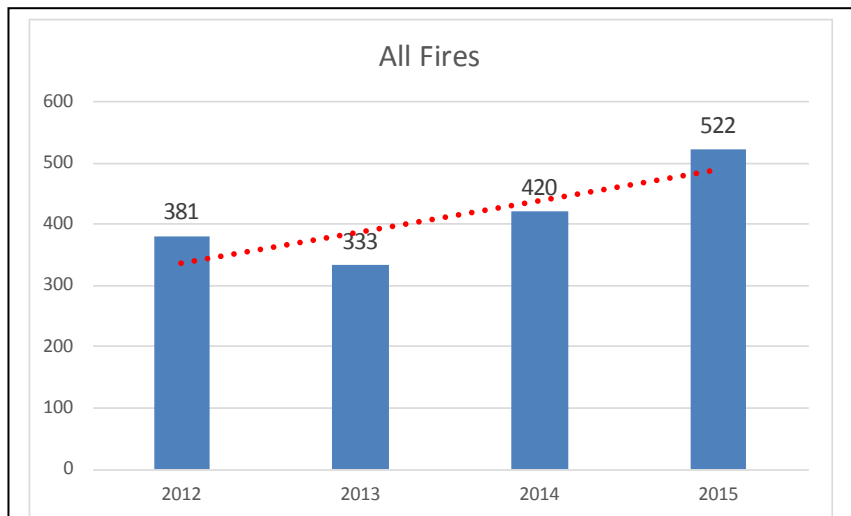


Figure 7: All Fire Responses by Year

FMR Responses

The number of FMR incidents over the period is shown in Figure 8.

This decline in the number of FMR incidents is reflective of changes by the departments in terms of which incidents they would respond to.

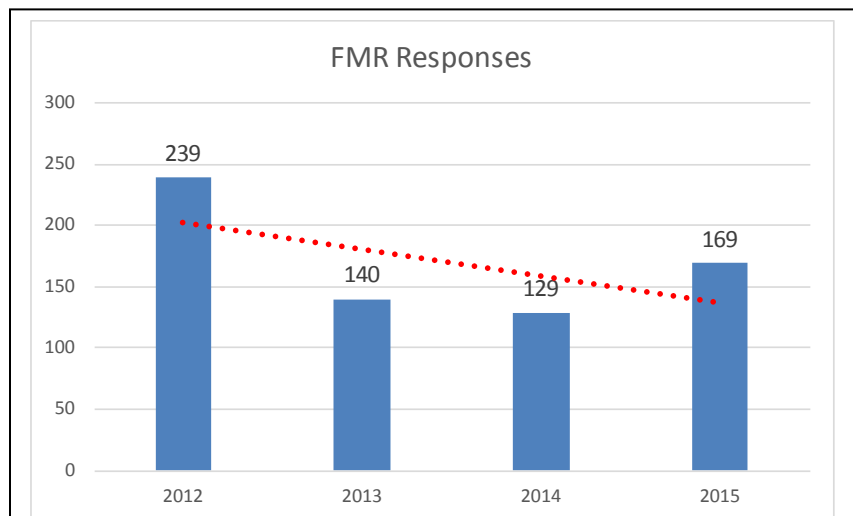


Figure 8: FMR Responses

Extension Volunteer Fire Department

There is less data available for the Extension Department and it can be summarized in Table 2

Type	2010	2011	2012	2013	2014	2015	Grand Total
Alarms Activated	1	2	2	2	4	1	12
Assistance		1	3	4	1	1	10
Burning Complaint	2	5	3	2	6	13	31
Bush Fire	1		4		2		7
Fire - Other		5	6	2	1	6	20
Hazardous Materials		1			1		2
Hydro Lines - Fire			2	1	2	2	7
Medical Aid	2	6	1		3	1	13
Mutual Aid	2					1	3
MVI	4	4	6	10	2	3	29
MVI - Minor					1		1
Rescue						1	1
Structure Fire			1	3		1	5
Trouble/Test - Alarms		2	1	1	4	3	11
Total	12	26	29	25	27	33	152

Table 2

The responses over the six-year period are shown in Figure 9. The incident volume for this Department is low and so a trend is somewhat difficult to determine. With the exception of 2010, responses are between 25 and 33 which suggests an increase; this is particularly the case for burning complaints which have shown a significant jump in the past two years.

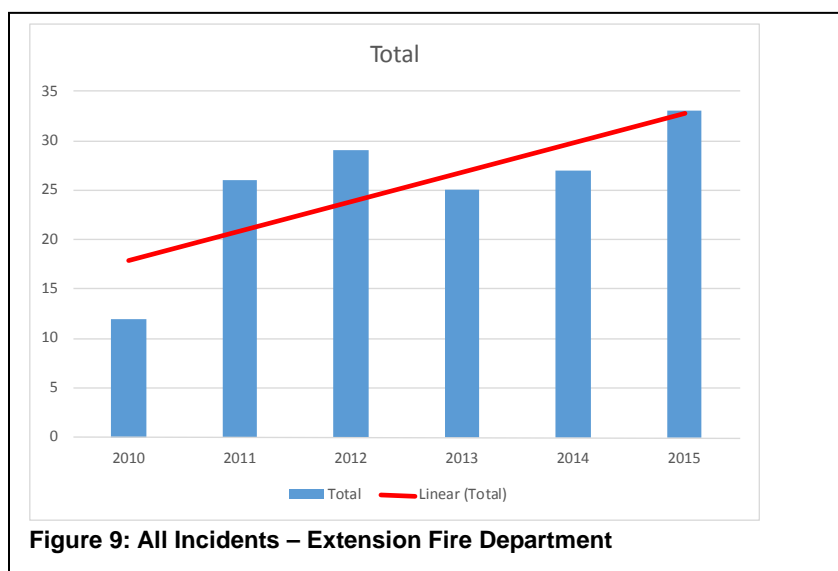


Figure 9: All Incidents – Extension Fire Department

In summary, the number of responses by the fire departments is increasing. For Nanoose Bay, Dashwood, Errington, Coombs-Hilliers and Bow Horn the rate of increase is significant and is reflective principally of FMR and other rescue-type incidents. The number of fires, either structure fires or chimney fires appears to be decreasing slightly over the period being reviewed.

Overview of Results from Fire Department Audits

The on-site fire Department audits were conducted during the week of 7 December 2015 and consisted of an interview with the Department senior staff and an inspection of records, apparatus and equipment, training programs and fire hall and training facilities.

Prior to the scheduled date of inspection, the Fire Chiefs were requested to complete and return a comprehensive questionnaire dealing with all aspects of their respective Departments. The responses provided the Consultants good background information on the Departments and provided the basis for the interviews and on-site inspections. We are pleased to report that we had good cooperation from all of the chiefs during this process and for that we offer our thanks.

From the information gathered during the audit and inspection process an individual report has been created for each of the six Departments. These individual reports can be found as appendices attached to this report.

The following is an overview of the six individual Department reports. It should be noted that many of the following comments should be considered general observations and remarks that affect one or more of the Departments. To determine how one particular Department rated on any one specific issue, the individual Department records should be reviewed.

Organizational Structures

The Society - As discussed previously, all of the Departments are operated by societies; and depending on the establishment bylaw (and individual society bylaws) the societies provide a variety of functions for the Department in question. Two of the Societies are non-reporting and do not handle funds, relying on the Regional District to pay their bills, while some of the Societies are fully reporting and oversee all of their respective Department's funds. Similarly, some of the Societies take an active role in hiring or appointing the local Fire Chief, while others rely on the members to elect their respective officers.

The system of having a society operate the local fire department has been in place for many years in the province. It is unknown exactly how many societies continue to operate fire departments in B.C., but what is known is that the number has reduced considerably in recent years to the point where it is no longer a popular method for providing fire protection services. This is not to say there are not still many active fire department societies within the province, but most have primarily taken on the role of the managing community relations/consultation and the social aspects of their departments as opposed to the operational or managerial roles or direct responsibility for emergency response services.

During our discussions with the individual Fire Chiefs, a question was posed as to whether they believed the role of the society (in an operational/managerial role) was still required. The responses varied from a definitive yes, to a consideration to what would replace them; and finally to a definitive no. During our discussions with the society board members we also heard a variety of responses to a similarly worded question. Some members indicated their specific society was having difficulty getting and retaining members for the board, while others indicated they had the members but questioned whether those members had the qualifications to properly

perform the duties required of a board member. Other members indicated all was well in their respective area but they did have some concerns around the area of not having rules and standard procedures under which the Board operated. It was suggested that the Regional District might consider developing such procedures.

During the facilitated session with the society board members, each participant was asked to share the strengths and weaknesses of their respective Departments. While many of the comments bore out during the actual fire department audit and inspections process, it is interesting to note that several of the responses, especially around training and records, were not accurate reflections of what was actually taking place in the Departments. This may simply be the case of the members not having a full understanding of what is required in these areas; alternately, it raises the question as to whether the majority of society board members have the necessary appreciation of how their Departments are operating. It also raises the question as to what qualifications are needed for the board members, if they are to be able to manage and oversee the operations of a volunteer fire department. The RDN should work with the Societies to determine where their processes are weak, or where they lack the skillsets to provide proper and effective oversight, and help develop those processes and skillsets.

Recommendation: That the Regional District, in conjunction with the Societies and the Fire Departments, undertake a review of the current structure to determine how best to manage the RDN Fire Services into the future and what role the Societies should play.

Recommendation: In the event the above noted review determines to continue to use the society system, the RDN, in conjunction with the Societies, develop policy and procedures outlining how the societies will be managed, how they will report to the RDN and finally, how they will manage their respective fire Departments.

Recommendation: In the event the above noted review determines to continue to use the society system, that the RDN develops a process whereby any Society that determines it is no longer prepared to be responsible for the operational aspects of its Department, can be released of its responsibilities, with the Regional District then assuming such role.

The Department Structure – Each of the Departments has internally developed a similar structure. Each has a fire chief and deputy fire chief, captains and lieutenants. All Departments have a training officer or someone designated as such with a different rank.

The six Departments differ considerably in the level at which their Fire Chiefs operate. The following is a brief summary:

- **Dashwood** - career fire chief and part-time deputy fire chief. Promotions based on open competition and selected by the Society Board.

