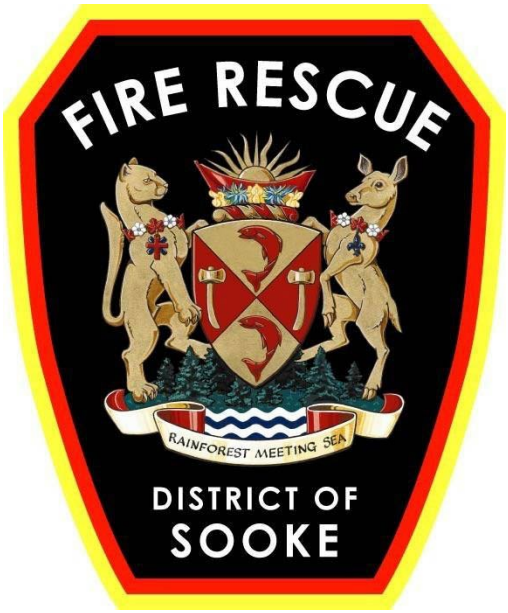

DISTRICT OF SOOKE

Fire Department Master Plan

Dave Mitchell & Associates Ltd.

June 2022

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1. Executive Summary

The Sooke Fire Rescue Department (the "SFRD" or the "Department") was founded in 1913 as an improvement district and became a municipal fire department when the District of Sooke ("Sooke" or the "District") was incorporated in 1999. It currently provides fire, rescue and medical response to the District, protecting land and improvements assessed at more than $3.3 billion.[1] Sooke has grown rapidly over the past decade, with its population increasing from 11,435 in 2011 to some 15,086 in the 2021 census, an increase of nearly 32%. Its development has also proceeded apace, with the total number of private dwellings rising from under 5,000 in 2011 to more than 6,400 in 2021.[2] The Department has necessarily grown as well, from an all volunteer model to its current composite format, with several career members on duty during weekday hours. However, it continues to rely heavily on its paid-on-call members for staffing at major incidents and to cover evening responses.

To conduct this review, our team of consultants reviewed a wide range of underlying documentation, including bylaws and other agreements, training records, occupational health and safety records, the most current survey by the Fire Underwriters, capital and operating budgets, and response data. We met with the Chief Administrative Officer, the Finance Officer and Planner as well as members of the Department including the Chief officers and administrative staff. As well we met with the career and volunteer members including the International Association of Fire Fighters executive and the executive of the Volunteer Firefighters Association and attended one of their regular practice sessions. Staff, officers and Department members were focused on ensuring that the Department delivers a high-level of emergency response services to the Sooke residents, and were a pleasure to work with as we undertook this review.

The Department responds from two fire halls. Hall 1 on Otter Point Road is the headquarters, with career staff as well as administrative and support personnel, and responds to 72% of all incidents; Hall 2 on Goodridge Road is staffed solely by volunteer members and responds to 28% of incidents including those in the Silver Spray area for which responses it traverses East Sooke. The Silver Spray area is not directly contiguous with the District's borders. Although the Department responds into this area, primary or initial response is provided by the Capital Regional District ("CRD") from its fire department at East Sooke. Residents in Silver Spray pay the additional cost of the service agreement with the CRD. The agreement underlying this CRD service has recently been continued, but the District is looking to review the arrangement in a more comprehensive fashion.

The Department operates under the direction of a career Fire Chief. There also is a career Deputy Chief based out of Hall 1, and an Assistant Chief position has been authorized but is not

[1] Province of British Columbia, Municipal Tax Rates and Tax Burden, Assessed Values – Schedule 701, at: https://www2.gov.bc.ca/gov/content/governments/local-governments/facts-framework/statistics/tax-rates-tax-burden.

[2] Statistics Canada, Census Profile, Sooke, 2011 and 2021, at: https://www12.statcan.gc.ca/census-recensement/2011/sooke; and at: https://www12.statcan.gc.ca/census-recensement/2021/Sooke.

currently filled. The Department's current staffing is primarily paid-on-call with a core group of career firefighters. Career staffing levels have been consistent for several years, however one additional position is approved in the budget for 2022.

The presence of career members working the dayshift provides for a quicker response to emergency incidents compared to evenings when members have to first travel to a fire hall prior to commencing their response. This issue is examined later in the Response Analysis section of the report, where it is shown that the time for the first unit to start response to fire or medical emergencies, ranges from two to four minutes during the hours career staff are on duty, and up to 12 or 14 minutes when the responders have to be paged from their homes or work. To address this response time deficit for emergency incidents after hours it is recommended the District increase career staffing to cover evenings and nights.

Although the provision of fire services in British Columbia is optional for local governments, where provided, they are subject to a series of regulatory requirements, including service establishment and operational bylaws, mandatory training requirements of the Office of the Fire Commissioner, other *Fire Services Act* obligations, as well as the training, supervision, operational and other requirements set under the *Workers Compensation Act* and regulations.

Looking ahead, the Department will need to plan for changes in the regulatory model with the pending introduction of the *Fire Safety Act*, which replaces the *Fire Services Act*. The *Fire Safety Ac*t will change the requirements for fire inspections and fire investigations, and will eliminate the position of Local Assistant to the Fire Commissioner. At the same time, the *Fire Safety Act* will grant additional powers to the Fire Chief and to the District to better enable management of various emergencies.

The training standard for firefighters in British Columbia are set by the Fire Commissioner pursuant to the *Fire Services Act*. These standards, last updated in 2015,[3] are being extensively revised to include training requirements for additional fire ground tasks and positions, and to reflect updates in the external standards set by the National Fire Protection Association ("NFPA").[4] A draft of the new provincial training standards was provided for initial comment in 2020 and again in 2021, and it is expected that the changes will be approved and take effect at some point in 2022.

The Playbook requires that a department's Authority Having Jurisdiction must declare a level of service for that department. The District has mandated that the Department will operate at the Full Service level, which is the highest of the three possible levels. The Playbook, in line with WorkSafe BC requirements, requires that departments have an appropriate set of standard operational guidelines ("OGs") as well as pre-incident plans where it may undertake interior attacks or rescues in complex structures. The Department is aware of these requirements. We have recommended that the Department review and update its OGs to place them in a standard

[3] *British Columbia Fire Service Minimum Training Standards: Structure Firefighters – Competency and Training Playbook* (September 2014; second edition – May 2015) (the "Playbook").

[4] This report references various NFPA training and related standards. A list of those standards can be found in Appendix 2.

format and ensure they are both current and comprehensive. The OGs, along with appropriate pre-incident plans, should be made available on mobile data terminals in the fire apparatus.

The Department currently has a series of mutual aid agreements with View Royal and Langford as well as an agreement with Metchosin and the CRD (covering East Sooke, Otter Point and Shirley). These agreements need to be carefully crafted: where a fire department responds into a neighbouring jurisdiction, the agreement needs to address operational powers, incident command, training and service levels, and personnel accountability systems, among other matters. The Department also provides fire protection services under an agreement with the Sooke Band Council, and is party to a legacy Road Rescue agreement under which it no longer responds. This report examines each of these agreements and provides a series of recommendations to clarify and update the agreements.

The report reviews the Department's occupational health and safety processes. The *Workers Compensation Act* and accompanying regulations and guidelines are highly prescriptive: although safety conscious and working to meet the regulatory requirements, some of the documentation and processes require updating and clarification. Various template documents have been provided separately to the Department to assist in its review of these issues.

The Department has primary responsibility for the management of the District's emergency program, which was created pursuant to Bylaw No. 137. The bylaw is examined in the Regulatory Matters section, and some recommendations for its revision have been noted. The emergency program itself is reviewed in section 12 of this report, and some updating of that planning is in order (including ensuring that the required documentation is in place, providing the necessary training to District staff and undertaking regular exercises of the Emergency Plan itself). The Deputy Fire Chief is appointed as the Emergency Program Coordinator with overall responsibility for the program. The ability to deliver this program effectively has been impacted by staff turnover as well as by COVID-19, limiting the number of training exercises and reducing the number of District staff who are qualified to operate in an activated Emergency Operations Centre.

There are various regional initiatives that exist to coordinate emergency planning across the CRD, including an effort to replace the 22 year-old disaster mutual aid agreement made among the various CRD municipalities. We have recommended that the District review the proposed replacement agreement carefully before acceding to it.

It should be noted that the Province is in the process of developing a replacement for the *Emergency Program Act*, which likely will impact the District's obligations. British Columbia has formally adopted the Sendai model for planning, mitigation, response and recovery from disasters, which can be expected to result in increased requirements for risk mitigation efforts by local governments, improved recovery planning, and the formal inclusion of a broader range of stakeholders in emergency planning, including First Nations. The new statute also will likely impose greater obligations on local governments to ensure that they have tested their emergency plans, although the early concept of having these plans audited by the Province has been dropped.

2. Summary of Recommendations

The following section extracts the recommendations contained within the report. The more expansive discussion in the report contains details regarding each of these recommendations. For convenience, the relevant headings from each section are included as a guide to the section from which the particular recommendation is extracted.

4. Regulatory Matters

Bylaw No. 292

Recommendation: Bylaw No. 292, which addresses establishment, operational, and administrative issues relevant to the Department, as well as fire prevention matters within the District, was originally passed in 2007. It has been the subject of at least seven amending bylaws. We would recommend that the bylaw be refreshed in its entirety. When revised, the matters identified in section 4.1 of this report should be considered including:

- expressly incorporating the Playbook training standards and specifying how the Department's service level is to be set;
- specifying a process for appointing officers within the Department;
- if the *Fire Safety Act* has not come into force, addressing the appointment of the Fire Chief as LAFC under the *Fire Services Act*;
- specifically empowering the Department to undertake pre-incident planning;
- addressing certain service limitation issues and specifically noting that the Department may terminate or restrict response activities where an incident exceeds its staffing, apparatus and training; and
- providing the Fire Chief with discretionary powers to ban any or all open burning.

Recommendation: When the Fire Safety Act comes into force, it will impose certain new obligations on the District in relation to fire investigations and change how fire safety inspections are undertaken. It also will grant new powers to fire chiefs and to the District itself. These changes will need to be reflected in the Department's underlying establishment and operational bylaw.

Emergency Program Bylaw

Recommendation: The *Emergency Program Act* is in the process of revision. When the new act is proclaimed, Bylaw no. 137 will need to be updated. At that time, subject to the specific requirements of the new statute, consideration should be given to addressing the issues identified in section 4.4 of this report, including:

- clarifying that appointment of an Emergency Program Coordinator is required (rather than optional), given the role given to that position under the bylaw;
- addressing the circumstances and process for declaring a state of local emergency by the Mayor and/or by the Mayor and Council; and
- formally establishing an emergency management organization; and
- clarifying the delegation of powers and authority to its emergency management organization.

5. Occupational Health and Safety

Recommendation: The Department's OH&S program should be reviewed and updated. When updated, the following issues should be addressed:

- a formal policy addressing bullying and harassment should be introduced. If such a policy has already been implemented by the District, that policy should be implemented in the Department through its OGs;
- the Department should develop a formal respiratory protection program;
- the process for appointing the members of the Joint Committee, and the Joint Committee's role, functions and responsibilities, should be reviewed against the requirements of the WCA and the OH&S Regulation, and updated appropriately. A template has been provided to the Department to help guide its review and updating process; and
- the other matters identified in section 5.1, 5.2 and 5.3 be addressed.

6. Mutual and Automatic Aid Agreements

Recommendation: We have set out a series of matters in section 6.3 that should be addressed in mutual and automatic aid agreements. We would recommend that the Department and District review its existing aid agreements and update them accordingly.

Recommendation: When such updating process is undertaken, it may make sense create a single agreement covering the View Royal, Langford, Metchosin and CRD departments, rather than continuing to manage three separate agreements. The single agreement can make such specific provision or contain any limitations that may be appropriate, to reflect the willingness or capability of one department to provide mutual aid to another. It also would be possible in this single agreement to include provision for automatic aid between two or more departments, on such basis as may be appropriate.

Recommendation: The provisions in the CRD Agreement covering liability allocation and insurance coverage should be reviewed.

7. Service and Other Agreements

CRD Agreement

Recommendation: The existing CRD Agreement has technically expired: the parties should formally extend it until new arrangements are negotiated.

Recommendation: When this agreement is renegotiated:

- to the extent that residents of Silver Spray are paying a proportionate share of the ESVFD (as currently is the case), the service they receive should be fundamentally equivalent to that of a resident of the ESVFD's service area; and
- the agreement should expressly provide for the ESVFD's operational powers when responding to an incident in the Silver Spray development.

T'sou-ke Agreement

Recommendation: The T'sou-ke Agreement was inherited from the original fire protection improvement district. It could stand updating. We have identified a number of issues for consideration when the new agreement is being negotiated, including:

- clearly stating the Department's powers and authority when responding to an emergency incident on TFN lands;
- if services in addition to structure fire protection are to be included (e.g., medical responses, technical rescue, hazmat, etc.), they should be set out in the agreement;
- there should be a consultative process created for reviewing issues arising under the agreement, and regular (at least annual) reporting by the Department on responses on TFN lands;
- from a fire prevention perspective, it may be useful to include fire safety inspections of any TFN institutional buildings as part of the agreed service;
- if the agreement retains the fixed fee approach to service delivery (and that approach seems appropriate, given the complexities of determining land and property values on TFN lands), provision for annual inflationary increases should be included (e.g., 2% or BC CPI, whichever is greater); and
- the indemnity, if retained substantially as given, should explicitly except out coverage for gross negligence or wilful misconduct.

Road Rescue Agreement

Recommendation: This agreement is quite dated, having been inherited from the original fire protection improvement district. The Department has indicated that it effectively no longer responds under this arrangement, as road rescue is

being provided by the Shirley Fire Department. As such, we would recommend that it be terminated, and if a road rescue response is required, the Department can respond under an EMBC task number. Alternatively, the agreement should be refreshed, and the issues identified in section 7.3 be considered and addressed

SD 62 Agreement

Recommendation: Section 13 of the SD 62 Agreement should be revised to clarify some minor drafting issues, and section 18 should be supplemented with details on how the costs of any response are to be calculated.

11. Fire Prevention

Recommendation: Create a new OG to outline the fire prevention program, its processes and responsibilities related to fire inspections and fire investigations.

Recommendation: Given the current backlog of fire inspections, reconsider the need for inspections of home-based businesses that don't meet the current criteria for a property requiring inspection. Also, consider reassessing fire inspection frequencies using a risk-based approach as outlined in the upcoming Fire Safety Act.

Recommendation: Create a new OG that defines the requirement for pre-plans and the processes to create, review and update pre-plans.

Recommendation: Identify and acquire a standardized pre-plan template.

Recommendation: Identify a training standard for fire inspectors and fire investigators.

Recommendation: Given the current responsibilities of the Deputy Fire Chief, consider filling the Assistant Fire Chief position with a primary responsibility for all aspects of the fire prevention program.

Recommendation: Consider creating a formal Public Education program to further enhance community fire safety.

Recommendation: Consider developing a FireSmart program for Sooke to reduce fire risk at the forest interface.

12. Emergency Program

Recommendation: Identify key EOC positions and the corresponding municipal staff positions that could fill the roles. Create a register of staff to track EOC training.

Recommendation: Provide EOC training to municipal staff identified for EOC deployment.

Recommendation: Conduct regular EOC exercises.

Recommendation: Consideration be given to adding 0.5 FTE administrative support position for the Emergency Program.

Recommendation: Identify a back-up EOC location, in a post-disaster building if possible, and create an activation plan.

Recommendation: Review Appendix 3 of the EOC Manual to ensure the profile information is current. Update the contact names and numbers listed.

Recommendation: Review Appendix 6 of the EOC Manual and update the emergency contact list information and validate the organizational chart.

Recommendation: Undertake a detailed review and analysis of the proposed area-wide mutual aid agreement that is intended to replace the existing DMAA.

13. Operational Guidelines

Recommendation: A review of the OGs should be undertaken to address the issues identified in this section and other areas of the report.

Recommendation: The Department should review the detailed OG feedback (provided in a separate document) and make the identified amendments to individual OGs.

15. Training and Qualifications

Training and Qualifications

Recommendation: To ensure that members are adequately trained and qualified for the services they are required to perform, and given the requirements of WorkSafe BC, it is recommended that the Department formally require that NFPA standards form the basis of all training for the operational functions undertaken and emergency services provided by the Department. This approach can be adopted by Department policy or included in the District's Service Level declaration.

Recommendation: For all facets of firefighter and officer training, whether provided in-house or by external third parties, and whether in relation to new training or skills maintenance training, the Department needs to ensure that the records identify or include:

- the specific skills which are being taught or refreshed are identified, along with the relevant NFPA JPRs and/or Playbook requirements to which they relate;
- how the members taking the training were formally evaluated against the relevant standard; and
- a consistent record of the results of such evaluations on an individualized basis.

Recommendation: The Departments' RIT training is provided in-house; however, the program does not include a formal assessment/evaluation process. Given the Department's current service level is that of Full-Service Operations, which could involve interior operations, we recommend that the Department ensure its RIT training processes include proper evaluations to ensure all members at the Interior operations level meet the requirements of the NFPA 1407 standard.

Recommendation: The current version of the Playbook indicates that a fully qualified firefighter (NFPA 1001) in a Full-Service department is essentially deemed to meet the Team Leader requirements, but only for specific tactical assignments for which they have been deemed qualified. To ensure they have the necessary training and qualifications for the supervision they reasonably are expected to provide, care should be taken when assigning Team Leader roles to such firefighters as these skills are not necessarily solely included/derived from the NFPA 1001 qualification. Given that approximately 80% of the Department's POC members are qualified at the NFPA 1001 level, and based on the exception created by the Playbook, the Department technically has sufficient Team Leaders to meet Playbook requirements. Nevertheless, we would recommend additional tactical team leader training of those career and POC firefighters that could be assigned this role to ensure they can effectively execute that role for the various tactical activities to which they could be assigned.

Department Training

Recommendation: Although the Department has mutual aid agreements with three neighbouring departments, there is little or no collaborative/joint training currently taking place. Such joint training is critical for safe and effective joint responses. As such, we recommend more formal processes be introduced providing for regular joint training exercises among the three departments.

Specialty Firefighter Skills Training

Recommendation: We would recommend that the Department undertake an internal review of all operational services currently provided to determine: 1) If the service needs to be provided by the Department, and if so, to what level; 2) the required training necessary to provide that service at the determined level; and 3) the actual funding needed to provide that service including equipment, initial training, and on-going maintenance training. Once responses to these questions have been determined, the Department should seek appropriate approval and funding from Council to better manage all required training functions and processes related to specialty services.

Maintenance Training

Recommendation: The Department generally conducts its live fire maintenance training at the Otter Point training ground facilities. Typically, these training exercises are conducted by the Department's in-house instructors and site technicians, and occasionally involve some joint training with other departments and their instructors. Given the potential risks associated with live fire training, it is recommended that the Department ensure that all instructors and evaluators are properly qualified to deliver such training.

Specialty Services Maintenance Training

Recommendation: The Department has determined that maintenance of specialty skills is a significant challenge, and that the competencies and skills in a number of these areas have not been well maintained since the initial training was conducted. To ensure competency is maintained, it is recommended that the frequency for reviewing/re-qualifying each discipline be set out in the annual skills maintenance training plan. It is further recommended that the Department ensure the training and evaluations for these skills are conducted in a manner that meets the requirements of the selected level of the relevant NFPA standard and the results of those evaluations recorded on an individualized basis.

Recommendation: Given the importance of ensuring that specialty team training is properly maintained, we recommend that the training division budget be reviewed to determine if sufficient funds have been allocated to address the costs associated with either backfilling units on-shift or the cost of off-duty training. If there is insufficient funding to support the required initial and on-going maintenance training for various specialty services, it may not be possible to maintain such services at the existing proficiency levels. This review should be tied to the recommendation above, that the Department examine its range of services, and the level to which it provides various technical rescue and other specialty services.

Officer Maintenance Training

Recommendation: Maintenance of day-to-day administrative and supervisory skills, along with advanced EIM training and/or refresher seminars for the Company Officers (Captains) have not generally been conducted in the past. As such, we recommend that the Department review the EIM skills of each of its officers and, if necessary, implement specific training sessions in any areas requiring improvement, as well as implement regular ongoing "refresher" EIM seminars to ensure maintenance of these various skills.

16. Response Analysis

Recommendation: The District should revise the Department's staffing model to provide firefighters at Hall 1, 24 hours a day, seven days a week to address the very long response times when the current career staff are not available.

3. Community Background

The District is one of 13 municipalities within the Capital Regional District (the "CRD" or the "Regional District"). Its earliest settlements include a sawmill established in1855 as well as settlements related to the fishing industry and mineral extraction.[5] Sooke was incorporated as a municipality in 1999 and has grown rapidly since that time.

The District is situated in the Juan de Fuca Electoral Area between Metchosin and Otter Point on the West Coast of Vancouver Island, with a portion of its area, the Silver Spray development, separated from it by East Sooke. Fire protection in the District is provided from two fire halls, one on Otter Point Road which is the headquarters, the other on Goodridge Road. The Silver Spray area receives primary fire protection under contract with the CRD. The services are provided by the East Sooke Volunteer Fire Department (the "ESVFD") located on East Sooke Road.

The District's Official Community Plan was adopted under Bylaw No. 400, dated 2010, as consolidated to September 28, 2020.[6] The 2010 OCP, which is in the process of being updated, notes that the Department was first established in 1913 as the Sooke Harbour Fire Department.[7] When the District was incorporated in 1999, it took over the Department from the former fire improvement district, which was disbanded.

The Department and its members provide mutual aid in the Pacific Rim and Westshore areas as well as being part of the CRD-wide mutual aid arrangement for disasters and major emergencies. The 2010 OCP notes that, in response to ongoing growth and development complexity, the Department may need to increase the number of career and volunteer firefighters and develop additional fire stations. The District's current Strategic Plan notes the need for renovations at the main fire hall as well as the completion of a Master Fire Plan.[8]

Sooke had a population of 15,086 as of the 2021 census, and has seen its population increase by some 32% since 2011. Forward planning estimates that the community will grow 2.9% annually reaching a population of nearly 26,000 by 2050. During this period, there also is an anticipated demographic shift, with the median and average age of the population expected to increase more quickly than larger centres like Victoria and Nanaimo.[9]

The Draft OCP, currently under development, provides a new Vision statement for Sooke as follows:[10]

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[5] District of Sooke, *Official Community Plan, Schedule "A",* Draft, August 2021 ("Draft OCP") , page 16.

[6] District of Sooke, *Official Community Plan, 2010, Bylaw No. 400* ("2010 OCP").

[7] 2010 OCP, page 151.

[8] Sooke Council Strategic Plan, February 2021.

[9] Draft OCP, page 18.

[10] Draft OCP, page 31.

> Sooke is a small town with a big heart. It is a vibrant net-zero emissions community, cradled in the stunning beauty and vitality of the ocean and forest.
>
> Located in the beautiful lands that have been home to the T'Sou-ke and Sc'ianew First Nations since Time Immemorial, Sooke is known for its active waterfront and protected ecosystems and farmland.
>
> Its Town Centre is the hub of public life, defined by a distinct west coast character. Sooke offers exceptional amenities, housing choices, diverse employment, and an eclectic arts and culture scene. It is a caring community where people and the environment are treated with dignity and respect.

The Draft OCP has three key goals:

- Green and Net-Zero
- Enjoyable and Distinct
- Equitable and Respectful

Under the Draft OCP, the majority of residential growth as well as commercial and employment will be concentrated in the Town Centre area.[11] Building heights are to be limited to a maximum of six storeys in the Town Centre area, dropping to four storeys in the adjacent transitional area, and three or four storeys in the Waterfront Area.[12]

Figure 1 that follows identifies the nodes of development showing the commitment of the largest area for parks and residential buildings, with the most concentrated development located in the Town Centre, and in the three areas identified for Comprehensive Development.

[11] Draft OCP, page 37.

[12] Draft OCP, page 38.

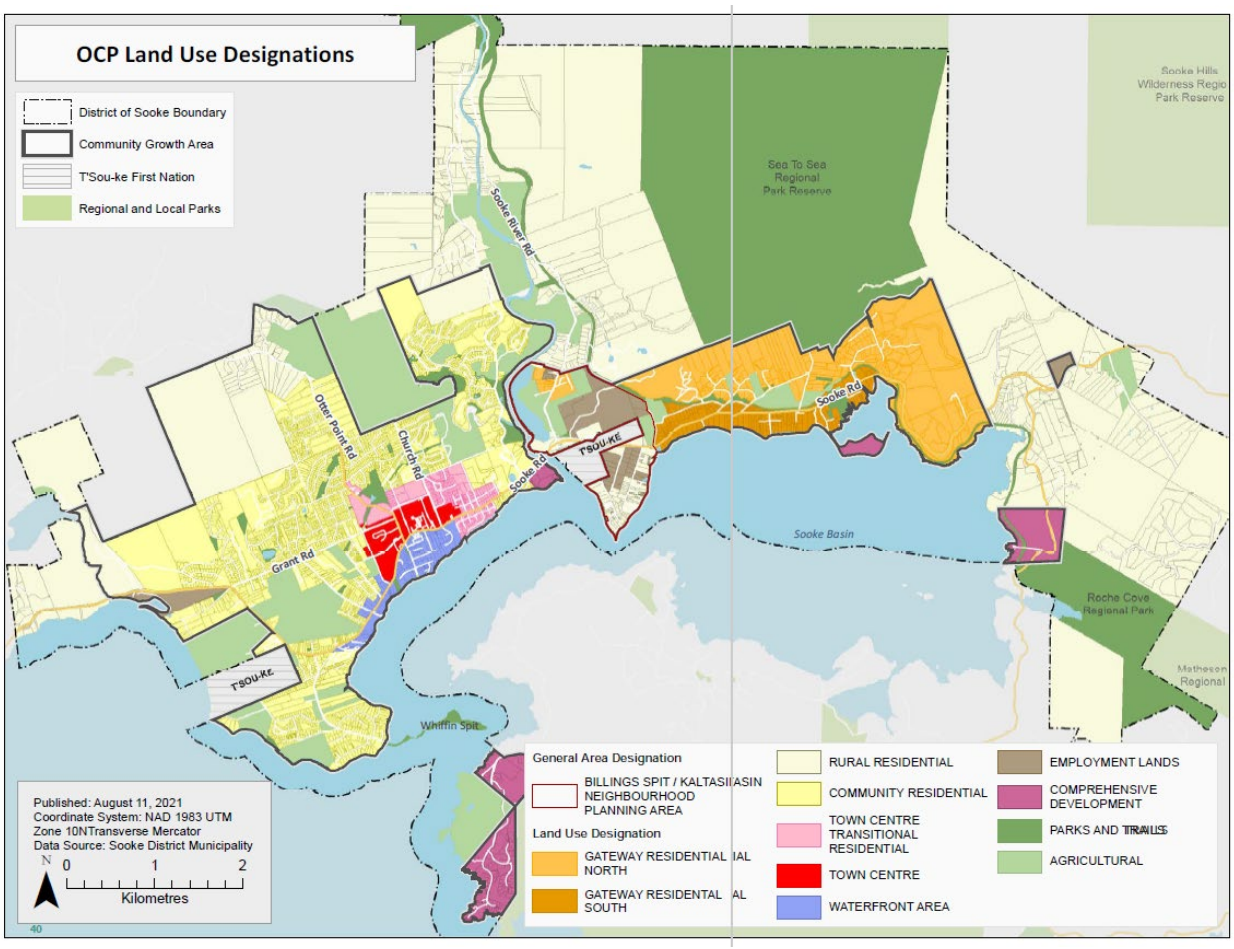

Figure 1: OCP Land Use Designations

The Draft OCP identifies the main fire hall location on several maps and refers to wildfire protection at several points but, unlike the 2010 OCP, does not examine SFRD or consider the impact that the proposed growth and development will have on the Department.

4. Regulatory Matters

As a starting point, it needs to be recognized that, for local governments, fire protection is an optional service. Unlike police and ambulance, which are established under and/or operate pursuant to provincial statutes and have a uniform range of powers across the province, a fire department only has the power and authority granted to it under the local bylaw that creates and defines its operations. Outside of its operating jurisdiction – which, in the case of a service established by a municipality, is the municipal boundaries – a fire department has no specific authority to act at or to respond to an incident. Care must be taken, therefore, to ensure that the 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 fire service contract, under a mutual or automatic aid agreement, or in support of another emergency response agency.

Similarly, there is no standard range of services defined for a fire department. A fire department is authorized to provide only those services which are stipulated in its service establishment and operational bylaws. Given that fire departments are the only "all hazards" response agency directly controlled by 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 and equipment.

The following section reviews the existing bylaw structure governing the Department's establishment, administration and operations, the bylaw authorizing fire services in the Silver Spray area, and the District's Emergency Program bylaw.

Nothing in this report should be construed as legal advice. The District and the Department should review any recommendations or issues identified below, or elsewhere in this report, through the District's ordinary legal review processes.

4.1 Fire Protection Services Bylaw

The District, upon its incorporation as a municipality in 1999, took over the operation of the Department from the former fire protection improvement district.[13] The Department is established under and operates pursuant to *Fire Protection Services Bylaw 2007*, being Bylaw No. 292 ("Bylaw No. 292"). This bylaw sets out the Department's administrative and reporting structures, identifies the Department's operational responsibilities and powers, and deals with various fire prevention matters in the District (e.g., fire inspections, fire hazards, open burning, etc.).