- **Bow Horn** – volunteer chief and deputy. Both receive an annual stipend. Promotion to Fire Chief by election of members, subject to Society Board approval.
- **Coombs-Hilliars** – career fire chief position (effective 1 January 2016) based on a four-day week. Promotions based on open competition and selected by the Society Board.
- **Errington** – career fire chief. Promotions based on open competition – selection panel made up of the Society Board and other department officers.
- **Extension** – volunteer chief and deputy. No stipend received. Only pay in Department is for attending training night. Promotion based on annual election by the membership.
- **Nanoose** – volunteer chief, deputy and training officer. All receive an annual stipend based on level of training, practice attendance, as well as an incentive component for years of service and attendance. The chief is budgeted for 1,800 hours per year (basically equal to career). Promotion to all positions by membership election.

Having a career fire chief, or in the case of Nanoose whose chief is budgeted considerable hours to undertake his duties, is a distinct advantage for a volunteer department. A career fire chief has the time to deal with issues such as training preparation, record keeping and maintenance of operational guidelines, all which have become mandatory requirements for departments in recent years. In addition to having career chiefs, some of the Departments have allotted funding for administrative assistance to aid with the extra administrative responsibilities. This is a good idea and should be encouraged as it will assist Departments to improve and better maintain their records.

One area of concern is the matter of the election of officers by Department memberships. Of primary concern, and setting aside the issue of potential conflicts of interest, is the matter of electing officers to positions for which they may not be qualified to hold, thereby putting the general membership and the public at risk. We would recommend the following:

Recommendation: That the RDN, in conjunction with Societies and the Departments, adopt a policy setting out the educational and experience requirements for the position of Fire Chief.

Recommendation: That the RDN, in conjunction with the Societies, adopt a policy confirming that promotion to the position of Fire Chief will be held through open competition and subject to meeting the educational and experience requirements.

Recommendation: That the RDN, in consultation with the Societies and Departments, develop standardized proficiency requirements for each officer position within the Departments. Where elections are still used to appoint officers, a member should only be permitted to stand for election if he or she meets the minimum proficiency requirements for such position.

Records

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. It is necessary to meet these obligations to ensure that each Department can properly manage its operations, improve member safety and limit liability concerns for the Department, its society and the RDN. Each individual Department report provides an overview of where that specific Department has met or fallen short of its record keeping requirements.

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, Chad Schapansky, died during an interior attack at a restaurant fire. The WorkSafe BC investigation noted, among other things, that:⁵⁵

- the Clearwater department lacked written operational guidelines governing interior attacks;
- neither the Fire Chief nor the Deputy Chief could prove that they had appropriate incident command training;
- the Clearwater department could produce no training records for accredited training done by the interior attack team, rapid intervention team or fire officers in charge;
- 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.

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 requirements. The Departments should review those requirements and ensure that they are maintaining all of the required records.

Recommendation: The RDN, as AHJ, must ensure that Departments are maintaining adequate records to meet their statutory, regulatory and operational requirements. The RDN should review records keeping processes and requirements with each of its Departments and their Chief Officers. Service contracts with each society should be updated to expressly specify what records must be kept, the manner in which the records are to be stored and how the Departments are to report back to the RDN on the status of their records keeping. Some regional districts have instituted area-wide records keeping systems used by each department for which it is responsible. The RDN may wish to review with its area

⁵⁵ 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.

Departments the prospect for introducing a share records management system.

Operational Guidelines

An effective set of 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. As discussed above, 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 individual Departments, their societies and the RDN.

During the audit process, each Department was requested to provide its operational guideline manuals for review. Dashwood, Nanoose and Errington were able to comply with this request as did Bow Horn Bay after we conducted the on-site visit. Extension is in the process of developing OGs, a selection of which exists in draft form, but they are not yet being used operationally or in connection with the Department's training program. Coombs-Hilliers were unable to comply because they simply did not have OGs. Of the OGs that were submitted for review, Nanoose has the more complete set followed by Dashwood, although even these Departments are missing certain specific required subjects. The Department-specific issues are discussed in the individual Department reports.

In the case of the Departments, developing an effective set of written OGs does not need to be an overly onerous undertaking. There is no need for each Department to start from the beginning in developing these guidelines – rather, it can use OGs developed by other departments within the Regional District or throughout the province as templates. In saying this we caution the Departments to ensure they do not simply adopt other departments' guidelines without first adapting or amending same to their local conditions. Alternatively (and probably preferably), the RDN, in consultation with the Departments, could develop a standardized set of OGs that would be used by all Departments. Specific issues to fit one-off local situations would still be required but the majority of the work could be shared amongst the Departments with RDN acting as the coordinator and providing necessary administrative assistance. Maintenance of the OGs would then be shared, reducing the work for any single Department. A uniform set of OGs also will make it easier to develop a common training program and ensure that Departments are utilizing the same approach when operating under mutual aid or automatic aid agreements.

Recommendation: The RDN, in cooperation with the Departments, ensure that each Department has a complete set of OGs as required by WorkSafe BC, the Playbook and best practices. We would recommend that the RDN and the Departments develop a uniform set of region-wide OGs for use by each Department, to reduce the workload involved and ensure consistency.

Apparatus and Equipment

An inspection and review of each Department's apparatus was conducted as part of the review. In general, 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.

Those Departments that had apparatus nearing, or in some cases, exceeding their Fire Underwriters ("FUS") rateable life span, had plans in place to replace the apparatus in the near future. In the case of Extension, whose pumper is beyond its normal 20-year life span as required by FUS, the Department has made application and received approval to extend that vehicle's life span.

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:⁵⁶

"Exceptions to age status may be considered in a [sic] 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).⁵⁷

Some caveats should be noted. FUS requires that municipalities 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:⁵⁸

"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."

They go on to note, however:⁵⁹

"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

⁵⁶ Fire Underwriters, *Insurance Grading Recognition of Used or Rebuilt Fire Apparatus* (2007), p.3, note 2 (hereafter, *Apparatus Recognition*).

⁵⁷ FUS, *Apparatus Recognition*, p. 5, table 2.

⁵⁸ FUS, *Apparatus Recognition*, p. 2

⁵⁹ FUS, *Apparatus Recognition*, p. 5, table 2, note 4.

extreme: they always travel fully loaded, and in responding to any emergency call, typically are significantly stressed by each use.

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 and WorkSafe BC requirement. During our discussions with the Fire Chiefs it was brought up on several occasions that this is one area where the RDN should take a more active role. More specifically, the RDN has the facilities and qualified personnel to provide maintenance services for the fire apparatus and likely at a lower cost than those provided by outside contractors. We therefore recommend that the RDN and the Departments consider this option and investigate any potential savings that might be found in having the Regional District's (or member municipality) mechanical staff provide maintenance for the Departments' fire apparatus.

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 as discussed previously it is advisable to replace these vehicles before they reach a condition in which their reliability becomes uncertain.⁶⁰ Under the current arrangement, the RDN owns all apparatus and allows the societies, and thereby Departments, full use of the equipment to provide the contracted fire protection services. Replacement of the vehicles from a perspective of what type of vehicle and how they are outfitted is for the most part, left to the Departments. The RDN has provided assistance with writing specifications and the tendering process when requested. The result is a lack of uniformity amongst the Departments in terms of apparatus or equipment. It is also likely that very little in the way of savings in the area of bulk purchases could be achieved under the current system.

From a high level perspective, the RDN has a fleet of 12 pumpers, 11 water tenders and 6 rescue trucks; most of which are a different make and model from the next one. Currently, when replacing each vehicle, an individual specification and tender is written for the particular vehicle based on the input from the particular Department. Whether these specifications are drawn up by RDN staff or the individual Fire Chief, this is a time consuming endeavor which can easily be streamlined, provided there is a willingness to have some uniformity and cooperation in the area of fire apparatus. We recommend that the RDN and the Departments investigate the possibility of creating common fire apparatus specification templates for use in future purchases and that bulk purchasing of apparatus and equipment be considered in the future.

The final issue under this section 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. Each specific item has a different time frame upon which it must be tested; and records of those tests must be kept and be available for inspection in the event of an equipment failure or worse, a firefighter injury or death.

⁶⁰ We have seen occasions where tenders also have been subject to a 20-year life span rating by the Fire Underwriters. Rescue trucks are not rated because they do not, in the Fire Underwriters' view, contribute to fire suppression activities.

While we did not do a detailed review of the equipment testing records during this review, some of the issues that did arise during the on-site visits have been addressed in the individual reports. However, there is a need for all of the Departments to review their individual equipment testing procedures and records keeping procedures, and compare them to the respective NFPA and WorkSafe BC requirements. Any shortfalls should be addressed immediately.

Recommendation: That the RDN in cooperation with the Fire Chiefs, investigate and consider having maintenance and repair of fire apparatus conducted by RDN (or member municipality) mechanical staff.

Recommendation: That the RDN and the Departments investigate the possibility of creating common fire apparatus specification templates for use in future purchases and that bulk purchasing of apparatus and equipment be considered in the future.

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

Fire Hall Facilities

A review of fire hall facilities was conducted during the on-site inspections. The Consultants also reviewed the 2007 Seismic Report on the fire halls produced for the RDN by Johnson Davidson Architecture and Herold Engineering. In addition, we reviewed an internal report from N. Avery, General Manager, Finance & Information Services to C. Mason, Chief Administrative Officer dated 5 April 2009 titled, "Seismic Review of Rural Fire Halls".

Although the original 2007 Seismic Report and the 2009 internal report are now somewhat dated, and several of the recommendations have been since implemented (including the replacement of the Nanoose Fire Hall and the addition of the Dashwood #2 Fire Hall), most of the current fire halls and the condition of those facilities as stated in the reports, are still true today.

Each individual report contains a section dealing with that specific Department's fire hall(s) including the overall condition of the hall, the ability to adequately store all fire apparatus inside, the availability for classroom training space, the facilities within the hall for providing suitable space for storing, repairing and maintaining equipment and finally the availability of health and safety conditions such as proper ventilation, washroom and shower facilities and kitchen facilities.

We recognize that replacing fire halls is an expensive undertaking that requires long term planning. We note that the Ten Year Capital plans for most Departments include either the replacement or refurbishing and seismic upgrading of those fire halls most in need. In general, the RDN has a sound strategy for upgrading and replacing of its fire halls.

Further discussion on the Coombs-Hilliers #1 Fire Hall can be found in the “Review of Other Matters” section of this main report.