Bylaw No. 292 has been significantly amended since 2007, with no fewer than seven amending bylaws having been passed. As a result, the consolidated version includes sections and

[13] Lt. Gov. in Council, OIC 1159, 2 Sept. 1999, issuance of Letters Patent incorporating the District. See s. 16 of the Letter Patent.

schedules which have been deleted, but are still shown (since the numbering was not revised with the deletions). It is perhaps time to consider updating and replacing Bylaw No. 292 in its entirety.

When Bylaw No. 292 is updated, consideration should be given to addressing or including the following:

- It has become best practice to reference the minimum training standards set by the Playbook, and to establish the process by which the Department's service level will be set. If the service level is essentially fixed, and not expected to be changed, it can be set in the bylaw itself. Otherwise, the bylaw should specify that it will be set by council policy.

- It is usual for these types of bylaws to specify the reporting lines of the Fire Chief (e.g., to Council, or, more typically to the Chief Administrative Officer).

- It also is usual to specify the process for appointing officers and members. This issue is touched on in section 4.4 of Bylaw 292, "Management and Control", but it is typically addressed in greater detail, incorporating any policies of the District (e.g., human resources policies) into the exercise of that authority.

- It also is typical to address the *ex officio* appointment of the Fire Chief as a Local Assistant to the Fire Commissioner ("LAFC") under section 6(1)(a) of the existing *Fire Services Act* (B.C.), and his or her authority to designate other Department members to exercise the powers of the local assistant. It also is usual to address the responsibilities (e.g., fire investigation reporting) associated with that role. (The need for such provisions will fall away when the new *Fire Safety Act* comes into effect.)

- Many of the more recent bylaws of this type have adopted the approach first seen in the Metro Vancouver bylaw governing the Sasamat Volunteer Fire Department by providing that the bylaw does not contemplate: the protection of any person from economic loss; a warranty or guarantee as to the service levels that will be provided in connection with any particular incident; or any guarantee with respect to the timeliness of any response.[14]

- It is typical to specifically empower the fire department to undertake pre-incident planning and to authorize its entry onto properties and premises for that purpose. Similarly, the Department's responsibility for reviewing fire safety plans under the *Fire Code* usually will be addressed, along with any charges applicable to such reviews. Many bylaws now permit the fire department to specify the format in which such plans will be submitted for review, and to authorize the department to require additional information necessary for its pre-incident planning.

[14] Metro Vancouver, *Sasamat Volunteer Fire Department Administration and Regulation Bylaw No. 1204, 2014*, s. 1.5

- The Department has been granted broad operational powers under section 11: it is now common to specifically provide that a department may restrict or terminate an emergency response where an incident commander determines the Department lacks the personnel, apparatus, equipment or training necessary for the event.

- Bylaw No. 292 specifies a fire inspection schedule that the Department must meet (s. 16 and Schedule A). It might be preferable to have the Fire Chief, in consultation with the Chief Administrative Officer, set an inspection schedule that reflects the Department's assessment of risk (subject to meeting the *Fire Service Act* requirements and any directions from Council). This approach provides more flexibility, as it is easier to amend policy, if required, than to amend the bylaw. As noted in the Fire Prevention section, below, the Department is struggling to meet its bylaw-mandated inspection frequency.

- Section 17 permits the District to charge for an "inspection, including re-inspection" that is not a "routine inspection under section 16." It is not clear if the Department can charge for a follow-up inspection to a "routine inspection under section 16". If that was the intent, then we would suggest redrafting this to permit the Department to charge for "any inspection that is not a routine inspection under section 16, or for any reinspection that may be required".

- Sections 29 – 43.1 of Bylaw No. 292 deal with open burning. It may be useful to include an overriding discretionary power for the Fire Chief to ban any or all open burning based on concerns regarding fire risk, either generally, or particular to an individual property. One option would be to create a separate bylaw for open burning.

4.2 New *Fire Safety Act*

The *Fire Services Act*, which grants certain powers and authority and imposes certain obligations on municipalities, is slated to be replaced. The *Fire Safety Act* received third reading back in May 2016, but still has not come into force. The Office of the Fire Commissioner (the "OFC") is in the process of completing the regulations and policies which are needed before the statute can come into effect. It is unclear when these processes will be finalized. More significantly, in a 2018 letter from the Minister of Public Safety and Solicitor General to the Union of BC Municipalities, the Province announced that it was going to amend this new statute in a way that would materially impact the obligations of regional districts.[15] These potential amendments, and on-going discussions between the Province and regional districts regarding their implications, have delayed the statute from coming into effect. Our understanding is that the new statute is unlikely to come into effect until late 2022 at the earliest.

However, once the new act comes into force, it will materially affect the District's obligations with respect to fire inspections and fire investigations. As such, it is useful to understand what these new obligations will be, and to build them into the Department's medium-term planning. At a

[15] Letter, Farnworth (Minister of Public Safety and Solicitor General) to Booth (President, Union of BC Municipalities), 30 July 2018.

high level, this new statute impacts the following principal matters relevant to the District and the Department:

- the fire inspection regime applicable to public buildings;
- fire investigations; and
- the powers exercised by fire chiefs and local governments.

Fire Inspections

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

- fire safety inspections; and
- fire safety assessments.[16]

Following a transition period, "fire inspectors" will need to meet the training and proficiency requirements specified by the Fire Commissioner.[17] Those requirements, which are expected to be similar in format to the Playbook, have not yet been issued. However, these new training requirements will potentially impact the training of Department officers and members, who will have to meet the new standards if they are to be made responsible for fire safety inspections.

The new provisions mean that the Department will need to conduct risk assessments of public buildings within its service area. Those assessments will need to comply with the (yet to be issued) regulations under the *Fire Safety Act*.[18] An inspection regime will then need to be developed based on the risk assessments that are conducted. Conceptually, the *Fire Safety Act* moves away from the existing "regular" inspection requirements, where, in practice most jurisdictions seek to inspect all properties annually, and heads towards a more flexible regime, where inspection frequency is based principally on risk. Under this approach, higher hazard or non-compliant properties should be subject to more frequent inspections, while lower risk, compliant properties can be inspected less frequently (perhaps coupled with intervening self-assessments by the owners during the non-inspection years).

The new *Fire Safety Act* also introduces the concept of a "fire safety assessment," which is the self-inspection of a property by the owner. Under the existing *Fire Services Act*, there is some uncertainty about whether self-inspection systems comply with the statutory requirements.[19]

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

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

[18] *Fire Safety Act*, s. 20(1)(b).

[19] For opposing views, see the Fire Inspection and Prevention LAFC Inspection Working Group Sub-Group, *BC Fire Services Act: Regular System of Inspections – Considerations for Development* (January 2015) at p. 8 (suggesting such a system, on its own, is not compliant with the *Fire Services Act*); versus:

That issue is now laid to rest. However, it will be up to the District to determine which public buildings are to be permitted or required to conduct self-assessments, presumably as part of the overall risk analysis that must be conducted. The new self-assessment by owners will have to be conducted "in the form and manner required by the Fire Commissioner" under the new statute.[20] It is expected that the Fire Commissioner will issue policy or forms covering fire safety assessments, though these have not yet been released.

Section 10 of the *Fire Safety Act* grants various powers to fire inspectors to enter premises,[21] conduct their inspection (including testing and taking of samples, etc.), and to require the production of records related to the premises by the owner or occupier. Section 11 empowers a fire inspector to issue orders requiring an owner bring the property into compliance with the *Fire Safety Act* and regulations (which regulations will include the *Fire Code*).

The Department will need to incorporate the risk assessment obligation into its future workplans and budgeting. It may be that the OFC will permit generalized assessments, based on property type, to form the basis of such risk determination. However, it would be useful to conduct more detailed assessments where location, age, condition, use and site-specific features (e.g., exposures, or access issues for a Department response), would suggest that the building or premises present a higher risk than otherwise would be expected from the building classification alone.

Under ss. 20(2) and (3) of the *Fire Safety Act*, the District may, by bylaw, charge "a reasonable fee" for conducting a fire safety inspection required by the new Act. Subsection 20(4) specifies the criteria which are to be applied when setting such fee.

Fire Investigations

While an argument can be made that LAFCs (and not local governments *per* se) are currently responsible for fire investigations and reporting, the new *Fire Safety Act* makes it clear that the obligation will now fall directly on the "local authority" (which includes a municipality). The requirements relating to fire investigations are set out in Part 7 of the *Fire Safety Act* (ss. 22 – 27). As with fire inspectors, a local authority:[22]

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

L.C. Staples, Q.C., "Opinion letter to Fire Chiefs' Association of British Columbia," dated 30 Aug. 2012, which holds that such a system of self-inspections can be implemented in compliance with the existing *Fire Services Act* requirements

[20] Fire Safety Act, s. 21(1).

[21] The power is specifically limited in s. 10(2) to exclude private dwellings unless a warrant has been obtained.

[22] *Fire Safety Act*, s. 23(1).

Following a transition period, fire investigators must meet the training standards which are to be specified by the Fire Commissioner.[23] Those standards have not yet been promulgated. These new training requirements will likely impact the Department's officers and fire prevention members, who are most likely to be charged with investigating fires.

Under section 25, each local authority is required to commence a fire investigation within five days of learning of a fire that has destroyed or damaged property or resulted in death or injury. The investigation must examine the "cause, origin and circumstances" of the fire. The facts ascertained about the cause, origins and circumstances of the fire must then be submitted to the OFC within 30 days after such fire.[24]

Fire investigators are granted broad powers of entry onto property or premises for the purposes of conducting a fire investigation, and to remove a record or thing, conduct testing, take samples and make such records, as required.[25]

Powers and Authority

Under the *Fire Services Act*, powers and authority were granted principally through the mechanism of appointing fire chiefs (and others) as LAFCs.[26] The role of local assistant, however, is being abolished.[27] In place of the powers granted to local assistants, the new statute:

- grants a fire chief (or designate) the power to order a tactical evacuation where he or she "believes that there is an immediate threat to life due to a fire or explosion";[28] and
- deems "fire chiefs," fire investigators and fire inspectors to be peace officers for the purposes of the new act.

In addition, as noted above, broad powers are granted to fire investigators conducting investigations, and to fire inspectors conducting inspections. Additionally, local authorities are granted the power to order a "preventive evacuation" where the local authority "believes that conditions exist on or in the premises that fire on or in the premises would endanger life."[29] Each of these new powers should be contemplated in any updated bylaw.

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

[24] It is unclear in the statute whether the report must be submitted 30 days after the date of the fire, or 30 days after completion of the investigation of the fire.

[25] *Fire Safety Act*, s. 27.

[26] *Fire Services Act,* s. 6.

[27] 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.

[28] Fire Safety Act, s. 13.

[29] 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*.

When the *Fire Safety Act* comes into force, it will be necessary to update Bylaw No. 1508 (or any replacement bylaw), to address the new requirements and authorities.

4.3 Silver Spray Development

When the District's boundaries were expanded in 2004 to include the Silver Spray development, the supplementary letters patent stipulated the new area to be a "municipal local area service" as contemplated by the *Community Charter*, for the purposes of fire protection.[30] The District was required to adopt a bylaw pursuant to section 211 of the Community Charter in relation to this service area (such bylaw not having to meet the requirements of section 211(1)).[31] Accordingly, on 8 May 2006, the District passed the *Silver Spray Fire Protection Local Area Service Bylaw, 2006*, being Bylaw No. 239 ("Bylaw No. 239").

This bylaw formally establishes a local service area for fire protection purposes covering the Silver Spray development. Under s. 6 of Bylaw No. 239, all of the costs of fire protection for this local service area are to be recovered by a property value tax imposed on land and improvements within the service area.

Bylaw No. 239 enables the District to separately tax the property owners in the Silver Spray development for the cost of fire protection provided by the ESVFD under a service agreement with the CRD. That agreement is reviewed in section 7.1 of this report.

4.4 Emergency Program Bylaw

The District's obligation to implement an emergency program under the *Emergency Program Act* (B.C.) is addressed by the *Emergency Program Bylaw, 2003*, being Bylaw No. 137 ("Bylaw No. 137"). It should be noted that the Province is in the process of developing a replacement for the *Emergency Program Act.* Ironically, perhaps, its introduction has been delayed by a series of major crises over the past 24 months – including the pandemic and a significant wildfire season experienced in 2021. The new act is not expected to be introduced now until the fall of 2022.[32] When it comes into force, it will be necessary to review and revise Bylaw No. 137, at which time the comments below also can be addressed (subject to any changes required by the new statute).

It also should be noted that British Columbia has formally adopted the Sendai model for planning, mitigation, response and recovery from disasters, which model is expected to be enshrined in the new statute. This model can be expected to result in increased obligations for risk mitigation efforts by local governments, improved recovery planning, and the formal inclusion of a broader range of stakeholders in emergency planning, including First Nations.

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[30] Lt. Gov. in Council, OIC 1155, 2 Dec. 2004, approving supplementary letters patent in relation the District, the CRD and the East Sooke Fire Improvement District, s. 5.0.

[31] *Ibid*., s. 5.1.

[32] See: Ministry of Public Safety and Solicitor General, "Where we are now," at https://www2.gov.bc.ca/gov/content/safety/emergency-management/emergency-management/legislation-and-regulations/modernizing-epa (accessed 28 October 2021).

The new statute also will likely impose greater obligations on local governments to ensure that they have tested their emergency plans, although the early concept of having these plans audited by the Province has been dropped.

Bylaw No. 137 addresses the following principal obligations in relation to the creation of its Emergency Program, including:

- the creation of an Emergency Executive Committee comprising the Mayor, Chief Administrative Officer, and Emergency Program Coordinator (ss. 4 - 5)
- a process for appointing an emergency program coordinator; (s. 7). This section uses the phrase "may appoint": given the roles specifically assigned to the Emergency Program Coordinator in the bylaw, it probably should have been phrased as "will appoint";
- the establishment of an "Emergency Planning Committee" under the leadership of the Emergency Program Coordinator, which committee is to "carry out risk mitigation, planning, development, maintenance and training of all aspects of emergency management" (ss. 8 – 9);
- specifying the membership of the Emergency Planning Committee is specified in section 10 (discussed below) and this committee's reporting line is to the Emergency Executive Committee (s. 11); and
- the delegation of Council's powers to either the Emergency Executive Committee or the Emergency Program Committee, if "a quorum of Council cannot be established" (s. 12) (discussed below).

It should be noted that under s. 6(3) of the *Emergency Program Act*, a municipal government is required to establish an "emergency management organization". While either the Emergency Executive Committee or the Emergency Planning Committee may constitute such an organization, it would be preferable to specifically identify that one or the other fulfils this role.

The membership of the Emergency Planning Committee is rather vague – pursuant to section 10 of Bylaw No. 137, the committee "consists of the decision making leaders of all the groups and agencies which would be involved in the mitigation, planning and response to emergencies in the District…". We would recommend identifying specific positions from within the District to sit on this committee, and permit the Emergency Program Coordinator to include as participants such other representatives from relevant agencies and emergency response organizations as he or she considers appropriate or necessary.

The Emergency Planning Committee also should be specifically delegated the task of creating and updating the District's emergency plan, in accordance with and as contemplated by section 6(2) of the *Emergency Program Act* and section 2(3)(a) of the *Local Authority Emergency Management Regulation*, BC Reg. 380/95 (the "Emergency Management Regulation"). While this obligation may be inferred from section 9 of the bylaw, it would be better specifically to address it, and make it a responsibility of this committee. Similarly, certain of the other specific

obligations found in the Emergency Management Regulation (e.g., a training program, the conduct of emergency response exercises, etc.) should be explicitly delegated to the Emergency Planning Committee.

Section 12 of Bylaw No. 137 deals with powers delegation. It reads as follows:

> As provided by section 13(1)(c) of the *Emergency Program Act*, **in the event that a quorum of Council cannot be established**, all of the emergency powers of the Council after the declaration of a state of local emergency and set out in section 10 (1)(d) to (l) of the *Emergency Program Act* are delegated to
>
> (a) the Emergency Executive Committee; or
>
> (b) the Emergency Program Coordinator, if a quorum of the Emergency Executive Committee cannot be established. [emphasis added]

The issue of delegation is addressed in two places in the *Emergency Program Act*: under section 6(4), and section 13(1)(c). These sections provide as follows:

> 6(4) A local authority may, in writing, delegate any of its powers and duties under this Act to the committee, emergency management organization or coordinator referred to in subsection [6](3), except the power to make a declaration of a state of local emergency.
>
> 13(1) After a declaration of a state of local emergency is made under section 12 (1) in respect of all or any part of the jurisdictional area for which a local authority has responsibility and for the duration of the state of local emergency, the local authority may do all acts and implement all procedures that it considers necessary to prevent, respond to or alleviate the effects of an emergency or a disaster, including any or all of the following:
>
> (c) subject to this section, authorize, in writing, any persons involved in the operation of a local emergency plan or program to exercise, in relation to any part of the jurisdictional area affected by a declaration, any power available to the minister under section 10 (1) (d) to (l).

As Bylaw No. 137 is drafted, the delegation of power can only occur if "quorum of Council cannot be established," suggesting that Council itself, rather than the emergency management organization or emergency operations centre director, will be actively exercising such powers during an emergency. This is an unusual approach. Typically, the powers are either expressly delegated to the emergency management organization or emergency management coordinator in the bylaw, or that delegation is specifically contemplated.

In practice, of course, the actual response to an emergency requires that these powers be exercised at the emergency operations centre level, rather than by a municipal council itself. This delegation language should be reviewed, and its intent clarified.

One of the unusual gaps in Bylaw No. 137 is that it fails to detail a process for the declaration (and eventual termination) of a local emergency by the District (including, for example, the power of the mayor to make a declaration under section 12(1), but subject to section 12(2) of the *Emergency Program Act*). The process for declaring a state of local emergency (including the criteria that would go into that assessment), also could be better and more comprehensively described in the District's Emergency Program, which is discussed in section 12, below.

4.5 Recommendations

Bylaw No. 292

Recommendation: Bylaw No. 292, which addresses establishment, operational, and administrative issues relevant to the Department, as well as fire prevention matters within the District, was originally passed in 2007. It has been the subject of at least seven amending bylaws. We would recommend that the bylaw be refreshed in its entirety. When revised, the matters identified in section 4.1 of this report should be considered including:

- expressly incorporating the Playbook training standards and specifying how the Department's service level is to be set;
- specifying a process for appointing officers within the Department;
- if the *Fire Safety Act* has not come into force, addressing the appointment of the Fire Chief as LAFC under the *Fire Services Act*;
- specifically empowering the Department to undertake pre-incident planning;
- addressing certain service limitation issues and specifically noting that the Department may terminate or restrict response activities where an incident exceeds its staffing, apparatus and training; and
- providing the Fire Chief with discretionary powers to ban any or all open burning.

Recommendation: When the Fire Safety Act comes into force, it will impose certain new obligations on the District in relation to fire investigations and change how fire safety inspections are undertaken. It also will grant new powers to fire chiefs and to the District itself. These changes will need to be reflected in the Department's underlying establishment and operational bylaw.

Emergency Program Bylaw

Recommendation: The *Emergency Program Act* is in the process of revision. When the new act is proclaimed, Bylaw no. 137 will need to be updated. At that time, subject to the specific requirements of the new statute, consideration should be given to addressing the issues identified in section 4.4 of this report, including:

- clarifying that appointment of an Emergency Program Coordinator is required (rather than optional), given the role given to that position under the bylaw;
- addressing the circumstances and process for declaring a state of local emergency by the Mayor and/or by the Mayor and Council; and
- formally establishing an emergency management organization; and
- clarifying the delegation of powers and authority to its emergency management organization.

5. Occupational Health and Safety

The statutory basis for occupational health and safety programs is found in the *Workers Compensation Act* [RSBC 2019], ch. 1 (the "WCA"), and the *Occupational Health and Safety Regulation*, B.C. Reg. 296/97 (the "OH&S Regulation"), as well as in other regulations and the policies of WorkSafe BC. The requirements are complex and prescriptive. The WCA was recently comprehensively updated and revised: although the changes made were not substantive, virtually all of the divisions and sections were renumbered.[33]

The Department members are employees of the District for workers' compensation purposes. As such, it is the District's responsibility to ensure that the various obligations under the WCA and OH&S Regulation are being met.

The WCA mandates that the relevant local government's occupational health and safety program is supposed to apply to its fire departments.[34] Many local governments, however, develop a compliant, standalone program for their fire departments, given the special circumstances and risks that they face. The Department has a standalone program, that is implemented through its OGs. The program is reviewed in the next section, below.

Under section 31.3 of Part 31 of the OH&S Regulation, where an employer is required to maintain a joint committee, its fire department is required to operate a separate joint committee.[35] The Department has a separately constituted joint committee, although the formal documentation associated with that committee should be revised and updated to meet WCA requirements. We have outlined the formal requirements for a joint committee in section 5.2.

We reviewed joint committee minutes covering the period from January 2020 – February 2021, as well as the relevant OGs relating to the Department's OH&S obligations.

5.1 OH&S Program Review

The Department's standalone program follows a standardized 13-section template originally developed by the OFC in the late 1990s. While this program is generally sufficient, and the Department has clearly updated its version to address, for example, the Playbook training standards, some additional provisions could usefully be included:

- WorkSafe now requires that employers have formal policies addressing bullying and harassment. The WorkSafe policy is D3-115-2: it is derived from the employer's general

[33] The WCA was updated under the *Statute Revision Act*, with the revised statute brought into force with effect as of 6 April 2020, pursuant to OIC 103, 20 March 2020, and OIC 153, 30 March 2020. Under the *Statute Revision Act*, the updating can clarify and reorganize the statute in question, but not make substantive changes to it.

[34] The language in section 3.1(1.1) of Part 3 of the OH&S Regulation notes that the employer's OH&S program must cover the "whole of the employer's operations".

[35] The need for a separate joint committee (or worker representative) for fire departments is set out in s. 31.3 of Part 31 of the OH&S Regulation.

obligations to ensure the health and safety of its workers.[36] The Department's OH&S Program should be amended to reflect this obligation. If the District has such a policy in place, the Department's program can cross-reference that policy, which should then be implemented through its OGs;

- The OH&S Program addresses SCBA use in sections 2.05, 2.06, 5.09 and OG 2.02.01. WorkSafe requires that, where SCBA are required to be used, employers must have a formal "respirator program" in place, and the OH&S program should be updated accordingly. Although OG 2.02.01 refers to a standalone "Sooke Fire Rescue Department Respiratory Protection Program" no such program was included in the materials provided. An example of such a program from another CRD-area fire department has been separately provided to the Department for its review.

- Section 11 of the OH&S Program addresses the creation and operation of the joint committee. This joint committee requirements are reviewed in the next section. Section 11 should be updated to correspond with those requirements. We have separately provided the Department with template language regarding joint committee establishment as well as a form of terms of reference for a joint committee. These templates can be modified as required to meet the Department's requirements.

5.2 Joint Health and Safety Committee

As part of an OH&S program, an employer is required to establish a joint committee (or appoint a worker safety representative) to review and manage safety issues in the workplace. Pursuant to section 31.3 of the Part 31 of the OH&S Regulation, 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".

The Department's joint committee is established pursuant to section 11 of its OH&S Program. Technically, since the Department operates out of two fire halls, there are two separate workplaces. Section 32 of the WCA permits application to be made to the WorkSafe Board to permit an employer to maintain a single joint committee for more than one workplace. It was not clear from the available materials as to whether a formal application had been made to operate only one joint committee.

Section 11 of the OH&S Program could usefully be reviewed, updated and expanded. In Section 11.01, it states that the committee will comprise three members of management and three firefighters. In section 11.02, however, the Sooke Volunteer Fire Fighters Association elects "four Safety Representatives".

[36] The policy was implemented in 2013. See: https://www.worksafebc.com//board-of-directors-decisions/bod-2013-03-20-workplace-bullying-and-harassment-policies.

The role of the individuals selected under section 11.02 is unclear. As noted in section 34 of the WCA, where there are both union and non-union employees, both must be represented on the joint committee (see below).

The WCA sets out detailed and prescriptive requirements regarding joint committee establishment and operation:

> **Section 33:** This section addresses membership on the joint committee and appointment of co-chairs from amongst the employer and employee representatives:
>
> (a) a joint committee must have at least four members;
>
> (b) it must consist of worker and employer representatives;
>
> (c) at least half the members must be worker representatives; and
>
> (d) it must have two co-chairs – one selected by the worker representatives and one selected by the employer.
>
> **Sections 34 and 35:** These sections set out the process for selecting the worker and employer representatives:
>
> (a) if the workers are represented by one or more unions, the worker representatives are to be selected according to the procedures established or agreed on by the union or unions (s. 34(a));
>
> (b) if none of the workers are represented by a union, the worker representatives are to be elected by secret ballot (s. 34(b));
>
> (c) if some of the workers are represented by one or more unions and some are not represented by a union, the worker representatives are to be selected in accordance with ss. 34(a) and 34(b) in equitable proportion to their relative numbers and relative risks to health and safety; and
>
> (d) the employer representatives on a joint committee must be selected by the employer from amongst persons who exercise managerial functions for the employer and, to the extent possible, who do so at the workplace for which the joint committee is established (s. 35).
>
> As there are two workplaces represented by the one joint committee, care should be taken to ensure that individuals ordinarily responding out of each of halls are on the committee.
>
> **Section 36:** This section sets out ten required duties and functions of a joint committee. We recommend that these duties and functions be incorporated into the description of the joint committee's role, as they are listed in section 36 (amending the final item to read: "to carry out any other duties and functions prescribed by WorkSafe BC regulation").

Section 37(2): The joint committee is required to meet at least monthly. It is essential that proper records be kept of each meeting and it is helpful if a pre-set agenda for such meetings (covering the regular matters that need to be considered, and providing an opportunity to raise new matters) can be established. Meeting records should track all decisions, and bring forward to the next meeting any matters that require time to address.

Section 39: This section requires an employer to respond to recommendations from the joint committee.

Section 40: This section deals with the payment of members for work on the committee. Under section 40, employers ordinarily must grant worker representatives time off from work and to pay them for that time. In volunteer and paid-on-call departments, we usually recommend that the employer develop a stipend for members serving on the joint committee (i.e., a set amount per year for regular fulfillment of this function), with a separate hourly rate if members are required to participate in an investigation of a workplace accident or similar event. This issue is addressed further, below.

Sections 41, 42: Under sections 41 and 42, the employer must provide appropriate administrative support to the joint committee, and paid educational leave time for either the worker representative or the committee members. For paid-on-call members this would be met by treating time spent by the worker representative on such education as compensable.

Sections 43 – 44: These sections set out certain administrative requirements, including:

(a) handling of records and distribution of reports (section 43)

(b) posting of names of joint committee members (s. 44(a));

(c) the keeping and posting of minutes of the joint committee meetings (s. 44 (b)); and

(d) the posting of WorkSafe BC orders (s. 44(c)).

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

The rules pertaining to the operation of the joint committee/worker representative system were updated in 2016, with effect from 2017. Under BC Reg. 312/2016, which amended the OH&S Regulation with effect from 3 April 2017:

- **Annual Evaluation:** there must be an annual, written evaluation conducted examining, among other things:

- whether the joint committee membership requirements and selection processes met WCA requirements (ss. 3.26(3)(a)(–) - (iii));
- whether the joint committee fulfilled each of its duties and functions and met as required by the WCA (ss. 3.26(3)(iv) and (v);
- whether the joint committee operated as provided in the WCA, including with respect to training, administrative support and other specified matters (ss. 3.26(3)(vi) – (xii)); and
- the effectiveness of the rules of procedure and overall effectiveness of the joint committee (ss. 3.26(4) & (5); and

- **Mandatory Training:** members of a joint committee must receive certain specified training, aggregating, in total 8 hours, and worker representatives must receive similar training aggregating 4 hours (ss. 3.27 (2) & (3)), covering various matters specified in the regulations.

The training obligations apply only to new members of a joint committee or new worker representatives, in each case, appointed after 3 April 2017. In certain circumstances, the training obligation is waived where a new appointee has already received the training in question (ss. 3.27 (6) & (7)). Certain records keeping obligations are attached to the new, explicit training requirements.[37] The minutes from the various committee meetings indicate that training opportunities are being offered to committee members. We would recommend clearly documenting in the minutes when new committee members have received the required training.

The proper operation of a joint committee can be a time-consuming task. One of the issues frequently identified 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 District should consider the following:

- whether the individuals who participate on the joint committee 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;
- where training is required for committee members, the training pay otherwise paid to members for attendance at practices should be paid (or compensation otherwise be paid for this work); and
- where possible, the regular monthly meetings of the joint committee could be timed to occur at the end of the one of the regular practice nights. Most monthly joint committee/worker representative meetings will not be long, and the individuals involved

[37] B.C. Reg. 312/2016, ss. 3.26(8) & (9).

can be excused from any post-practice apparatus or equipment clean-up to attend the meeting.

We note that the Department is already aligning joint committee meetings with the training nights, but that there is no additional pay for paid-on-call ("POC") members for their work on the Joint Committee (it being treated as an extension of the training night, for which pay is already received). It may still be useful to review whether pay for the additional training required to serve on the joint committee, and for any additional administrative work (e.g., conducting the annual evaluations, participating in accident investigations, undertaking regular workplace hazard reviews, etc.) should be compensated.

5.3 Joint Committee Minutes

We reviewed the Joint Committee minutes for the period from the beginning of 2020 to the spring of 2021. It is clear that the Joint Committee's work was interrupted by the pandemic, as several meetings were missed in the period from March – May 2020. From the minutes, it is clear that there is a process for bringing forward new matters and concerns, and for tracking action items raised during meetings.