Budgets and Finance

Fire departments throughout the country are operating under budget constraints. The services they offer are life-critical and involve material investments in equipment, staffing, technology and training. At the same time, in addition to life-safety issues, there is a hard cost-benefit analysis which is uniquely applicable to the fire service. As a result of the work undertaken by the Fire Underwriters, insurance rates for properties protected by a recognized fire department will be substantially reduced. A well-rated department will save local residents and businesses as much as 50% - 60% on their respective fire insurance rates. The “tax cost” of a fire department, therefore, needs to be considered against the amount residents save on their insurance costs.

An overview discussion can be found in the “Fire Underwriters Survey” section of this main report of how the Fire Underwriters rate fire departments against the risks they protect and the insurance cost reductions which flow from those ratings. This summary on RDN department finance and budgets needs to be considered in the context of that discussion.

During this review, the annual budgets for each Department were examined. The individual reports provide a high level review of each including an overview of the level of annual contribution into capital reserves. There is no real value in providing a comparison of the various budgets since factors such as having or not having career fire chiefs, and the population served (tax base from which to draw) make comparisons difficult.

For most Departments the principal cost drivers are:

- Costs of initial training and on-going training of members;
- Capital costs for major apparatus and equipment (and creation of reserves or amortising of those costs over time for eventual replacement);
- Capital costs for maintaining, upgrading and eventually replacing fire halls; and
- Salaries and benefits for career members.

It should be noted that most fire department equipment has a specified life span. For example:

- Apparatus: 15-20 years as front line equipment; 5 years as reserve;
- Personal Protective Equipment: usually 10 years;
- SCBA: usually 10 years; and
- Fire Hose: usually 10 years.

These capital items can be identified and replacement expressly planned. Ideally, the replacement schedule will be staggered so that some equipment is replaced every year or every other year, to better manage the costs.

One area of note in the overall budgets is the allocation for training. Currently there is considerable variation to the level at which training is being funded in the Departments. It is our experience while conducting many such similar reviews throughout the province that without

adequate funding for training, departments cannot attain the levels of professionalism required of modern volunteer fire services. The simple fact is training costs money and without it, departments are much more likely fail in achieving the required training standards. It is our view that Departments should budget, at a minimum, \$1,500 - \$2,000 per year per member for training. This amount does not include the hourly rate paid for attendance at training sessions which should be budgeted for separately.

As noted in the following section dealing with training matters, the introduction of the Playbook and the need for many of the Departments to increase their levels of training will likely result in a greater time commitment by the members. To ensure continued participation by those members, the RDN in conjunction with the Societies might consider reviewing training compensation levels in order to provide greater incentive and encouragement to members to meet the new standards.

Training Standards and Requirements

Playbook Requirements

Obligation to Establish Service Level

As discussed earlier in this report, the OFC initially issued the Playbook in October 2014.⁶¹ A revised edition of the Playbook was issued in May 2015 and this continues to be the current issue. The Playbook replaces the previous minister's order on training and is binding on all "fire services personnel" in the province. The previous minister's order, MO-368 (December 2002), has been rescinded.

As a result of the Playbook, the RDN 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. Our recommendation is that the Regional District amends the Operational Bylaws to allow the service level to be set by Board policy. This allows greater flexibility than setting the actual service level in the bylaw itself.

In the case of the RDN Fire Services, the declared service level is unlikely to be the same across the entire district. Four of the Departments are anticipating being declared as Interior Operations Level; one Department anticipates being declared as Exterior Operations Level; and one Department anticipates being declared a Full Service department. In saying this it should be noted that declaring a specific service level is not an irrevocable decision and, depending on the circumstances, can be amended to a higher or lower service level at the discretion of the AHJ and in accordance with the level of training within the specific Department. However, the Playbook is clear in that in addition to declaring the level of service, the AHJ is responsible for ensuring the fire department in question has all the required training programs, training records,

⁶¹ Although dated September, the first edition of the Playbook was actually released in October 2014.

operational guidelines and meets all statutory and regulatory requirements. The discussion below, while not exhaustive, provides a general review of the training requirements followed by a high level review of where each Department is in relation to those standards and a recommendation for the initial service level for each.

Training Standards

As already noted, the Playbook is not a complete system – unlike the former Minister’s Order on training, it is not yet all-encompassing. We have recommended above that the training for functions and roles not covered by the Playbook be based on NFPA standards and for the purposes of this section, we will operate on the premise that NFPA standards, which are generally considered the relevant industry standards, apply in matters not specifically covered in the Playbook.

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 requisite minimum training requirements which are identified in the Playbook. For example, to train to the Interior Attack Firefighter one must also complete the training required of the Exterior Attack Firefighter. Similarly, Interior Attack Team Leader training also includes completion of all Exterior Attack Team Leader training. In this way the training is intended to build on that training already completed.

As discussed earlier, the basis for all training outlined in the Playbook is the NFPA standards 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 to be 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”). This program was developed and offered by the Justice Institute of BC (“JIBC”) and

could be taken in a distance learning format (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 JIBC "... allows departments to demonstrate that their fire fighters possess the **minimum** fire fighter skills within NFPA 1001" (emphasis added).

Although BC Basic is aligned with a number of the requirements for Exterior Operations Firefighter, there are some missing components which are now required in the Playbook. The Playbook does, however, contemplate bridging of prior learning or previous training into the new training requirements. Those firefighters who are currently or were previously enrolled in the BC Basic or similar programs, can bridge those courses, provided they meet the criteria and can be shown through adequate training records and evaluation forms, to the Playbook requirements. Similarly, existing officers or those members currently working towards officer positions can have those courses they have currently completed, assessed and bridged to the Playbook requirements. The Playbook provides description of who is responsible to complete these assessments and what qualifications they must possess.

Current Training Levels and Recommended Level of Service

The Consultants did not witness actual operational training of Department members and therefore have relied on a combination of a review of each Department's training records, interviews with the chief officers and a review of each Department's overall operations and structure (including operational guidelines, OH&S programs and pre-fire planning programs) in developing the analysis below.

As discussed earlier in this report, the Playbook requires the AHJ to make a declaration of the level of service a department is to provide by 30 June 2016. The AHJ is also required to ensure that each department has training programs in place which meet both the Playbook Competency Requirements and the other training requirements needed to deliver the services which it is mandated to provide. The Playbook, however, does not say that all Competency Requirements must be met by 30 June 2016 or that all members of a department must be trained to the chosen service level. Indeed, the Playbook specifically contemplates that some departments may have active members who undertake restricted duties or are trained to a lower level of competency, and virtually all volunteer and composite departments will have members at various levels of training as new members join.⁶² In selecting a service level, an AHJ has to be comfortable that the department will, alone or in close cooperation with its neighbours, reliably be able to provide the chosen level of service. What the Departments need to ensure is that, at any given time, there are sufficient members trained (or being trained) to the relevant Service Level requirements to provide the level of service for which the Department has been designated.

⁶² The issue then becomes one of incident command and supervision: firefighters must be tasked only with those responsibilities for which they have been trained. Some departments will have members who only provide support services; others may have members whose responsibilities are limited to first medical responder calls.

On that basis, our recommendations for appropriate Service Levels are based on a combination of where each Department currently is at in its training and competency levels and where they can reasonably be expected to be in the next twelve to eighteen months. The recommendations are also conditioned by the goals set for each Department by their chief officers, as expressed during the interview process.

The RDN will need to provide assistance to its Departments as they work to meet their service level obligations. In particular, various administrative tasks (such as developing and implementing compliant training programs, developing and setting standardized proficiency criteria for different positions within the fire service, developing a compliant set of operational guidelines and compliant OH&S programs, and improving records keeping) would benefit greatly from centralized assistance, facilitation and direction from the RDN. These recommendations, therefore, also assume that the RDN will develop its internal support capacity so that it is better able to assist the area departments as they work to meet Playbook and NFPA requirements. The recommendations also assume that the RDN will take a more proactive role in overseeing the actual level of qualification of its individual Departments, as part of meeting the RDN's obligations as the AHJ under the Playbook.

Bow Horn Bay

The Fire Chief in Bow Horn Bay anticipates that the Department will seek to meet the interior operations service level requirements, and will design its training programs accordingly. The selection of officers for this Department has traditionally been through election by the general Department membership. Currently the Department has no written prerequisites or qualifications for election as an officer.

A review of the Department's current training levels shows eight members (one firefighter and seven officers) who meet the minimum criteria required by the Playbook for interior level operations with ten additional members enrolled in either the NFPA 1001 or the BC Basic program. A similar review of the fire officer or team leader group indicates that two members currently meet the Team Leader competencies and requirements of the Playbook.

Recommendations dealing with the need to set proficiency requirements for officer positions, to develop appropriate operational guidelines, to meet OH&S requirements and to maintain appropriate training records can be found in the Department's individual report as well as in this report.

In addition to the recommendations contained within Bow Horn Bay's individual Department report and those contained within this main report, the Department needs to train up additional firefighters to the Interior Operations Service Level as outlined in the Playbook in order to be able reliably to deliver that level of service.

In addition, the Department should ensure that all officers and those members who will be required to perform the functions of team leader are training to the level of Team Leader – Interior as outlined in the Playbook. We believe that completion of this training can easily be

completed over the coming twelve to eighteen-month period, provided that the members and officers are prepared to commit to obtaining the additional qualifications required.

Assuming the recommendations regarding developing operational guidelines, meeting OH&S requirements and improving training records are put in place, we believe the RDN can be reasonably comfortable in declaring the service level for the Bow Horn Bay Volunteer Fire Department at the **Interior Operations Service Level**.

Dashwood

The Fire Chief in Dashwood anticipates that the Department will seek to meet the interior operations service level requirements, and will design its training programs accordingly. The Fire Chief is a fulltime career member of the Department. Prior to the selection of the current fire chief the selection of officers had traditionally been through election by the general Department membership. This was recently changed to an open competition process with the Society Board selecting the fire chief, with a selection panel made up of the Department's current officers evaluating future officer candidates based on training, ability to do the job and prior commitment to the Department. There are written qualifications for all officer positions within the Department. These qualification requirements should be reviewed against the Playbook to ensure conformity with the Competency Requirements for the interior operations service level.

The review of the Department's current training levels indicated that eight members currently meet the minimum criteria required by the Playbook for interior level operations. The remaining members are currently enrolled in the training necessary to achieve this level. It should be noted that the Department's current training program is the BC Basic program which does not meet all of the Playbook requirements for Exterior Operations Service Level firefighter. The Department is aware of and is addressing this matter by updating its training program.