The minutes, however, are less clear about documenting required regular matters, such as safety checks on the fire halls. The fact that the check has been made at each hall should be documented, even if no issues were found or concerns were raised. Similarly, there is no evidence that the Joint Committee is undertaking an annual review of the OH&S Program (as required by section 13 of that program) or the required evaluation of the Joint Committee's own operation.

We would recommend adding a section to the meeting agenda relating to regular health and safety checks, the results of which are then documented. Similarly, a process should be introduced for annually reviewing the overall OH&S program and evaluating the committee's operation.

5.4 Recommendations

Recommendation: The Department's OH&S program should be reviewed and updated. When updated, the following issues should be addressed:

- a formal policy addressing bullying and harassment should be introduced. If such a policy has already been implemented by the District, that policy should be implemented in the Department through its OGs;
- the Department should develop a formal respiratory protection program;
- the process for appointing the members of the Joint Committee, and the Joint Committee's role, functions and responsibilities, should be reviewed against the requirements of the WCA and the OH&S

Regulation, and updated appropriately. A template has been provided to the Department to help guide its review and updating process; and

- the other matters identified in section 5.1, 5.2 and 5.3 be addressed.

6. Mutual and Automatic 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 process can result in a significant delay before assistance arrives.

Automatic aid agreements are a variant under which the participating departments agree that they will be automatically dispatched to assist neighbouring departments. Many of these types of 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, technical rescue, etc.), the time of day (e.g., call-outs during work days when responses may be weak for volunteer or paid-on-call departments) 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, which enhances the safety of residents and responders alike.

The Fire Underwriters grant partial staffing and apparatus credit to departments using aid agreements, with more credit generally being granted for automatic aid than mutual aid.

The District is party to several fire service mutual aid agreements:

- agreement between View Royal and the District, dated 13 December 1994 (the "View Royal Agreement");
- agreement between Langford and the District, dated 16 May 1995 (the "Langford Agreement"); and
- Fire and Rescue Services Mutual Aid Agreement between the CRD (in respect of the East Sooke and Shirley Volunteer Fire Departments), Metchosin and the District, dated 4 December 2019 (but with effect from 1 January 2019) (the "CRD-Metchosin Agreement").

In addition, the District is party to the area-wide "Disaster Mutual Aid Agreement," dated with effect from 21 November 2000, made among the CRD municipalities relating to major disasters or emergencies as contemplated by the *Emergency Program Act*. This agreement and its potential replacement are considered in the section of this report that examines the Sooke Emergency Program.

6.1 View Royal and Langford Agreements

The View Royal and Langford Agreements are in substantially the same form. Both date from the 1990s, and are fairly basic (though typical, in our experience, of their vintage).

These agreements:

- create an obligation to provide assistance except where the equipment and personnel are required in the responding department's jurisdiction;
- address at a high level the issue of incident command;
- make the provision of resources free of charge;
- permit a supplying party to recall resources from an incident;
- make available the provision of "standby" fire protection an option;
- include an indemnity from the "assisted Party" to the "supplying Party" in the event of any claims against the latter, including for negligence or the failure to respond to an aid request;
- extend their coverage to include medical responses, rescue operations, mutual aid to other fire services, hazmat incidents and public service; and
- have no set term.

There are two notable aspects of these agreements:

- there is no express description of the circumstances in which mutual aid may properly be requested; and
- the obligation to provide assistance is somewhat more onerous than in most modern forms of these agreements, where the provision of aid is usually made purely discretionary.

As indicated in section 6.3 below, there are a number of other issues which modern iterations of aid agreements also cover off, ranging from the training levels of responding members, the use of incident command systems, joint training and common personnel accountability systems to the operational powers and authority of a responding department, the use of common operational guidelines, and periodic reviews of mutual aid responses.

We would suggest that the District look at updating its mutual aid agreements with its neighbours, applying current best practices for such agreements. It is possible, moreover, to create a single agreement covering all mutual aid partners – even in circumstances where one party may not provide mutual aid to another. Using a single agreement will ensure consistency of approach and reduce the administrative maintenance required for managing these agreements.

6.2 CRD-Metchosin Agreement

The CRD-Metchosin Agreement was executed in late 2019, but made retroactively effective to 1 January 2019. Section 2 stipulates that the agreement "amends the mutual aid agreement between the Regional District and the District of Sooke dated January 13, 2010, by adding the District of Metchosin." This provision is inaccurate: Metchosin was actually added as a party in 2014.[38] In addition, as a matter of form, it would have been preferable to have this agreement, which is otherwise in identical form to both the 2010 and 2014 agreements, simply supersede the prior agreements. As it stands, in theory all three agreements continue in existence which probably was not the intent (nor was it necessary, given that the most recent agreement is in identical terms to the earlier ones).

The current agreement's term expires at the end of 2023.

Under the CRD-Metchosin Agreement:

- the authority of each department to respond to a mutual aid request is confirmed (though their operational powers are not specified) (ss. 3 and 4);
- the conditions and expectations underlying a request for mutual aid are specified in sections 5 and 6;
- the extent of a Responding Party's obligation to respond to an aid request is identified in section 7 and 8 (discussed further, below);
- basic incident command is specified in section 9;
- the authority of a Responding Department to recall or withdraw its resources, and provision for the early release of those resources, are set out in sections 10 – 12;
- the provision of resources by a Responding Party is made free of charge (s. 16); and
- an indemnity in favour of a Responding Department is set out in section 19, and insurance requirements for the Requesting Party are identified in section 20. These two provisions are examined further, below.

Obligation to Respond – sections 7 and 8

Sections 7 and 8 define the obligations of a "Responding Party" to provide assistance to party requesting assistance. Section 7 is framed on the basis of the Responding Party's Fire Chief or Officer in Charge deciding "whether or not he has personnel and/or equipment available to respond to the Emergency." Section 8 then stipulates that nothing in the Agreement is to be interpreted as requiring a Responding Party to provide equipment and personnel where it

[38] Fire and Rescue Services Mutual Aid Agreement dated 17 March 2014, made between the CRD, Metchosin and the District.

"reasonably considers that the personnel or equipment are or may be required by the Responding Party".

As noted in the discussion of the Langford and Metchosin Agreements above, we would suggest that it is better to formulate the obligation to provide mutual aid resources as being purely discretionary. The reason for this approach is to ensure that there is no opportunity for a third party to attempt to found a claim on the basis that assistance should have been provided and that the failure to provide that aid resulted in greater damage. Even though the decision to provide or not provide aid is likely covered by the indemnity in section 19, it is better to preclude the possibility of that claim being raised. This less binding formulation of the response obligation is not likely to alter whether or not a Responding Party will provide assistance – rather, it is intended to limit any potential liability.

Indemnity and Insurance – sections 19 and 20

In section 19, the Requesting Party provides an indemnity to the Responding Party in relation to the provision of assistance or any breach of the agreement by the Responding Party. This indemnity, however, does not extend to "negligent acts or omissions" of the Responding Party. This is a very limited indemnity, and somewhat unusual in the context of mutual aid agreements. More typically, the indemnity covers negligence, but excepts out gross negligence and wilful misconduct by a Responding Party (as was done in the View Royal and Langford Agreements). This issue may bear discussion among the parties as to the preferred approach to risk allocation and liability.

The insurance requirements in section 20 should be reviewed. The opening language to that section reads, in part, that the "Requesting Party shall provide" certain insurance. This phraseology seems incorrect. Rather, it should require the Requesting Party to "obtain" such insurance (since it is not expected to "provide" insurance to the other parties). Similarly, paragraph 20(a)(ii), which limits the naming of additional insureds to the CRD seems inappropriate.

We would suggest that this provision simply require that each party maintain an agreed level of insurance, naming the other parties as additional insureds in relation to claims arising under or connected with this agreement.

Subsection 20(b) similarly needs some attention. Although it refers in its title to automobile insurance, in the operative provision it stipulates that the "Requesting Party shall maintain Third Party Legal Insurance". This phraseology seems incorrect. Again, all parties should be required to carry appropriate insurance on their apparatus and other vehicles.

6.3 Aid Agreements – List of Principal Issues

This section sets out in summary form a list of the principal issues that mutual and automatic aid agreements ideally should address. When the various aid agreements are reviewed and updated, these issues should be considered as part of that process:

Powers

Fire departments do not have any inherent power to operate outside of their ordinary jurisdictions. As such, an aid agreement should clearly set out the powers of each of the departments when operating in another department's jurisdiction. There are two basic approaches that may be adopted:

- a responding department may be granted the same powers when operating in the requesting department's jurisdiction, as is enjoyed by the requesting department; or
- a responding department can exercise the same powers in the requesting department's jurisdiction as it has in its own service area.

We also recommend that each jurisdiction's fire department operational bylaw (the bylaw which grants powers to its fire department) include a specific provision stating that a responding department will have the powers granted to it under the aid agreement, or, if no powers are specifically granted, will have the same powers as the requesting department.

Authority

Each participating department should ensure that its operational/establishment bylaw permits it to respond extra jurisdictionally as contemplated by the aid agreement. For fire departments which operate in local service areas (e.g., operated by either a regional district or an improvement district), consideration should be given to updating the service establishment bylaw to expressly contemplate the provision of mutual and automatic aid.

Types of Responses

Aid agreements, particularly automatic aid agreements, can and should be tailored to the specific needs of the participating departments. Agreements can provide for responses to all calls, all the time, or can be limited as considered appropriate by the parties. For mutual aid agreements, the basis on which a call is to be made and the process by which assistance is requested, should be set out in reasonable detail (alternatively, the Agreement can require the participating departments to develop common operational guidelines which detail when and how mutual aid requests are to be made).

For automatic aid agreements, it is typical to specify (often with some detail) what calls are to result in automatic aid responses. The following are examples of some of the conditions that can be included:

- limited to certain call types, such as "confirmed structure fires" or fire in certain categories of buildings (high rises, industrial complexes, schools, care homes, etc.);

- limited to certain specialty services, such as technical rescue, extrication and/or hazmat;
- limited to responses during certain times of the day (e.g., between 0700 and 1800);
- limited to certain days of the week (e.g., Monday to Friday);
- limited to certain specific regions of each party's response area (e.g., along a defined border zone of each party's fire protection area); and/or
- limited to certain types of assistance – such as water tender support.

In each case, the parties need to develop specific response protocols – what equipment and personnel will be committed for each response type. The aid agreement should require the participating departments to develop and agree these protocols, and to review and update them regularly (generally annually).

Operational Matters

The nature of the operational matters that need to be covered will vary depending on the range of responses involved. Consideration should be given to the following issues:

- Specifying the minimum training levels for personnel from the responding department, and a common system for readily identifying each member's training and qualifications during an incident (e.g., colour-coded helmets, or flashes);
- Setting out a common approach to incident command – preferably using the Incident Command System (the "ICS") as specified in the BC Emergency Management System - including how transfers of command and/or formation of unified command will be effected. The aid agreement can either specify the incident command system or require that the participating departments' chief officers develop an agreed approach in common operational guidelines.
- Establishing any response limitations for each participating department based on its Playbook Service Level, but confirming that each Department can operate at its chosen service level;[39]
- Specifying a common personnel accountability system or requiring that the participating departments' chief officers implement a common system;
- Requiring that the participating departments' chief officers develop:

[39] So, where one department operates at the Interior Operations Service Level, and the other at the Exterior Operations Service Level, the Agreement should confirm that Interior Operations department can operate at its higher level of service in the Exterior Operations department's service area. This does not permit the Exterior Operations department or its members to operate at this higher level and careful thought needs to be given to how incident command is managed in such circumstances.

    - common operational guidelines for all potential combined responses (which OGs need to include the agreed ICS, and accountability system); and
    - common communications protocols for emergency scene communications (e.g., talk groups, identification protocols, etc.)

- Requiring that the parties ensure they have interoperable communications equipment, as well as (to the extent practicable) interoperable principal equipment and apparatus;
- Requiring that each party undertake appropriate pre-planning of principal or major risks which may involve a combined response, and sharing such pre-plans with the other participating department(s);
- Requiring that the parties undertake periodic joint training, including tabletop exercises simulating major incidents;
- Setting out a process for regularly reviewing and assessing the effectiveness of combined operations (this should be done at least annually);
- Setting out a process for updating response protocols and amending the list of combined events, or other limitations, that are covered by or included in the aid agreement; and
- Requiring a periodic (at least triennial) review of the underlying aid agreement.

Dispatch Provider

While both mutual and automatic aid agreements require close cooperation with the parties' dispatch provider(s), automatic aid arrangements require particular attention. Such an agreement should:

- Require that any dispatch provider be provided with a copy of the aid agreement (and any amendments that may be made to it), along with the corresponding dispatch protocols. The dispatch protocols will need to be developed in consultation with the dispatch provider(s); and
- Ensure that each dispatch provider is invited to participate in any periodic review of the agreement's operation or debriefings that may be held.

Refusing an Aid Request

As discussed above, the aid agreement's provisions that permit a responding department to refuse a dispatch request (whether for automatic or mutual aid) should be carefully considered. We would suggest that the right to refuse a request should be made discretionary, to avoid potential liability concerns, though this is an issue that requires review with legal counsel. The process by which such refusal is communicated to the requesting department and dispatch provider should be clearly set out in the aid agreement and in each participating department's operational guidelines.

6.4 Recommendations

Recommendation: We have set out a series of matters in section 6.3 that should be addressed in mutual and automatic aid agreements. We would recommend that the Department and District review its existing aid agreements and update them accordingly.

Recommendation: When such updating process is undertaken, it may make sense create a single agreement covering the View Royal, Langford, Metchosin and CRD departments, rather than continuing to manage three separate agreements. The single agreement can make such specific provision or contain any limitations that may be appropriate, to reflect the willingness or capability of one department to provide mutual aid to another. It also would be possible in this single agreement to include provision for automatic aid between two or more departments, on such basis as may be appropriate.

Recommendation: The provisions in the CRD Agreement covering liability allocation and insurance coverage should be reviewed.

7. Service and Other Agreements

The District is party to a number of service and other agreements involving the Department and its operations:

- A Fire Prevention and Suppression Service and Emergency Response Agreement dated 18 July 2016, between the District and the CRD, relating to the provision by the ESVFD of emergency response services to the Silver Spray development (the "CRD Service Agreement");
- An agreement dated 8 December 1989, made between the Sooke Fire Protection District and the Sooke Band Council, relating to the provision of fire protection services on T'Sou-ke First Nation lands (the "T'Sou-ke Agreement");
- An agreement dated 24 November 1993, made between the CRD and the Sooke Fire Protection District (the former improvement district) relating to the provision of rescue services in those portions of the Sooke Electoral Area outside of a recognized fire protection area (the "Road Rescue Agreement");
- An agreement related to confined space rescue services dated 23 June 2020, between the District and School District No. 62 (Sooke) (the "SD 62 Agreement"); and
- A licence of occupation granted by the BC Transportation Financing Authority in favour of the District, dated 24 October 2019, relating to certain lands used for training purposes (not commented on in this report).