A similar review of the fire officer or team leader group shows that five members, who include the Fire Chief and Deputy Chief, meet the Playbook requirements for officers and Team Leaders. The Fire Chief indicates that the remaining six officers are currently enrolled in, or are intending to enroll in, the required training.

The Department currently has operational guidelines in place and a functioning OH&S program and joint committee. The Consultants have made recommendations in the individual Department report regarding the operational guidelines. Additional recommendations dealing with the need for appropriate operational guidelines, OH&S program and joint committee requirements and appropriate training records can be found throughout this report.

In addition to the recommendations contained within Dashwood's individual Department report and those contained within this main report, the Department needs to train up additional firefighters to the Interior Operations Service Level as outlined in the Playbook in order to be able reliably to deliver that level of service.

In addition, the Department should ensure that all officers and those members who will be required perform the functions of team leader are training to the level of Team Leader – Interior

as outlined in the Playbook. We believe that completion of this training can easily be completed over the coming twelve to eighteen-month period, provided that the members and officers are prepared to commit to obtaining the additional qualifications required.

Assuming the recommendations regarding operational guidelines, meeting OH&S requirements and improving training records are put in place, we believe the RDN can be reasonably comfortable in declaring the service level for the Dashwood Volunteer Fire Department at the **Interior Operations Service Level**.

Coombs-Hilliers

The Fire Chief in Coombs-Hilliers anticipates that the Department will seek to meet the interior operations service level requirements, and will design its training programs accordingly. Promotion to the position of Fire Chief within the Department is through an open competition process. Members apply for the position, are interviewed by Society Board members with the successful candidate being appointed. Chief Poirier is the first career fire chief that the Department has hired. The Department's current written qualifications for officer positions are in need of updating and are discussed in detail in the individual Department report.

The review of the Department's current training levels indicates that only the Fire Chief currently meets the minimum criteria for Interior Operations Level Firefighter as defined in the Playbook; however, the Deputy Chief, Captains, and several other Department members are nearing this level of qualification.

A similar review of the fire officer or team leader group indicates that three members currently meet the Team Leader competencies and requirements of the Playbook. Specific information on current officer training qualifications was provided by the Department:

- The Fire Chief has completed NFPA 1021 Fire Officer (presumably Fire Officer 1);
- The Deputy Chief and one Captain have also completed NFPA 1021 Fire Officer 1; however, both currently need to complete the NFPA 1001 certification which is a prerequisite to achieving the NFPA 1021 Fire Officer 1 certification.

The Department does not have a formal written OH&S program or formal joint committee. Safety issues are routinely discussed during training session, though no minutes are taken. Recommendations regarding the need for appropriate operational guidelines, WorkSafe OH&S requirements and maintaining appropriate training records can be found throughout this report.

In addition to meeting the recommendations contained within Coombs-Hilliers Department report and those contained within this main report, the Department needs to train up a significant number of additional firefighters to the Interior Operations Service Level as outlined in the Playbook in order to be able reliably to deliver that level of service.

In addition, the Department will need to focus some training resources on its officers and members who will be required to perform the functions of team leader. It will need to significantly increase the number of officers and members trained to the level of Team Leader – Interior as outlined in the Playbook. As part of its focus on increased training, the Department

also needs to materially improve its record keeping practices. We believe that completion of this training can easily be completed over the coming twelve to eighteen-month period, though it will require a significant dedication of time and effort from the Department's members and officers. The Department would benefit significantly from RDN assistance in managing its administrative issues (e.g., OH&S matters and training records).

Assuming the recommendations regarding developing operational guidelines, meeting OH&S requirements and improving training records are put in place, we believe the RDN can be reasonably comfortable in declaring the service level for the Coombs-Hilliers Volunteer Fire Department at the **Interior Operations Service Level**.

Errington

The Fire Chief in Errington anticipates that the Department will seek to meet the interior operations service level requirements, and will design its training programs accordingly. Promotion to the position of Fire Chief within the Department is by a standard open competition basis. A selection committee, comprising Society Board members and Department officers, conduct interviews and make recommendations. Final approval for hiring the Fire Chief lies with the Board. According to the Fire Chief, qualifications for the position and that of the deputy chief are currently under review and will be formalized in writing in the near future. Upon a review of the Department's current training levels, only one member meets the minimum criteria for Interior Operations Level Firefighter as defined in the Playbook; however, about 13 members are at various levels of the Department's basic recruit firefighter training program, including those still on probation. The Department has been advised to begin to transition their current basic program to align with that of the Playbook requirements.

A similar review of the fire officer or team leader group indicates that none of the officers currently meet the Team Leader competencies and requirements of the Playbook. The Department should undertake a gap analysis review to determine what modules or portions of the Playbook (and NFPA standards) are missing, and develop a training program to enable their officers to bridge the gaps in their formal qualifications. Alternatively, the Department may wish to consider using a formal prior learning assessment process (as outlined in the Playbook) to determine whether some or all of the existing officers meet Playbook requirements based on experience and capabilities.

The Department does not have a formal written OH&S program however they do have a formal OH&S committee. Monthly meetings are conducted and minutes are posted in the fire hall. Recommendations dealing with the need for appropriate operational guidelines, WorkSafe OH&S requirements and maintaining appropriate training records can be found throughout this report.

In addition to the recommendations contained within the Errington Department report and those contained within this main report, the Department must train up a significant number of firefighters to the Interior Operations Service Level as outlined in the Playbook in order to reliably provide that level of service. As to the fire officer or team leader level, the Department should ensure that all officers and those members who will be required to perform the functions

of team leader are training to the level of Team Leader – Interior as outlined in the Playbook. In addition, the Department needs to improve their record keeping practices. We believe that completion of this training can easily be completed over the coming twelve to eighteen-month period provided that the members and officers are prepared to commit to obtaining the additional qualifications required. The Department would benefit significantly from RDN assistance in managing its administrative issues (e.g., OH&S matters and training records).

Assuming the recommendations regarding developing operational guidelines, meeting OH&S requirements and maintenance of training records are put in place, we believe the RDN can be reasonably comfortable in declaring the service level for the Errington Volunteer Fire Department at the **Interior Operations Service Level**.

Extension

The Fire Chief in Extension anticipates that the Department will seek to meet the exterior operations service level requirements, and will design its training programs accordingly. The selection of all officers in the Department has traditionally been through an annual election by the general membership. There currently are no written proficiency or qualification requirements for election to an officer position within the Department.

For the most part, the Department uses the JIBC's Basic Firefighter training program as the basis of their training. The Fire Chief, Deputy Fire Chief and one other member have completed this program. As noted previously, the BC Basic Program does not fully meet the Playbook requirements for exterior service level.

As part of the Departments re-design of its training program to meet the exterior service level qualifications, it should consider undertaking a gap analysis to determine what modules or portions of the Playbook (and NFPA standards) are missing, and develop a training program to enable their officers and members to bridge the gaps in their formal qualifications. Alternatively, the Department may wish to consider using a formal prior learning assessment process to determine whether some or all of the existing officers meet Playbook requirements based on experience and capabilities. As it stands, none of the Departments members currently meet Playbook requirements for exterior operations level.

The Department is in the process of developing operational guidelines, a selection of which exist in draft form, but they are not yet being used operationally or in connection with the Department's training program. The Department does not have a formal written OH&S program although they do conduct monthly safety committee meetings and record minutes of same. Recommendations regarding the need for appropriate operational guidelines, OH&S requirements and maintaining appropriate training records can be found throughout this report.

In addition to the recommendations contained within Extension's individual Department report and those contained within this main report, the Department will have to train up a significant number of its firefighters to meet the Exterior Operations Service Level as outlined in the Playbook. In addition, the Department will need to focus some training resources on its officers and members who will be required perform the functions of team leader. It will need to

significantly increase the number of officers and members trained to the level of Team Leader – Exterior as outlined in the Playbook. As part of its focus on increased training, the Department also needs to materially improve its record keeping practices. We believe that completion of this training can be completed over the coming twelve to eighteen-month period, though it will require a significant dedication of time and effort from the Department's members and officers and considerable support from the RDN. Additionally, the Department would benefit significantly from RDN assistance in managing its administrative issues (e.g., OH&S matters and training records).

Assuming the recommendations regarding developing operational guidelines, meeting OH&S requirements, improving training records and improved training programs (which meet the Playbook requirements) are put in place, we believe the RDN can be comfortable in declaring the service level for the Extension Volunteer Fire Department at the **Exterior Operations Service Level**.

Nanoose

In discussion with the Fire Chief, the Department anticipates being declared an interior or full service operation level Department. Promotion to the positions of Fire Chief, Deputy Fire Chief and Training Officer/Deputy Chief within the Department are on the basis of an election by the membership. While there are written qualifications for these three positions, the Department should consider revising these to better align with the Playbook. There are also written qualifications for the Captain and Lieutenant positions.

Upon a review of the Department's current training levels, and discussion with the Fire Chief, some 12 of the 23 active members meet the minimum criteria required by the Playbook for interior level operations, with 8 of the remaining members only requiring completion of Live Fire 1 and/or 2 to meet these requirements. Similarly, based on the documentation provided, the Department has nine members that meet the Playbook requirements for Team Leader for Interior Service Level operations. The Department should be congratulated on achieving this high level of training.

The Department has a very good operational guidelines manual. Recommendations for additional guidelines are contained within the individual report. The Department has a written OH&S program and a formal committee. Safety issues are routinely discussed during safety meeting and minutes are taken and posted in the fire hall. Recommendations dealing with the need for appropriate operational guidelines, WorkSafe OH&S requirements and maintaining appropriate training records can be found throughout this report.

In addition to the recommendations contained within Nanoose Department report and those contained within this main report, the Department must continue to train those firefighters that have not yet met the Interior Operations – Firefighter to this level. In addition, the Department should continue to ensure that all officers and those members who will be required to perform the functions of team leader are training to the level of Team Leader – Interior as outlined in the Playbook.

Assuming the recommendations dealing with operational guidelines are put in place, we believe the RDN can be comfortable in declaring the service level for the Nanoose Volunteer Fire Department at the **Interior Operations Service Level**.

Role for the RDN

As noted above and elsewhere in this report, there is much to be accomplished by the Departments over the next twelve to eighteen months to ensure compliance with the Playbook. In our experience, this is unlikely to occur under the current system where the Societies and Departments have lacked support or assistance from the RDN or without some formal level of organizational structure and direct accountability. Given that the RDN is the AHJ and has direct responsibility to ensure compliance and the resulting liability which could result for non-compliance; it is imperative that they take the lead in resolving the Departments' shortcomings.