The District also has very recently entered into a rescue agreement with the District of Saanich, relating to specialized responses to tower crane incidents. This agreement is dated 1 February 2022, and covers high angle rope rescue as required for tower crane operations. The agreement is provided on a fee-for-service basis (so, incident-specific charges only), and is for a five-year term. That agreement is not otherwise reviewed below.

7.1 CRD Service Agreement

The CRD Service Agreement relates to the provision by the ESVFD of fire protection and emergency response services into the Silver Spray development. Silver Spray is within the District's municipal boundaries as a result of a 2004 boundary extension, but is located on the south side of the Sooke Basin.[40] Under the Supplementary Letters Patent, Silver Spray was

[40] Lt. Gov. in Council, OIC 1155, 2 Dec. 2004, granting supplementary letters affecting the District, the CRD and the East Sooke Fire Improvement District (the "Supplementary Letters Patent"). The latter's boundaries were re-drawn to exclude the Silver Spray development, but the East Sooke Fire Improvement District and District were required to enter into a fire services agreement covering Silver Spray – see s. 4.1 of the Supplementary Letters Patent.

declared to be a "municipal local service area … for the purpose of fire protection,"[41] and established as such by Bylaw No. 239.

Access from the Department's Hall 2 is through the ESVFD's service area, and involves a travel distance of more than 18 kilometres. As such, the District has contracted with the CRD to provide the primary emergency response into this area. The CRD Service Agreement also covers the provision of water tender services into an eastern portion of the District.

Under the CRD Agreement:

- the ESVFD is contracted to provide fire suppression and emergency response services, including to motor vehicle incidents, in the Silver Spray development area, as well as water tender services to an area in the eastern portion of the District, along Sooke Road (ss. 3.1(a) and (b));
- the CRD has committed to make best efforts to use personnel trained to the Interior Operations service level under the Playbook, but is permitted to use members trained to the Exterior Operations service level, and the actual level of service provided at any incident is determined by the ESVFD incident commander. Moreover, notwithstanding the qualified commitment to an Interior Operations service level, the CRD is not required to provide services beyond the level provided within the ESVFD service area (s. 3.2);
- the CRD is required to provide reporting to the District on fires that occur (but not other incidents) (s. 3.3) and the District acknowledges that the ESVFD lacks the training and equipment necessary to conduce firefighting in high rise buildings (s. 3.4);
- the services are provided on a 24-hour per day basis (s. 4);
- section 5 contains certain limitations on the CRD's obligation to provide services and certain rights to withdraw apparatus and personnel if needed elsewhere (discussed below);
- the fee for service is set based on residents of the Silver Spray development paying the same residential tax rate as residents in the ESVFD's service area (in effect, paying a proportionate share of the ESVFD's costs) (s. 6); and
- mutual indemnities are given in which each party agrees to release and indemnify the other for any negligent acts or omissions for which it is responsible (ss. 7.1 and 7.2), and there is a mutual requirement to maintain comprehensive general liability insurance, written on an occurrence basis, in the amount of not less than $2.0 million per event (ss. 8.1 and 8.2).

The CRD Agreement had an original three-year term expiring in December 2018; a renewal extending the agreement through 2022 has been prepared but not executed. The parties are actively negotiating a new agreement. Although the 2018 version of the agreement has

[41] Supplementary Letters Patent, ss. 5.0, 5.1 and 5.2.

technically expired, the parties have continued to act as though it remains in force (including as to payments for and provision of services). The existing agreement should be formally extended until a new agreement is negotiated.

Based on discussions with the District, we are aware that there is concern regarding the cost of the agreement. Silver Spray residents essentially pay double for fire protection, since the cost of the Department is paid, in part, through their municipal taxes and they also pay a separate levy reflecting the cost of the services provided by the ESVFD.

In terms of approach to the costing of the provision of fire services, there are two principal methods used:

- an agreed cost for service, which is then subject to annual adjustments to reflect inflationary or other cost increases; or
- a proportionate approach, where the residents receiving the service pay their share of the cost of operating such fire service.

The current CRD Agreement is based on the latter. If this approach is retained, we would suggest that the language in section 5, which qualifies the ESVFD's obligation to provide service and permits it to withdraw resources from an active incident, should be revisited. Since the residents in Silver Spray are paying their proportionate share of the ESVFD's costs, they should receive service on the same basis as residents of the ESVFD's service area. While this should not preclude the reassignment of emergency resources (e.g., from, say, a minor motor vehicle incident to a structure fire), the residents of Silver Spray should be entitled to receive the same treatment as residents of the ESVFD service area.

If the parties move to a negotiated fee for service (at a rate lower than the proportionate share of the costs), then retaining section 5 may be appropriate. However, we would suggest that a CRD response to a mutual aid request should be a lower priority than a response into the Silver Spray service area.

In addition, in any new agreement, an express provision should be added that sets out the operating powers and authority of the ESVFD when responding into the Silver Spray development. There are two formulations that can be considered in relation to such responses:

- the ESVFD is entitled to exercise in the Silver Spray development the same powers and authorities as it is entitled to exercise in its own service area; or
- the ESVFD is entitled to exercise the same powers and authority as the Department.

If the latter formulation is adopted, the parties should review the respective operational powers of each department to ensure that there is no uncertainty for the ESVFD, as to its operational response powers.

7.2 T'sou-ke Agreement

The T'sou-ke Agreement is one taken over by the District from the original Sooke fire protection improvement district when the District was incorporated in 1999.[42] This agreement dates from 1989. Although the agreement references two schedules, those schedules were not attached to the form of agreement provided for review. At a high level, under this agreement:

- the T'sou-ke First Nation (the "TFN"), is responsible for ensuring the availability of appropriate water supplies and hydrants (ss. 3 and 4);
- the District commits to providing "firefighting service" to "Residences situated on Band land" (s. 5), on a 24-hour per day basis from a fire hall located within the District (s. 6);
- the District's obligation to provide firefighting services is dependent on the availability of staffing and equipment at the time of an incident, and availability of water on-site of the TFN lands (s. 7);
- the District, on 24 hours' notice, is permitted access to TFN lands to conduct fire prevention, fire investigation and fire inspection work (though fire cause investigations do not require notice). The TFN is required to comply with "all directives resulting from inspections" carried out by the Department (s. 8);
- the TFN broadly indemnifies the District against any claims arising from the T'sou-ke Agreement (s.9);
- the TFN is required to annually report the number of residences on TFN lands (s. 10) and pays a service fee of $50 per residence and $100 per "Cultural Hall" (with a minimum fee being payable, based on 18 residences) (s. 11). The District is permitted to increase the cost annually on notice to the TFN and the TFN may accept the price increase or reject it and terminate the agreement (s. 13). The pricing was changed in 1993 to $150 for each residence built after 1990, $100 for each residence or Cultural Hall built prior to 1990, and $50 for each mobile home: the service cost has not been updated since that time;[43] and
- the Department was empowered by the TFN, "insofar as it is able", to demolish structures to prevent the spread of fires (which loosely tracks the power granted in s. 66(1)(b) of the *Community Charter*) (s. 16).

[42] Lt. Gov. in Council, OIC 1159, 2 Sept. 1999, issuance of Letters Patent incorporating the District. The Sooke Fire Improvement District was dissolved and all of its assets and liabilities, including contracts and agreements, were transferred to the District under section 16.

[43] Letter from R. Raynor (Fire Chief) on behalf of the Sooke Fire Improvement District to Sooke Band Council, 2 September 1993; and Email from C. Norris-Jones, Acting Fire Chief, 22 October 2021.

Given its age, it likely would be useful to undertake a revision and updating of this agreement in consultation with the TFN. We understand that some work was done along these lines several years back, but never completed. When the agreement is updated:

- consideration should be given to more clearly stating the Department's powers and authority when responding to an emergency incident;
- if services in addition to structure fire protection are to be included (e.g., medical responses, technical rescue, hazmat, etc.), they should be set out in the agreement;
- there should be a consultative process created for reviewing issues arising under the agreement, and regular (at least annual) reporting by the Department on responses in TFN lands;
- from a fire prevention perspective, it may be useful to include fire safety inspections of any TFN institutional buildings as part of the agreed service;
- if the agreement retains the fixed fee approach to service delivery (and that approach seems appropriate, given the complexities of determining land and property values on TFN lands), provision for annual inflationary increases should be included (e.g., 2% or BC CPI, whichever is greater); and
- the indemnity, if retained substantially as given, should explicitly except out coverage for gross negligence or wilful misconduct.

7.3 Road Rescue Agreement

The Road Rescue Agreement is another contract inherited from the original fire protection improvement district. The agreement dates from 1993 and has no fixed term. Under the Road Rescue Agreement:

- the District commits to providing assistance response within the defined service area, such assistance response comprising the following (ss. 1 and 5):
    - basic rescue and vehicle extrication; and
    - basic high angle rope rescue;
- the assistance response is to be provided "within a reasonable time in all circumstances" after a request for assistance is received, although the District is permitted to allocate its resources to any incident that "appears to be more urgent" (s. 7) and is not required to respond if its equipment or personnel are unavailable for any reason or if a response would put its equipment and personnel at risk (s. 8);
- the services are provided for a nominal fee of $1 per annum (s. 5); and
- liability by the District is disclaimed under section 9, and a form of indemnity from the CRD is in favour of the District is given in section 10 (discussed below).

As with the T'sou-ke Agreement, this contract is quite old and probably should be refreshed.

Among other things, the language in the indemnity in section 10 should be reviewed and clarified. This provision reads as follows:

> The *Regional District* agrees to release, indemnify and save harmless the *"District"* from all actions, causes of action, claims, suits, proceedings, losses, harm and damage suffered by the *"Regional District"*, including death, bodily injury or property damage of any kind arising from or connected to, whether directly or indirectly, the exercise of failure to exercise by the *"District"* of any right or obligation under this Agreement.

The release should have been separated from the indemnity. The intent appears to be that the CRD would release the District from any claims that the CRD may have, and also would indemnify the District against any claims that may arise from the District providing the services under the agreement (whether a claim by the CRD or a third party). Assuming that was the intention, the indemnity language does not appear to have that effect since it says that the indemnity relates to claims or damage suffered by the CRD, not by the District.

In addition, when revised, this agreement:

- should use the NFPA standards when describing the level at which the extrication and technical rescue services will be provided; and
- should ensure that liability does not attach if the District fails to respond to a call. Rather, it should only have an obligation to notify dispatch (and through dispatch, the CRD) that it is not responding.

It is possible that the existence of this agreement would preclude the Department from seeking a task number and cost reimbursement from Emergency Management BC ("EMBC"), for extrication responses outside of its ordinary jurisdiction. Given that the Department no longer regularly responds under this agreement,[44] it may be better to terminate it and agree with the CRD that, if needed, the Department will respond, subject to receiving an EMBC task number.

7.4 SD 62 Agreement

The SD 62 Agreement provides for confined space rescue capabilities to ensure that SD 62 can meet its WorkSafe obligations under Part 9 of the OH&S Regulation. The agreement was executed in June 2020 and has a three-year term. At a high level, the District commits to making available the Department to respond to confined space incidents, and to conduct inspections of confined spaces as contemplated by the OH&S Regulation, to assist SD 62 in meeting its regulatory requirements.

[44] Email from C. Norris-Jones, 25 October 2021. The Acting Fire Chief noted that the Shirley Fire Department is now handling responses in the service area covered by the Road Rescue Agreement, and that the Department has "not done a road rescue in this area in quite some time."

SD 62 remains responsible for otherwise meeting its Part 9 requirements, including identifying confined spaces, conducting the necessary hazard assessments, preparing a confined space entry program, and providing notice to the Department before making entry into a confined space (ss. 5, 6 and 13). SD 62 also agrees to provide the Department with its list of confined spaces and corresponding hazard assessments on request (s. 12).

SD 62 agrees to pay the cost of any emergency response in section 18, though the basis on which those costs will be determined is not set out in the agreement. Although there is an indemnity in favour of the Department (s. 22), its scope is relatively limited, covering only claims arising from a default by or attributable to SD 62. The Department remains liable if its members are negligent in the delivery of the any service.

We would recommend that section 13, which deals with certain obligations of SD 62, be revisited. Its drafting is not as clear as it should be. There are three paragraphs in that section covering notification of the Department of planned entries, SD 62 committing to reschedule an entry if the Department advises it may not be available and setting out a process for notifying the Department of emergencies. Those three sections are introduced by the phrase:

> **"<u>If</u>** the School District shall […]". [emphasis added]

It is not clear why the conditional "If" has been added. When read in light of the three paragraphs that follow, that conditional likely should be removed, creating a series of positive obligations on SD 62.

We also would note that, although SD 62 is required to "assume liability for any costs associated with an emergency response" under section 18, the agreement does include any provision detailing how such costs will be calculated.

7.5 Recommendations

CRD Agreement

Recommendation: The existing CRD Agreement has technically expired: the parties should formally extend it until new arrangements are negotiated.

Recommendation: When this agreement is renegotiated:

- to the extent that residents of Silver Spray are paying a proportionate share of the ESVFD (as currently is the case), the service they receive should be fundamentally equivalent to that of a resident of the ESVFD's service area; and
- the agreement should expressly provide for the ESVFD's operational powers when responding to an incident in the Silver Spray development.

T'sou-ke Agreement

Recommendation: The T'sou-ke Agreement was inherited from the original fire protection improvement district. It could stand updating. We have identified a number of issues for consideration when the new agreement is being negotiated, including:

- clearly stating the Department's powers and authority when responding to an emergency incident on TFN lands;
- if services in addition to structure fire protection are to be included (e.g., medical responses, technical rescue, hazmat, etc.), they should be set out in the agreement;
- there should be a consultative process created for reviewing issues arising under the agreement, and regular (at least annual) reporting by the Department on responses on TFN lands;
- from a fire prevention perspective, it may be useful to include fire safety inspections of any TFN institutional buildings as part of the agreed service;
- if the agreement retains the fixed fee approach to service delivery (and that approach seems appropriate, given the complexities of determining land and property values on TFN lands), provision for annual inflationary increases should be included (e.g., 2% or BC CPI, whichever is greater); and
- the indemnity, if retained substantially as given, should explicitly except out coverage for gross negligence or wilful misconduct.

Road Rescue Agreement

Recommendation: This agreement is quite dated, having been inherited from the original fire protection improvement district. The Department has indicated that it effectively no longer responds under this arrangement, as road rescue is being provided by the Shirley Fire Department. As such, we would recommend that it be terminated, and if a road rescue response is required, the Department can respond under an EMBC task number. Alternatively, the agreement should be refreshed, and the issues identified in section 7.3 be considered and addressed.

SD 62 Agreement

Recommendation: Section 13 of the SD 62 Agreement should be revised to clarify some minor drafting issues, and section 18 should be supplemented with details on how the costs of any response are to be calculated.

8. Fire Underwriters

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

It has been nearly 20 years since the District and its Department were formally reviewed by the Fire Underwriters. In the last formal report, the Department was rated as follows:[45]

Rating Type	2002 Classification
PFPC (with hydrants)	7
PFPC (no hydrants)	9
DPG (with hydrants)	3
DPG (no hydrants)	3B

It should be noted that this form of report is very dated. The "DPG 3" rating for the areas with hydrants, would now be called a "DPG 3A". These ratings mean that the commercial properties are enjoying reasonable saving on their insurance (in the range of ~25% - see below), while residential property owners are likely saving 50% or more.

As the existing report is so dated, any specific advice, recommendations or analysis are no longer particularly relevant. Indeed, the Fire Underwriters' methodology has changed quite significantly since 2002. As such, this section will outline how the Fire Underwriters reports are constructed, the issues that they consider, and the impact that their ratings have on insurance costs.

The Fire Underwriters are a national organization administered by Opta Information Intelligence. It has operated under a variety of names in the past (including SCM Risk Management Services Inc.), but in each instance, the organization was, and we believe 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.

[45] The last Fire Underwriters' report is dated 7 June 2002; the ratings are shown on pp. 1-2.

The DPG rating generally applies to single family detached residences,[46] whereas the PFPC rating applies to multi-family residential, commercial, industrial and institutional buildings or districts, and generally is applied by the "commercial lines" arm of the insurance industry.[47]

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. Entities responsible for strata developments are required by provincial legislation to maintain insurance coverage.

Where a community has a fire department that meets Fire Underwriters' standards for performance, the cost of insurance can be significantly decreased. Thus, one of the cost-benefit analyses that underpins the investment required to establish or maintain a rated fire department is the trade-off between the taxes needed to pay for the department (and meet Fire Underwriters' standards) and the expected savings for residents and businesses on insurance costs.

With a well-rated fire department, the aggregate savings on insurance premiums often will offset, in whole or in significant part, the costs of operating the department. For an individual with a house that is assessed at a replacement cost[48] for insurance purposes of $300,000, a "protected" or "semi-protected" rating will generally result in cost saving on insurance of between more than $2,000 annually. 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.[49]

[46] Under the Fire Underwriters' 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." In addition, 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/dwelling-protection-grade.html accessed on 19 October 2021.

[47] Fire Underwriters Survey website, "What is the PFPC" at http://www.fireunderwriters.ca/public-fire-protection-classification.html, accessed on 19 October 2021.

[48] It is important to emphasize that "replacement cost" and the "assessed tax value" of a home are not interchangeable concepts. Replacement cost is driven by square footage, level of finishing and the cost of construction, while the assessed tax value of a home is driven by market factors.

[49] The rating system is described in greater detail in the next section. It must be stressed that the actual cost of insurance for any homeowner or business varies based on a number of individual and site-specific factors. While the Fire Underwriters' 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.

The following table is often shown in some Fire Underwriters' reports. The table shows the amount by which "average" insurance costs drop for residential properties as the DPG rating improves: [50]

Table 1: 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

Table 1, while somewhat dated in that it refers to average insurance costs from ~2015, is still useful in showing the material savings that result from having a semi- or fully-protected rating from the Fire Underwriters.

The savings achieved for commercial and multi-family properties comes from the Department's PFPC rating. The table below shows the estimated savings as the rating improves:[51]

[50] This table is drawn from a 2015 Fire Underwriters' report. While the estimated rates are now low (as insurance costs have risen since that time), the approximate cost savings are still enjoyed.

[51] Again, this table is drawn from a 2015 Fire Underwriters' report.

Table 2: 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 in Table 2, ratings improvements in the commercial classification do not result in linear decreases. From a cost-benefit perspective, moving a rating from PFPC 8 down to ~PFPC 4 seems to provide the optimal savings for businesses and multi-family properties. That non-linear relationship is worthy of consideration on a cost-benefit analysis between the amount required to be invested in improving the service and the expected insurance savings for owners of commercial, industrial and multi-family properties.[52] Below PFPC 4, the amount of investment needed to obtain the improved rating may well outweigh any insurance savings.

The Department is currently rated as PFPC 7, which means that the average saving for commercial and multi-family insurance is about 25%.

A complicating factor is that the ratings applied to a community are not necessarily uniform. The Fire Underwriters consider a series of issues (examined further below), which include distance from the fire hall and availability of water supplies. As such, depending on the size and nature of the service area, the insurance benefits may not be equally enjoyed by all ratepayers. Thus, if the fire zone extends more than eight kilometres by road from the fire hall, the residents outside of the eight-kilometre zone may not enjoy the cost savings received by those residents who live within the zone. For commercial properties, the maximum distance drops to five kilometres. Similarly, the ratings are better where fire hydrants are available.

[52] The amount of savings can also vary with the particular type of industry or commercial undertaking. The table gives the average of all savings, across all property types and uses.

8.1 Fire Underwriters' Methodology

8.1.1 Overall Ratings Weighting

The Fire Underwriters' ratings are weighted against the following four areas of assessment:

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

The assessment 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), from which they derive the "basic fire flow" ("BFF") for a department's service area. The BFF calculation is, in many ways, a gating item: the level at which this is set drives the apparatus needs, the staffing requirements and impacts the assessment of the water system's flow and capacity. The fire flow requirements are based on a series of calculations, including building size, height and exposures (how close one building is to another in the community). Taller buildings and more densely built communities generate a higher BFF – which, in turn, requires more apparatus, more firefighters and increased water supplies.

One of the factors included in the determination of the BFF is whether there are sprinklers in the building being considered. The better and more comprehensive the sprinklering, the lower the water flow requirements.

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

Part of the fire department assessment includes a review of the apparatus in use and its suitability for the subject department's fire risks. In general, the Fire Underwriters set 20 years as the maximum age for front-line use of apparatus by small to medium-sized communities (and recommends front-line use be limited to 15 years). It also has requirements for certain apparatus types (e.g., aerial devices) depending on its assessment of the community's fire risks, and an aggregate pumping requirement based on the BFF calculation.[53] The age of apparatus can be extended (generally to 25 years), but only by application to the Fire Underwriters and by meeting annual certification requirements. Such extension can also lead to a down-rating of a

[53] The Fire Underwriters recommend 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.

department's pumping capacity, which in turn can adversely affect the rating for the service area.

The "Water Supply" section examines the hydrant system (if present), and considers issues such as water flow, supply reliability and system redundancy, based on criteria set out in the Fire Underwriters' "Water Supply for Public Fire Protection" document.[54] In the post-2013 reports, there are 15 factors which are assessed in this category. Where no hydrant system is present or where the hydrant system only covers a portion of the fire protection area, the Fire Underwriters then look at the ability of the fire department to access, load, transport and unload water against the risks faced in the non-hydrant protected area. In such cases, the assessment is usually considered as part of the "Fire Department" analysis.

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

The "Fire Service Communications" category involves an assessment of dispatch services, paging systems and radio communications. Seven factors are assessed within this category, including the communications centre, dispatching and paging processes, and radio communications. When assessed in 2002, the Department was dispatched by Langford; it is now moving to be dispatched by Saanich. Based on Fire Underwriters' reviews of other Saanich clients, we know that the dispatch centre is very well rated.

8.1.2 Ratings System

As noted above, Fire Underwriters' reviews involve two entirely separate rating systems – one for residential properties (DPG) and one for commercial/multi-family properties (PFPC). Strata entities are subject to the PFPC rating, which is a more stringent standard, though individual units within a strata occupied on a residential basis, typically are subject to the DPG rating. The DPG rating is calculated on a five-point numerical scale, whereas the PFPC rating is based on a 10-point scale. In both cases, a "1" is the highest achievable rating. In simplest terms, the goal of a Fire Underwriters' review is to provide insurance companies with a grading of fire protection services provided within a particular fire protection area.

Insurance companies use the grading provided by the Fire Underwriters 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 Fire Underwriters' ratings (either higher or lower, depending on the insurer's perception

[54] Fire Underwriters, "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 20 January 2020.

of actual risk, competitive concerns and other factors).[55] It is the responsibility of individual insurance companies to determine what weight they give the Fire Underwriters' grading when determining insurance rates.

DPG Rating

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

Table 3: DPG Rating Details

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 often treated as essentially equivalent, though that varies with the underwriter.
3B	Semi-protected	This is usually the rating level at which significant cost savings on insurance are enjoyed. This is usually the highest rating available in areas which are not hydrant-protected.
3A 3B(S) 3B(L) [56]	Protected	Progressively greater savings on insurance. Fully protected status typically means a savings of 50-60+% on insurance costs.
2	Protected	
1	Protected	

In general, the Fire Underwriters estimate that a community which achieves fully protected status can enjoy savings on insurance of up to 60% (or more) versus communities which are rated as "unprotected".[57]

There are some fundamental location and distance requirements for a property to receive a protected or semi-protected rating under the DPG classification:

[55] See a list of other factors on the Fire Underwriters Survey website, "How the PFPC affects individual insurance policies" at http://www.fireunderwriters.ca/public-fire-protection-classification.html, accessed 20 January 2020.

[56] A rating of 3B(s) is a Fire Underwriters' 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. Similarly, a 3B(L) rating indicates the department has been accredited for "large diameter hose lay," which doubles the reach from a fire hydrant from 300 metres to 600 metres.

[57] This estimate is based on statements in various reviews conducted by the Fire Underwriters we have reviewed for other clients over the past decade or more.

- residents must live within eight kilometres by road of a fire hall (i.e., the measurement is based on distance travelled on the existing road network, not in a straight line from the fire hall); and
- for hydrant protected areas, the property must be within 300 metres of a fire hydrant (otherwise, the residence is classed based on the community's "non-hydrant protected" rating).[58]

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

The DPG rating is calculated at the same time as the PFPC rating, using essentially the same assessment process. However, the factors explicitly considered in applying the rating are managed slightly differently. For this assessment, based on descriptions in other reports we have reviewed, the Fire Underwriters consider the following:

- Organization (authorized by bylaw, supported by taxation);
- Membership (career versus volunteer or composite);
- Training system – NFPA 1001 FF-I or better for personnel, proper training records, and established training program;
- Required apparatus meeting NFPA 1901 or ULC-S515 standards (and within the maximum age requirements set by Fire Underwriters);
- Necessary additional equipment for operational requirements;
- Appropriate fire hall (location, suitability for purpose, condition);
- Alarm notification system (proper emergency communications); and
- Water supply meeting FUS requirements (and/or ability to transport water as required).

How well each of these factors is met determines the DPG rating.

PFPC Rating

The PFPC rating, which is determined at the same time as the DPG rating, is based on the four fundamental assessment categories (Fire Department, Water Supply, Fire Prevention and Communications) identified above. This rating has a 10-point scale, where 1 is the best and 10 is "unprotected." 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 (a maximum of five kilometres) and distance from a fire hydrant (a maximum of 150

[58] This distance can be extended to 600 metres if a department is certified by the Fire Underwriters as capable of "large diameter hose-lay". See: Fire Underwriters, *Accreditation of Alternate Water Supplies for Public Fire Protection* (2012), at: https://fireunderwriters.ca/Resources/FUS-AlternativeWaterSupplyAccreditationProtocol2012.pdf accessed on 23 August 2020.

metres). These requirements can result in “split ratings” for a fire protection area. The Fire Underwriters website used to include a description of split ratings as follows: [59]

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

It should be noted that newer Fire Underwriters’ reviews, in addition to introducing more detailed ratings and some new concepts,[60] are increasingly focused on fire prevention, fire education and the importance of bylaws which support good fire protection practices (e.g., sprinklering requirements, a well-considered fire inspection program, building and electrical code enforcement, etc.).

8.2 Superior Tanker Shuttle Service Accreditation

The Department achieved Superior Tanker Shuttle Service (“STSS”) accreditation in 2017 for each of its fire halls.[61] This accreditation means that dwellings covered by the DPG rating are treated as though they have a recognized water supply – so, effectively moving from a DPG 3B rating to the equivalent of DPG 3A. In general, this improved rating means the dwelling is treated as “fully protected” (see Table 3, above), and typically results in lower insurance costs for the homeowner. It also means that the Department has a demonstrated ability to maintain the necessary fire flows to protect properties that lack hydrants.

STSS accreditation requires the Department to demonstrate its ability to shuttle water and maintain a specified minimum fire flow for a set period of time. The Fire Underwriters generally require that this accreditation be renewed every five years, and so it is likely that a recertification will be required at some point in 2022.

8.3 Summary

The principal benefit of having an effective, well-equipped and well-trained fire department is that it will materially improve the life safety of residents in its fire protection area. Indeed, we would stress that the life-safety issues are the principal ones to focus on, when communities

[59] The Fire Underwriters’ website has been reorganized and this particular language is no longer found, although the concept is still applied.

[60] 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).

[61] Letter, M. King (Fire Underwriters) to Sooke Fire Rescue Department, 17 October 2017.

examine the benefits and weigh the costs of investing in their fire services. From a financial perspective, however, it also is important to understand that a fire department which is well rated by the Fire Underwriters will likely result in materially reduced insurance costs for both residential and commercial property owners.

The Department has received an excellent score for residential properties – indeed, it is not common for volunteer or paid-on-call departments to achieve better than a DPG 3A rating. Similarly, it has achieved a very creditable score for commercial and multi-family properties. As a result of these scores residents and businesses are saving significantly on their insurance costs.

9. Financial Review

Development of a fire department's budget requires a clear understanding of the cost drivers that influence both revenues and operating and capital expenditures. The budget plan should also reflect a department's organizational and strategic objectives, and include administration, operating, maintenance and asset replacement costs.

9.1 District Operating Budget

The table below provides the total 2021 operating budgets for all District departments by cost centre.[62]

Table 4: District of Sooke: 2021 Operating Budget by Cost Centre

Cost Centre	2021 Operating Budget
Operations	$2,285,864.00
Community Safety (Fire, ESS and Policing)	$4,404,782.00
Planning and Development	$1,341,675.00
Financial Services	$1,322,340.00
Corporate Services	$797,363.00
Council, CAO, Administration and Communication	$1,506,234.00
Total 2021 Operating Budget	**$11,658,258.00**
Note: Budget amounts do not include amortization or allocation adjustments	

Community Safety, which includes the Department, ESS and policing, totals $4.4 million or 37.8% of the overall operating expenses for the District. The operating budget allocation by all District cost centres is shown in the figure below.

[62] The departmental operating expenses used in this analysis do not include allocations or amortization adjustments.