Currently, Wendy Idema, the Director of Finance has responsibility for oversight of the fire services within the RDN. How overseeing the fire services became part of the Finance Director's job portfolio is not clear. Prior to the current appointment, the previous General Manager of Finance was charged with these responsibilities. Clearly, whoever has been assigned the role overseeing the fire services has been required to perform this task in addition to their regular job -- in essence, "off the side of their desk". Also, neither individual had any formal background or experience in managing fire services. We certainly do not presume to cast blame on any one person for the current situation; rather we suggest the cause of the problem is that the organizational structure and oversight model did not fully keep pace with the growing responsibilities related to properly managing a multi-department fire service. When these departments first developed -- many as far back as the mid-1960s, it was common for local government to adopt a hands-off approach to operations and oversight. As the regulatory and administrative requirements involved in operating a fire department became increasingly demanding, local governments have had to adjust their approach. Increasing attention to proper risk management, and the recent introduction of the Playbook which formalizes the obligations of local governments in relation to their fire departments, have combined to underscore the need to ensure that properly qualified individuals are appointed to oversee, manage and, where appropriate, direct the fire services.

We recommend that a new position be created within the RDN with the title of Fire Services Coordinator (the "FSC") and that the primary role of this position be coordination and oversight of the RDN fire services. Similar positions exist throughout the province and the duties assigned and the authority vested to those individuals varies by jurisdiction and the needs of that specific area. In the Regional District of Fraser Fort George for example, the FSC plays the role of a coordinator, assisting the area fire departments with budgets, purchasing, OGs, maintaining records, etc. In another example the FSC in the Regional District Central Kootenay operates as a regional fire chief and has direct authority over the fire departments and how they operate.

In the case of the RDN we suggest that initially the FSC role be that of coordination and oversight. Coordination - to work with the Departments in such areas as developing regional OGs, developing standard training programs and sharing training resources, assistance with

recruitment and retention, assisting with apparatus tendering and bulk purchasing, etc. Oversight – to ensure that Departments are doing the required training, maintaining the required records, operating safely and effectively at fires. We do not envision the FSC responding to emergency incidents with the individual Departments on a regular basis, nor do we envision the FSC assuming control or over ranking Department Fire Chiefs; we do however believe that the FSC should have the training and experience to assume the role of an incident commander if so requested by a local fire chief, or during the event of a major regional disaster such as wildfire, flooding or earthquake. Funding for the position of FSC should be shared equally between all electoral areas within the RDN funded fire services.

Recommendation: That the RDN consider the creation of a Fire Services Coordinator position within the Regional District; and that prior to filling the position, the RDN in conjunction with the Fire Chiefs, jointly develop the job functions and primary roles for the position.

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 an issue in the Fire Services Liaison Group report, *Public Safety in British Columbia: Transforming the Fire Service* (2009),⁶³ and has universally been identified as a problem by each of the volunteer-based services with whom we have worked over the past decade or more.⁶⁴ 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 to 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 NFPA 1001 standards 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

⁶³ The report examined the challenges facing the fire services generally in the province. See recommendation 4, on pp. 20 ff.

⁶⁴ 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.

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 the fire department acting in tandem.

In the RDN's current system, the Fire Chiefs are primarily responsible for recruitment. Many find the recruiting process to be a significant challenge.

The existing approach to recruitment needs to be reviewed. The RDN needs to become more proactive in seeking volunteers for the fire services, if those services are to be maintained. The Regional District needs to assist the Departments with developing and managing an effective public relations / public information campaign to attract and retain new members.

Some specific issues to be considered include the following:

1. Reviewing remuneration practices for volunteer members;
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 the 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”; and
7. Hiring at least one person to assist with the Departments’ administrative requirements.
8. Providing certified training to those 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, compensation can make a considerable difference in the area of retention of members, particularly as the demands placed on them (e.g., increased training requirements or administrative duties) increase. Based on our discussions with the Departments during the on-site sessions, there appears to be considerable difference in the rates of pay for practices and responses. It is useful to review whether the compensation members receive for the time commitment required is sufficient to ensure they are not out-of-pocket as a result of time spent training or providing services to the Department, and are adequately compensated for any day-time responses, if those responses result in a loss of wages. It also is important to review how each Department manages its essential administrative functions and to ensure that members are compensated if they actively and regularly provide such support services.

Where one or more of the Departments is having to concentrate on upgrading or confirming skill and proficiency requirements, attention also should be paid to ensuring that the members who are being asked to commit even more time to their respective Departments, are compensated for the extra effort. This approach will mitigate some of the concern that likely will surface, particularly for long serving personnel who need to cover “formal” gaps in their records (either through additional courses or a prior learning assessment).

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 RDN to assist the Departments in these efforts, both by helping to develop and implement any media campaigns, 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.

Some volunteer departments 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. It is noted that some departments in other regional districts have already adopted this approach.

“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 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.
2. Rewarding the employer for participation. This reward can be tangible (e.g., a partial reimbursement of wage expense), intangible (express public recognition by the RDN 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.

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 of 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.

Work Experience Program

One option that may assist in addressing staffing shortage is the introduction of a “work experience program” (“WEP”). In British Columbia, the creation of WEPs has principally been 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.⁶⁵ WEP appointments typically lasts 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.⁶⁶ 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 Regional District. The issue of providing or arranging accommodation for the WEP members would require fire hall modifications.

There clearly will be an additional cost to operating a WEP⁶⁷ and the Departments will 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 an additional cadre of NFPA 1001 trained firefighters.⁶⁸

Certified Training

The majority of 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 one of the many institutions located across Canada and the United States and pay several thousand dollars in tuition fees.

⁶⁵ Typically, in resort communities the WEP members are also hired as staff members at the resort.

⁶⁶ The Town of Creston rolled out a WEP in autumn 2014.

⁶⁷ 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.

⁶⁸ One of the tasks often assigned to WEP members is responsibility for assisting with the training of the POC members.

Completion of the program does not guarantee a job, but merely entitles them to 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. In addition, 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 complained 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 young and healthy men and women 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. In fact, the Playbook now requires that departments provide NFPA-based training. The only issue required of the Departments would be a commitment to provide “certified” 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, 3-6 years). The arrangement would provide well trained staff while they were with the Department, allow 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 RDN, should review the compensation received by volunteers for attendance at practices and when responding to emergency incidents to ensure it is fair; and that a regional policy for reimbursement of members out of pocket expenses, including wage losses, is developed.

Recommendation: The Departments and the RDN 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 RDN 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 RDN 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 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 RDN should consider developing a career pre-employment training program.

Fire Underwriters Survey

This section will examine the role and importance of Fire Underwriters' reviews, and provide a brief background on the methodology employed and importance of such surveys to residents in each Department's fire protection area. In connection with the current review, the Consultants were provided with only one FUS review, related to the Nanoose service area. This review was considered in the individual Department report. It should be noted that the Nanoose Department scored well for a volunteer department. However, 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 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 Municipal Consulting services (formerly, SCM Risk Management Services Inc.). It has a number of earlier incarnations – it was formerly CGI Insurance Business Services, the Insurers' Advisory Organization and Canadian Underwriters Association – but in each instance, the organization was, and we believe 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.⁶⁹ The DPG rating generally applies to single family detached residences⁷⁰ while the PFPC rating

⁶⁹ 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 that the two ratings will be combined so that only a single rating system exists, covering both residential and commercial/multi-family properties.

⁷⁰ 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 March 2016.

covers commercial, industrial and institutional buildings and/or districts, or multi-family residential complexes and generally is applied by the “commercial lines” arm of the insurance industry.⁷¹

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 maintain an FUS-rated fire department is the trade-off between the taxes needed to pay for the department, versus the saving on insurance costs.

With a well-rated fire department, the saving in 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.⁷²

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

⁷¹ Fire Underwriters Survey website, “What is the PFPC” at http://www.fireunderwriters.ca/pfpc_e.asp , accessed on 26 March 2016.

⁷² The rating system is described in greater detail in the next section. ***It must be stressed that the actual cost for 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 incorporates the value of the land as well and the insurance value is based on the cost of building a replacement structure).

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 straight-line 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, and is worthy of consideration on a hard cost-benefit analysis (i.e., amount required to be invested in improving the service, versus saving for owners of commercial, industrial and multi-family properties).⁷³ Below PFPC 4, the amount required to be invested to obtain the improved rating likely will outweigh any insurance savings.

⁷³ 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.

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. Thus, depending on the size and nature of the service area, the benefits may not be equally enjoyed by all ratepayers.

Methodology Employed

Overall Ratings Weighting: The FUS ratings are weighted against the following four areas of assessment:⁷⁴

- 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.

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., an aerial device) depending on its assessment of the community's fire risks.⁷⁵

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".⁷⁶ Where no hydrant system is present or where the hydrant system only covers a portion of the fire protection area, FUS 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.

⁷⁴ This information is based on various FUS reviews we have examined in work for other clients

⁷⁵ 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.

⁷⁶ 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 March 2016.

The “Fire Safety Control” category covers fire prevention programs/public education, fire inspections and building/fire code and bylaw enforcement. FUS will look at whether local government is making effective use of these tools in managing the level of fire risk throughout the fire protection area.

The “Fire Service Communications” category involves an assessment of dispatch services, paging systems and radio communications.

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, while the PFPC rating is based on a 10-point scale. In both cases, a “1” is the highest rating achievable. In simplest terms, the goal of an FUS review is to provide insurance companies with a grading of fire protection services provided across a 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).⁷⁷ It is up to individual insurance companies to determine what weight they give the FUS grading when determining insurance rates.

DPG Rating. In essence, for residential homeowners the rating system is from 1 – 5 (where “1” is best), with a split at “3”, where “3A” means there is an approved hydrant or water supply system, and “3B” means 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.

⁷⁷ 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 on 26 March 2016.

DPG Rating	Insurance Status	Comment
3A; 3B(S) ⁷⁸	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% versus communities which are “unprotected”.⁷⁹ 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 8 km., so that residents outside of the 8 km. zone did not receive the benefit of a reduced insurance rate. One councilor was paying over \$3000 for fire insurance, while the other was paying less than \$1000 – in relation to properties that the two agreed were otherwise broadly similar.⁸⁰

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

- residents must live within 8 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).⁸¹

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

⁷⁸ 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.

⁷⁹ 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).

⁸⁰ The example also illustrates a problem where the financial benefits of having a fire department are not equally enjoyed by all taxpayers.

⁸¹ 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 26 March 2016.

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 7.⁸² 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:⁸³

1. Fire Risk, including analysis of required fire flows for individual buildings, building groups and zones of similar risk (Fire Flow Demand Zones) of the community;
2. Fire Department, including apparatus, equipment, staffing, training, operations and geographic distribution of fire companies;
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:⁸⁴

"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

⁸² 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.

⁸³ From: Fire Underwriters Survey website, “How the PFPC grading system works”, at http://www.fireunderwriters.ca/pfpc_e.asp, accessed on 26 March 2016.

⁸⁴ From: Fire Underwriters Survey website, “Split Classifications”, at: http://www.fireunderwriters.ca/pfpc_e.asp, accessed on 26 March 2016.

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,⁸⁵ 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, etc.).

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. From a financial perspective, however, it also is critical to understand that a fire department which is well rated by the Fire Underwriters will result in reduced insurance costs for both residents and commercial undertakings. The savings on insurance will typically more than cover the cost of maintaining the fire department – particularly where the service is provided by a volunteer or composite department. There is therefore a good business case for investing in the fire department to maintain and, potentially, to improve a service area's fire insurance rating. However, before undertaking a Fire Underwriters' review, it is critical that the fire department and RDN staff thoroughly understand the basis on which these types of reviews are conducted.

Review of Other Matters

The Cassidy-Waterloo Fire Protection Area

Currently the Cranberry Volunteer Fire Department (the "CVFD") provides fire protection services to the Cassidy-Waterloo Fire Protection Area under contract with the RDN. Prior to the CVFD, the Oyster River Volunteer Fire Department provided these services under a similar contract.

While not part of the original scope of work, the Consultants were requested to meet with both Ron Gueulette, Fire Chief of the CVFD, and some representatives of the Hallberg Fire Hall. The RDN-owned fire hall is located near the Nanaimo Airport and is operated by the CVFD to provide fire protection to the Cassidy service area. The general context of the meeting (from the RDN's perspective) was to consider how the fire service in that area is operating in general and whether the RDN should continue to contract out the fire protection services to CVFD or look at other approaches to provide that service.

At the outset of this discussion it must be noted that we have not done a full operational review of the CVFD. As such, we are not in a position to report in any detail on the level or quality of fire service being provided to the service area or the level of training competency those

⁸⁵ 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).

members currently meet other than what we have learned through our discussions with Chief Gueulette and the representatives from the Hallberg Fire Hall.

During our discussions with Chief Gueulette, he indicated the CVFD's training level varied, ranging from the BC Basic program to some full NFPA 1001 FF 1 qualifications. The Chief indicated they do very little interior firefighting but in his opinion the Department's service level should be declared at the Interior Operations Level. He acknowledged that there had been some unhappiness with the level of department training from some members from the Hallberg Fire Hall, but that he was trying to address that and he tried to treat the halls as one department. While we did not view training records – the Chief indicated that there had been a problem with the JIBC's training data base recently, and they were having difficulty obtaining previously completed training – from the Fire Chief's brief description of the CVFD's current level of training, it is unlikely they currently are operating at the Interior Operations Level.

Most of the CVFD's training takes place at the Cranberry Fire Hall, which means the Hallberg Hall members must travel each night for training. During our discussions with the Hallberg Hall representatives, some concerns were voiced about the overall level of commitment to training in the CVFD.

One matter that did raise concern was the question of possible alcohol consumption at the Cranberry Fire Hall on practice nights. The consumption of alcohol at fire halls, other than on social occasions such as Christmas parties, while prevalent in the past, is no longer looked upon as an acceptable practice and has been discontinued in most departments throughout the province. The potential for liability is high and increases the risk that a member might respond to an emergency incident while under the influence of alcohol, which is extremely dangerous both for that individual and those who are working with him or her, as well as for the residents who are in need of assistance. We are certainly not suggesting that this has occurred with the CVFD, but the potential is clearly there.

The possibility of the Hallberg Hall members forming a separate volunteer department was discussed both with the Cranberry Fire Chief and the Hallberg representatives. According to the Hallberg representatives, while not certain, they believed there would be general support amongst the group if that option arose. Chief Gueulette indicated that if that was the general wishes of those members, he would certainly support it and be prepared to work with them to set it up. It should be noted that was not something brought up by either group but rather the result of enquiries made by the Consultants.

The option to form a separate department is certainly something the RDN should consider. Under the current system, the RDN has little or no say in how the CVFD operates and what levels of service they provide the residents of the Cassidy-Waterloo service area, other than through the service contract which is reviewed every five years. At the same time, establishing a separate department is major step, and will require detailed consideration by the RDN, in consultation with the Hallberg Hall members and the CVFD.

Recommendation: Prior to renewing the Fire Services Agreement with the CVFD for fire protection services in Cassidy-Waterloo service area, the RDN should

review the feasibility of creating a separate fire service for that area. Alternatively, the renewal agreement should provide for a reasonable termination period in the event that the stakeholders and RDN determine that a separate fire department should be created.

Recommendation: That the RDN follow up with the CVFD regarding possible alcohol consumption at the Cranberry Fire Hall on practice nights to confirm process and discuss insurance implications.

The Potential for Merger of Errington and Coombs-Hilliers Departments

The Scope of Work for this project included an assessment of recommended future service levels in each fire service area based on the nature of each community served in terms of development and infrastructure as well as fire department capacity and budget.

During our review it became apparent that for the Errington and Coombs-Hilliers Departments, which are located within close proximity to each other and share the same Electoral Area Boundaries, there exists an opportunity to merge and become a single department. Properly managed, we believe that a merger of the Departments would enable them to provide the same or a better level of service than they currently do, potentially at a lower cost to the communities they serve.

Currently the two Departments operate four fire halls between them. According to the 10-year capital plan, the Errington #2 Fire Hall is planned to be replaced in 2019-20, while the Coombs-Hilliers #2 Fire Hall is scheduled for rebuilding in 2019-2020. The Coombs-Hilliers #1 Fire Hall (located in the Village of Coombs) is currently owned by the Farmers Institute and leased to the RDN for \$1 per year. While there are no plans to replace the building, it has far exceeded its useful lifespan and is no longer suitable for use as a fire hall. At some point in the near future, consideration and planning should be directed to either replacing or abandoning this building. We have reviewed the coverage requirements for the service area currently protected by Coombs-Hilliers #1 Fire Hall and have determined that the FUS requirements would be met by responding with the Errington Hall #1 Fire Hall in combination with Coombs-Hilliers #2 Fire Hall to this area. The coverage maps that demonstrate this coverage can be found in Appendix 3: Coverage Options for Coombs-Hilliers.

Each of the halls is equipped with, at a minimum, an engine and a water tender. Both Departments operate and equip a rescue truck. Errington has 23 active responding members and Coombs-Hilliers has 26. The FUS requirements for a two fire hall department are 25 active responding members. Errington does not currently meet that requirement (although they do currently have some probationary members whom they hope will graduate to active responding members) and Coombs-Hilliers is one member over the current minimum required strength.

Individually, both Departments require their two fire halls to meet the FUS requirements of being within 5 kilometers for commercial properties and 8 kilometers of residential properties. However, when combined into one Department, and after removing the Coombs-Hilliers #1 Fire

Hall, the remaining three fire halls still meet the FUS requirements for the 5 and 8 kilometre travel distances. In addition, the remaining three engines and water tenders meet the FUS pumping requirements.⁸⁶

While we understand that there have been some issues between these two Departments in the past, according to both Fire Chiefs, they now have a good working relationship. Clearly a merger between these two Departments is not something that should be considered in haste or without considerably more investigation. However, we do suggest that prior to any major apparatus purchases or major capital spending on buildings taking place, a review of the feasibility of a merger be considered.

Recommendation: That the RDN in cooperation with the Errington and Coombs-Hilliers Departments, conduct a review of the feasibility of merging the two fire service areas and departments into a single area and department.

Summary of Recommendations

Legal Structures: Bylaws, Service Agreements & Mutual and Automatic Aid Agreements

1. The RDN, in consultation with the Departments and their respective societies, should review the bylaw structure, service contracts and mutual and automatic aid agreements based on the issues identified in this section on organizational and legal structures. In particular, the RDN should consider:
 - (a) developing a standard operational bylaw authorizing the services provided by the Departments and empowering them to operate at an emergency scene, and providing a process for service level establishment (and revision);
 - (b) reviewing and updating each service agreement with the relevant societies to address Playbook matters and related reporting requirements;
 - (c) review and update, with the partner local governments and societies, the mutual and automatic aid agreements currently in use.

Joint Health and Safety Committee

2. Having a formal written OH&S program, having a formal joint committee (or worker representative), conducting regular meetings and posting minutes of those meetings is a mandatory requirement of WorkSafe BC. We strongly recommend that the RDN ensure that any societies and Departments not in compliance with these requirements undertake the work necessary to meet their obligations under the WCA and related regulations.

⁸⁶ This assumes that there are no particular risks which would result in an elevated pumping capacity, as can occur when there are high hazard risks within a fire service area (e.g., major industrial undertakings, multi-storey high rises, etc.).

Organizational Structures

3. That the Regional District, in conjunction with the Societies and the Fire Departments, undertake a review of the current structure to determine how best to manage the RDN Fire Services into the future and what role the Societies should play.
4. In the event the above noted review determines to continue to use the society system, the RDN, in conjunction with the Societies, develop policy and procedures outlining how the societies will be managed, how they will report to the RDN and finally, how they will manage their respective fire Departments.
5. In the event the above noted review determines to continue to use the society system, that the RDN develops a process whereby any Society that determines it is no longer prepared to be responsible for the operational aspects of its Department, can be released of its responsibilities, with the Regional District then assuming such role.
6. That the RDN, in conjunction with Societies and the Departments, adopt a policy setting out the educational and experience requirements for the position of Fire Chief.
7. That the RDN, in conjunction with the Societies, adopt a policy confirming that promotion to the position of Fire Chief will be held through open competition and subject to meeting the educational and experience requirements.
8. That the RDN, in consultation with the Societies and Departments, develop standardized proficiency requirements for each officer position within the Departments. Where elections are still used to appoint officers, a member should only be permitted to stand for election if he or she meets the minimum proficiency requirements for such position

Records

9. The RDN, as AHJ, must ensure that Departments are maintaining adequate records to meet their statutory, regulatory and operational requirements. The RDN should review records keeping processes and requirements with each of its Departments and their Chief Officers. Service contracts with each society should be updated to expressly specify what records must be kept, the manner in which the records are to be stored and how the Departments are to report back to the RDN on the status of their records keeping. Some regional districts have instituted area-wide records keeping systems used by each department for which it is responsible. The RDN may wish to review with its area Departments the prospect for introducing a shared records management system.

Operational Guidelines

10. The RDN, in cooperation with the Departments, ensure that each Department has a complete set of OGs as required by WorkSafe BC, the Playbook and best practices. We would recommend that the RDN and the Departments develop a uniform set of region-wide OGs for use by each Department, to reduce the workload involved and ensure consistency.

Apparatus and Equipment

11. That the RDN in cooperation with the Fire Chiefs, investigate and consider having maintenance and repair of fire apparatus conducted by RDN (or member municipality) mechanical staff.
12. That the RDN and the Departments investigate the possibility of creating common fire apparatus specification templates for use in future purchases and that bulk purchasing of apparatus and equipment be considered in the future.
13. That the Departments review their individual equipment testing procedures and record keeping procedures, and compare them to the respective NFPA and WorkSafe BC requirements. Any deficiencies should be addressed immediately.

Training Standards and Requirements: Role of the RDN

14. That the RDN consider the creation of a Fire Services Coordinator position within the Regional District; and that prior to filling the position, the RDN in conjunction with the Fire Chiefs, jointly develop the job functions and primary roles for the position.

Volunteer Recruitment and Retention

15. The Departments, in cooperation with the RDN, should review the compensation received by volunteers for attendance at practices and when responding to emergency incidents to ensure it is fair; and that a regional policy for reimbursement of members out of pocket expenses, including wage losses, is developed.
16. The Departments and the RDN 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.
17. The RDN 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.
18. The Departments and the RDN 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 emergency responders, at a far lower cost than hiring career firefighters.
19. 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.
20. The Departments in consultation with the RDN should consider developing a career pre-employment training program.

Review of Other Matters

21. Prior to renewing the Fire Services Agreement with the CVFD for fire protection services in Cassidy-Waterloo service area, the RDN should review the feasibility of creating a separate fire service for that area. Alternatively, the renewal agreement should provide for a reasonable termination period in the event that the stakeholders and RDN determine that a separate fire department should be created.
22. That the RDN follow up with the CVFD regarding possible alcohol consumption at the Cranberry Fire Hall on practice nights to confirm process and discuss insurance implications.
23. That the RDN in cooperation with the Errington and Coombs-Hilliers Departments, conduct a review of the feasibility of merging the two fire service areas and departments into a single area and department.

Appendix 1: Sample Service Level Policy

Note: this sample form of policy assumes that the “Interior Operations Service Level” will be established for most of the Fire Departments. If that is not the case, then use of two schedules – one for Exterior Operations Service Level departments and one for Interior Operations Service Level departments – will be necessary.

Service Level Policy for RDN Fire Departments

WHEREAS the Office of the Fire Commissioner has established minimum training standards for fire services personnel in the province under and in accordance with paragraph 3(3)(b) of the *Fire Services Act* (B.C.) in the form of the Playbook;

AND WHEREAS the Playbook requires that the “Authority Having Jurisdiction” (as that term is defined in the Playbook) over a fire department must establish the service level to be provided by that department;

AND WHEREAS the Regional District is the Authority Having Jurisdiction over the Fire Departments;

AND WHEREAS under the Operational Bylaw, the Regional District has the authority to establish policies binding on the Department, its Members and its operations;

NOW THEREFORE the following Service Level Policy is established in relation to the Fire Departments:

1. Definitions. The following capitalized terms shall have the following respective meanings, including in the recitals to this Service Level Policy:
 - (a) “Exterior Operations Service Level” means the Exterior Operations Service Level as defined in the Playbook;
 - (b) “Fire Chief” means the individual who has been appointed as the fire chief of each Fire Department in accordance with the [Operational Bylaw and policies made thereunder];
 - (c) “Fire Departments” means **[list the RDN Departments]**;
 - (d) “Fire Services Coordinator” means the individual appointed by the Regional District as the Fire Services Coordinator from time to time under the Operational Bylaw;
 - (e) “Incident” has the meaning ascribed thereto in the Operational Bylaw;
 - (f) “Interior Operations Service Level” means the Interior Operations Service Level as defined in the Playbook;

- (g) “Member” means a firefighter in any of the Fire Departments and includes the Fire Chief and officers;
 - (h) “NFPA” means the National Fire Protection Association;
 - (i) “Operational Bylaw” means **[identify updated Operational Bylaw]**;
 - (j) “Playbook” means the mandatory minimum training standards set under paragraph 3(3)(b) of the *Fire Services Act* (B.C.) by the Office of the Fire Commissioner and approved by the Minister of Justice, entitled *British Columbia Fire Service Minimum Training Standards: Structure Firefighters – Competency and Training Playbook* (2nd Edition, May 2015), as same may be amended, revised or replaced from time to time;
 - (k) “Principal Responding Members” means those Members expected to undertake interior fire suppression and/or rescue operations;
 - (l) “Regional District” means the Regional District of Nanaimo; and
 - (m) “Service Level Policy” means this policy, as same may be amended from time to time by the Regional District.
2. Authority and Application. This Service Level Policy has been established by the Regional District in accordance with the requirements of the Playbook, pursuant to the Regional District’s authority under the Operational Bylaw. This Service Level Policy applies to and is binding on each of the Fire Departments and its Members. It shall form the basis of each Fire Department’s training of its Members and related operational planning for fire suppression and emergency response activities.
 3. Service Level Policy. Each of the Fire Departments, other than ***, is authorized to provide fire suppression services in accordance with and subject to the limitations set out in the Interior Operations Service Level. **** is [/are] authorized to provide fire suppression services in accordance with and subject to the limitations set out in the Exterior Operations Service Level.
 4. Other Services. In addition to fire suppression, certain of the Fire Departments also provide technical rescue, vehicle extrication/road rescue, first medical responder, hazardous materials responses and other emergency services. Where a Fire Department provides such other services, it shall ensure that its Members (including supervising officers or incident commanders) are trained in accordance with the requirements of (as applicable) the *Workers Compensation Act* (B.C.) and regulations made thereunder, the *Emergency Health Services Act* (B.C) and regulations made thereunder, and any other applicable statutory or regulatory requirements. Where NFPA training standards are applicable to any of the job performance requirements of such services, Members performing such tasks will be trained in accordance with those NFPA standards.

5. Training of Members. Each Fire Department:

- (a) shall train its Principal Responding Members at least to the standard required by the Playbook for the Interior Operations Service Level or Exterior Operations Service Level, as required by section 3 hereof; and
- (b) for Interior Operations Service Level Departments, in relation to Members who are not trained to the Interior Operations Service Level, shall:
 - i. develop and operate an incident scene accountability system which clearly identifies the different levels of each Member's training (including interior or exterior operations and team leader for either level); and
 - ii. develop and institute operational guidelines which specify and limit the incident scene activities of Members depending on their current level of training.
- (c) for Exterior Operations Service Level Departments, in relation to Members who are not trained to the Exterior Operations Service Level, shall:
 - i. develop and operate an incident scene accountability system which clearly identifies the different levels of each Member's training (including interior or exterior operations and team leader for either level); and
 - ii. develop and institute operational guidelines which specify and limit the incident scene activities of Members depending on their current level of training.
- (d) In consultation with the Regional District, the Fire Services Coordinator shall be responsible for ensuring that each Fire Department develops an appropriate training program for all positions, tasks and roles, including those which are not expressly covered by the Playbook. This training program shall meet the requirements of the Playbook and the *Workers Compensation Act* (B.C.) and regulations made thereunder, and shall be consistent with good practices and industry standards. Where NFPA training standards are applicable to any of the job performance requirements of any Member, the Member performing such task will be trained in accordance with the relevant NFPA standards, to a level consistent with expected operational requirements.

6. Operational Guidelines, Records and Compliance. The Fire Services Coordinator, in consultation with the Fire Departments and their Fire Chiefs, shall:

- (a) develop appropriate operational guidelines implementing this Service Level Policy and the requirements of the Playbook, including operational guidelines:
 - i. which set out the conditions to be considered by an incident commander before an interior attack or rescue is undertaken; and

- ii. which identify any hazards within each Fire Department's fire suppression area in respect of which the Department will not undertake interior operations;
 - (b) ensure that accurate and complete records are maintained by each Fire Department of the training of its Members, including any refresher training, any certifications obtained⁸⁷ and otherwise as required by the *Workers Compensation Act* (B.C.) and regulations thereunder, such that the training level of each Member can clearly be established;
 - (c) ensure, for Interior Operations Service Level Departments, that each Fire Department conducts pre-planning of any risks larger than a typical residential structure in the fire service area, in respect of which such Fire Department intends to conduct interior operations; and
 - (d) report annually to the Regional District on each Fire Department's training program, the training levels of its Members and overall compliance with this Service Level Policy and the requirements of the Playbook.
7. Limitations on Services Provided. Notwithstanding anything in this Service Level Policy:
- (a) in relation to any particular Incident, a Fire Department shall undertake only those emergency response activities for which its responding Members at the Incident are properly trained and equipped, and following an appropriate size-up and risk assessment; and
 - (b) the Fire Chief of a Department authorized to operate at the Interior Operations Service Level, in consultation with the Fire Services Coordinator, may determine to limit the fire suppression activities of his or her Fire Department to the Exterior Operations Service Level in circumstances where, because of turn-over in Members or for other reasons, in the Fire Chief's view the Fire Department should suspend undertaking interior fire attack or rescue operations.
 - (c) Where a determination is made under section 7(b) to limit a Fire Department's level of service, the Regional Chief shall immediately inform the Regional District of such decision, including the reasons therefor. Where such service limitation has implemented, the Fire Chief, in consultation with the Fire Services Coordinator, may elect to recommence providing Interior Service Level Operations when he or she considers it warranted, and the Fire Services Coordinator shall inform the Regional District when such decision is made.
8. Policy Amendment. This Service Level Policy shall be reviewed [**annually**] by the Regional District with the Fire Services Coordinator. It will be amended as determined

⁸⁷ Note: third party certifications of training are not required under the Playbook. However, where a firefighter has received training which has been certified, a record of that training and related certification should be maintained.

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 Departments review the requirements contained in Part 31 (Firefighting) of the 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 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.

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, 2012 Edition.

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.

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. In the Clearwater incident, the lack of adequate training records led both WorkSafe BC and the Coroner to conclude that the department members conducting the interior attack lacked the training necessary for the operations that they undertook – even though the Fire Chief maintained that both members of the interior attack team had the training needed for the roles they played.

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)
- Ongoing yearly maintenance training in the various areas (to retain the levels of knowledge and skills achieved)

NFPA 1001 – Standard for Firefighter Professional Qualifications, 2013 Edition

Equipment Maintenance and Repair (General)

4. Ground Ladder Testing Records

Ground ladder failures during fire-ground activities, while relatively rare, have the potential to cause major injuries and possible deaths to both firefighting personnel and rescue victims during emergency operations. Unlike standard industrial ladders, fire service ground ladders 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.

WCB 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 its 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 PASS⁸⁸ Devices

SCBA and PASS alarms are life critical safety devices for firefighters. In the Clearwater incident, both the records keeping and equipment maintenance practices of the department were criticized. The department lacked the necessary maintenance and repair records for its SCBA, the equipment that was used failed in subsequent testing conducted by a third party, and there was evidence of improper maintenance of the units involved.⁸⁹ 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 OSHR, s. 31.20)

⁸⁸ Personal alert safety system – a device which sounds an alarm when a firefighter is down.

⁸⁹ Schapansky Inquiry, at pp. 4, 5-6. The SCBA units worn by Schapansky and his partner were examined by the National Institute of Occupational Health and Safety in the US.

- 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).

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.

Regulations, sections 31.19 to 31.26 (Respirators).

Regulations, section 31.18 (PASS alarms).

7. Personal Protective Equipment

Personal protective equipment (“PPE”) 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. The proper care, 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)

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, 2012 Edition.

WCB Regulations, section 31.17.

Appendix 3: Coverage Options for Coombs-Hilliers

In terms of coverage options for Coombs-Hilliers there may be some consideration as to the long-term viability of Hall #1. The structure will likely require to be replaced in the nearer term as its physical integrity as well as the amount of usable space is a concern.

One option would be to replace the hall, but another could be to consider providing coverage within much of the Coombs-Hilliers area utilizing Errington #1 Fire Hall which is located very near the east boundary. For this option to be viable the requirements of the FUS in terms of residential properties to be within 8 kilometres by road network of a fire hall must be considered.

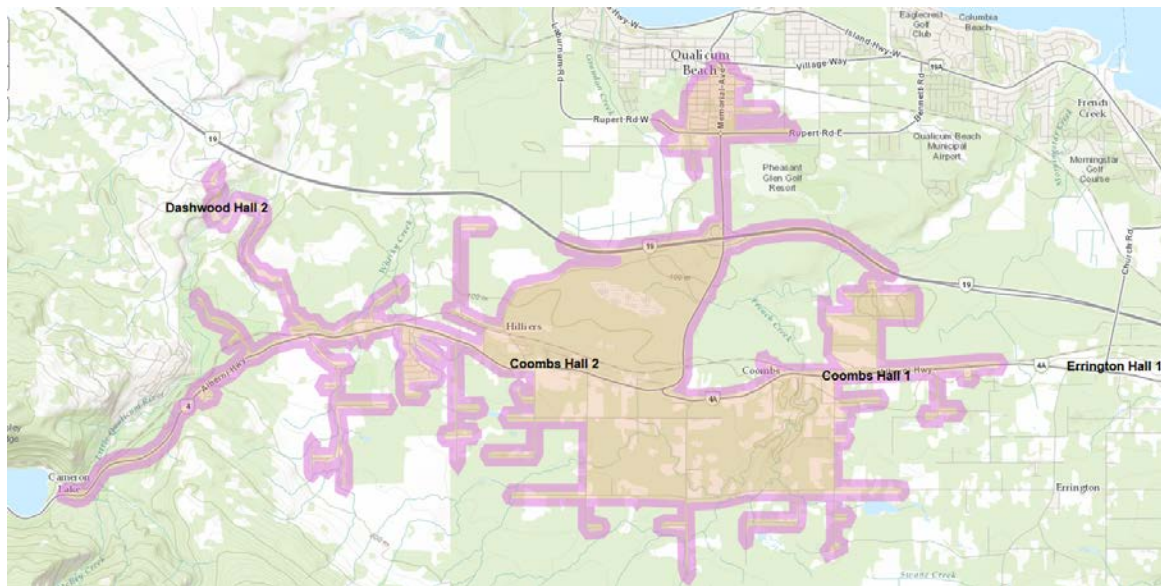


Figure 10: 8 Kilometre Coverage from Coombs-Hilliers #2 Fire Hall

Figure 10 shows the 8 kilometre coverage from Coombs-Hilliers #2 Fire Hall and it is clear that it provides coverage for the largest part of the area that would be protected by their Hall #1. Note that the coverage from Coombs-Hilliers #1 Fire Hall is not shown in this map.

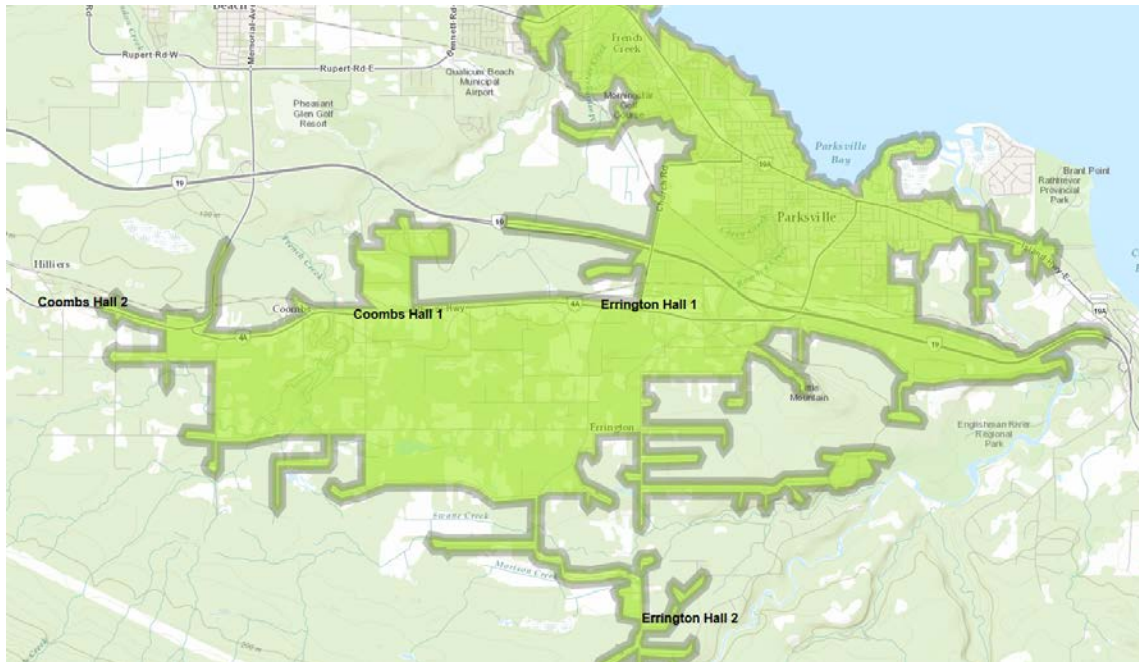


Figure 11: 8 Kilometre Coverage from Errington #1 Fire Hall

Figure 11 shows the coverage of the same area from Errington #1 Fire Hall and from this it is obvious that this hall also provides very good coverage for Coombs-Hilliers, certainly right up to Coombs-Hilliers #2 Fire Hall. A more detailed view of this area and the coverage that could be provided is shown in Figure 12

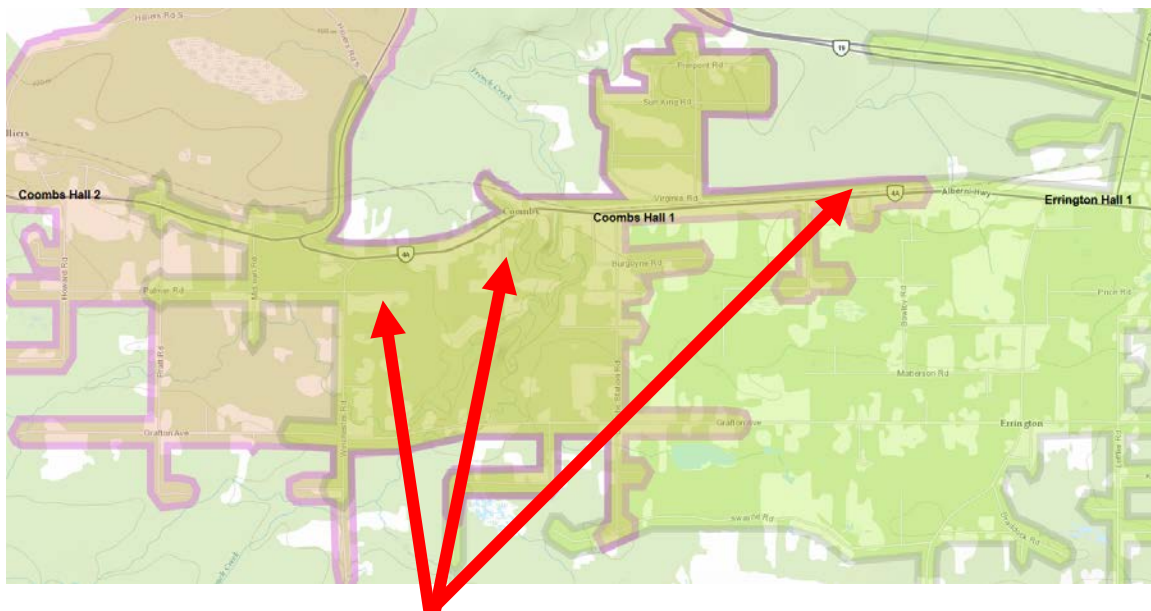


Figure 12: Overlap 8 Kilometre Coverage for Response by Coombs-Hilliers #2 Fire Hall and Errington #1 Fire Hall

From this it is obvious that the area protected by Coombs-Hilliers #2 Fire Hall would receive overlap coverage within the 8 kilometre requirement from Coombs-Hilliers #1 Fire Hall and Errington #1 Fire Hall.