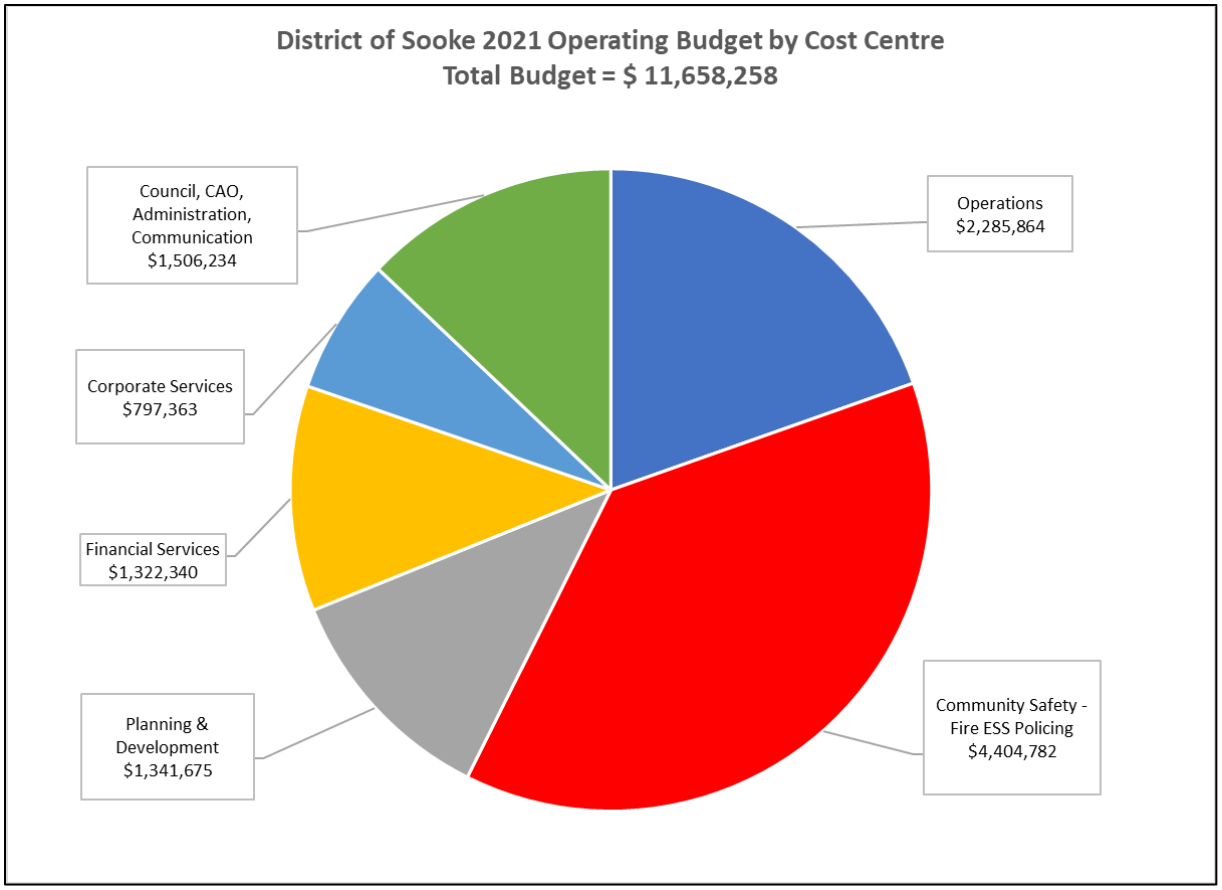

Figure 2: District of Sooke 2021 Operating Budget by Cost Centre

The breakdown of the 2021 Community Safety operating budget is shown in Table 5 below:

Table 5: Community Safety: 2021 Operating Budget by Department

Department	Budget
Fire Department & ESS	$2,324,451
Policing	$2,080,331
Total 2021 Community Safety Operating Budget	**$4,404,782**
Note: Budget amounts do not include amortization or allocation adjustments	

9.2 Department Operating Budget

The following table highlights the 2019, 2020 and 2021 operating budget allocation by cost centre for the Department. Highlights include:

- Revenue – The Department has the authority to charge fees for services and permits under Bylaw No. 752 *Fees and Charges Bylaw, 2019*. The Department did not report any revenue in the three-year period (2019 – 2021).

- The Emergency Program ESS expenses include supplies, radio operations, vehicle maintenance, communications, professional development, training, annual exercise, and outside services. There are no labour costs allocated to this cost centre.
- Debt servicing charges are allocated to the cost of borrowing to fund major capital purchases.
- Other costs (Contracts, Medical Supplies) for 2021 including:
    - East Sooke Fire Service contract - $45,000;
    - Master Fire Plan - $20,000; and
    - Medical supplies - $8,000

Table 6: Department & ESS Operating Budgets 2019 - 2021

Cost Centre	2019	2020	2021
Administration	$1,001,049	$1,098,750	$1,185,777
Debt Servicing	$173,575	$305,437	$292,279
Emergency Program ESS	$26,600	$26,000	$26,000
Facilities	$58,200	$58,200	$52,000
Fire Prevention	$3,000	$3,000	$3,000
Other (Contracts, Medical Supplies)	$53,000	$53,500	$78,500
Protective Clothing	$66,500	$68,000	$68,000
Telecommunications	$68,500	$73,500	$73,500
Training	$61,555	$66,355	$66,355
Vehicles & Equipment	$182,136	$187,500	$171,200
Volunteer Firefighters	$224,302	$251,816	$307,840
Total	**$1,918,417**	**$2,192,058**	**$2,324,451**

The table below sets out the remuneration and benefit costs for the Department in 2021. Labour costs constitute approximately 63% of the Department's total budget which is in line with other composite fire departments that utilize a mix of career and paid-on-call members. It is noted that the Overtime line item was added to the budget in 2021.

Table 7: Department Labour Costs, 2021

Cost Centre / Labour Subcategory	Subcategory Budget	Cost Centre Labour Total
Administration		*$1,169,276*
Benefits	$243,491	
Overtime	$25,000	
Salaries	$900,785	
Volunteer Firefighters		*$304,840*
Behavioural Health & Wellness CISM	$10,000	
Duty Officer Remuneration	$37,240	
EAP Benefits	$1,512	
Medical Testing	$3,100	
Relief worker benefits	$0	
Relief worker wages/remuneration	$61,000	
Volunteer Association Payment	$37,779	
Volunteer Duty Crew Remuneration	$53,881	
Volunteer Performance Incentive (POC)	$99,878	
WCB Benefits	$450	
	Total	**$1,474,116**

9.3 Department Capital Budget

In terms of process, the Department maintains an asset management plan for new and replacement capital purchases. The plan includes two separate categories of capital items: Critical Equipment Replacement and Vehicle Replacement. Capital submissions for critical equipment must be a minimum of $5,000 and may include both replacement and new requests. Vehicle replacement schedules for large fire apparatus are governed by NFPA standards and the Fire Underwriters' requirements and are typically 20 years for engines and 25 years for aerial ladders. As discussed in section 8, above, extending the life of apparatus beyond 20 years, and having it still included as ratable by the Fire Underwriters, requires that an extension be granted and the apparatus undergo annual testing.

The capital plan is submitted annually to Council for consideration and adoption in the current budget and the Five-Year Financial Plan.

The table below illustrates the Department's 5-Year Capital Replacement Plan for equipment, apparatus and vehicles. The information was provided by the Department and shows a breakdown of the capital funding request including critical equipment replacement items and two vehicle replacements: Car 1 in 2021 and Engine 1 (204) in 2023. The funding for all items has been included in the District's 5-Year Capital Plan.

Table 8: 5-Year Capital Replacement Plan 2021 - 2025

	Replacement Year					
Item	2021	2022	2023	2024	2025	Total
Critical Equipment Replacement						
Fire Hose	$10,000	$5,000	$10,000	$10,000	$10,000	$45,000
AED (2)	$5,200					$5,200
PPV Fan Replacement		$5,000	$5,000			$10,000
Tri-pod - Confined Space				$15,000		$15,000
Future Considerations					$30,000	$30,000
Partech Heavy Duty Struts	$10,000					$10,000
Paratech Hydra Struts Base		$20,000				$20,000
Paratech Gold Struts				$20,000		$20,000
Thermal Imaging Camera		$8,000	$8,000			$16,000
2.5" Nozzles (8)	$8,000					$8,000
Forestry Hose	$6,000	$6,000				$12,000
Portable Scene Lights (2)	$2,500					$2,500
Tough Books (2) E2, B1	$13,000					$13,000
Car 1 Box, Lights, Delivery	$15,500					$15,500
Hydrant Relay Valve E1/E2	$5,000					$5,000
Hose Repair Machine		$8,000				$8,000
Critical Equipment Total	**$75,200**	**$52,000**	**$23,000**	**$45,000**	**$40,000**	**$235,200**
Vehicle Replacement						
Replace Car 1, Unit 211	$65,000					$65,000
Replace Engine, Unit 204			$900,000			$900,000
All Capital -Total	**$140,200**	**$52,000**	**$923,000**	**$45,000**	**$40,000**	**$1,200,200**

During the financial analysis, it was noted that the District's 5-year Capital Plan 2021-2025 differs from the Department's plan in the total amounts allocated. The amounts below are included in the 5-Year Capital Plan adopted by Council.

Table 9: District Capital Plan 2021-2025

Item	2021	2022	2023	2024	2025	Total
Critical Equip Replacement	$75,200	$53,500	$47,500	$47,500	$47,500	$271,000
Replace Car 1	$65,000					$65,000
Replace Engine 204			$900,000			$900,000
Total	**$140,200**	**$53,500**	**$947,500**	**$47,500**	**$47,500**	**$1,236,000**

10. Organizational Structure and Staffing

The Department's organization chart is shown below in Figure 3 and includes administration, training, operations, fire prevention, and the emergency program-related ESS, SERG, and FIST groups.[63] The staffing resources and roles are shown in Table 10 below.

Table 10: Staffing Resources and Roles

Type	Position	Responsibility
Full-Time	Fire Chief	Director of Community Safety Deputy, Emergency Program Coordinator
	Deputy Chief	Emergency Program Coordinator Fire Prevention and Education
	Captains (2)	Station 1 Captain: Training Officer Station 1 Captain: Fleet Management and Purchasing
	Admin Assistant	Fire & Emergency Planning Assistant
	Firefighters (4)	Firefighter
Paid on Call	EVT Mechanic	Vehicle Maintenance
	Lieutenant (3)	A, B and D Platoon Lieutenant
	Firefighters (26)	Firefighter
Volunteers	ESS Volunteers (24)	Emergency Social Services: NEPP Program, CEC Program, Pet Team, Training Coordinator, Social Media Resource Acquisition
	SERG Volunteers (5)	Sooke Emergency Radio Group
	FIST Volunteers (4)	Fire Incident Support Team

[63] Emergency Social Services - "ESS"; Sooke Emergency Radio Group - "SERG"; Fire Incident Support Team - "FIST".

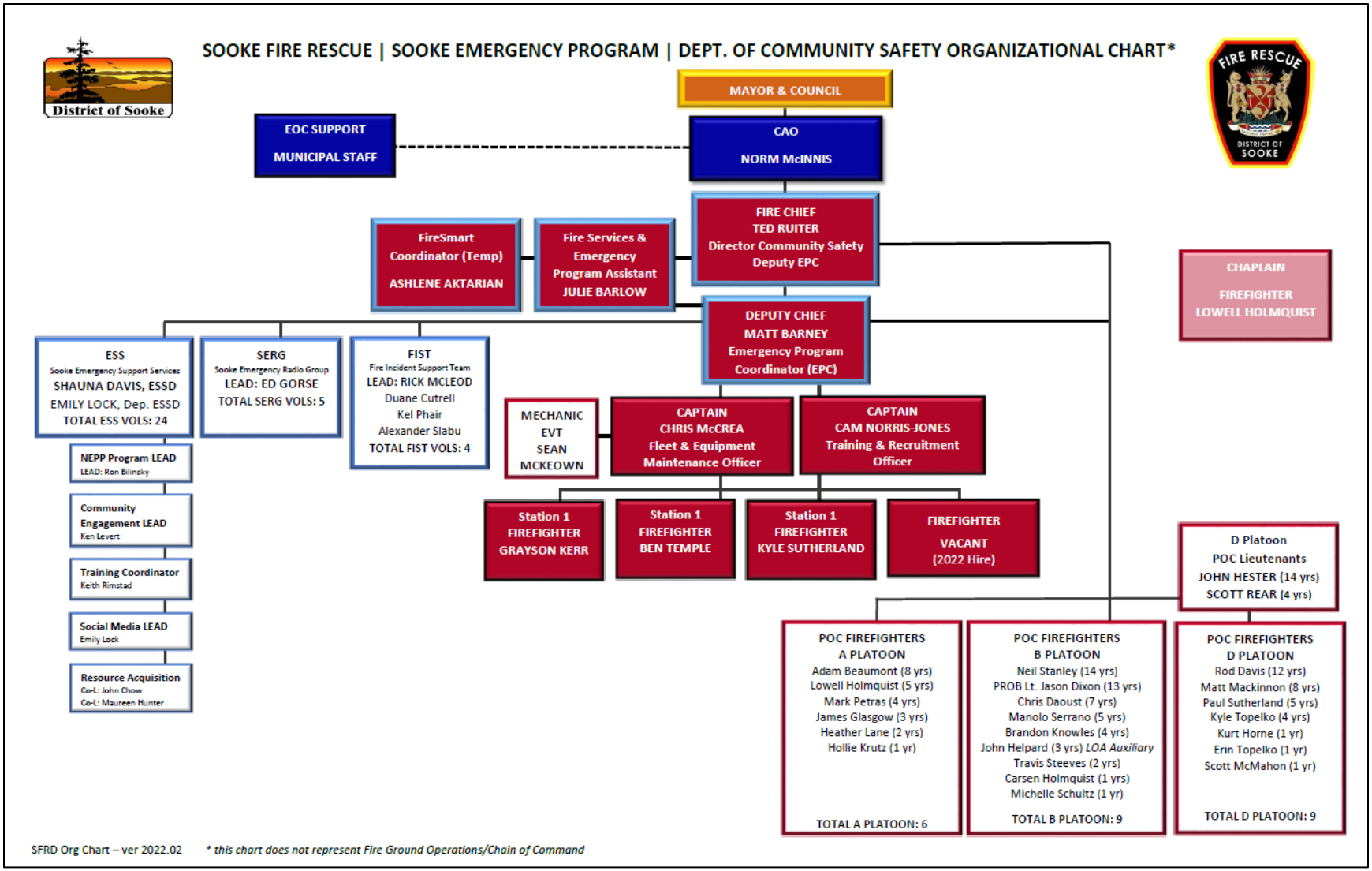

Figure 3: Organizational Chart

11. Fire Prevention

The Fire Prevention Division consists of the Deputy Fire Chief and an Assistant Fire Chief position which is currently vacant. The responsibilities for each position are described in OG 1.04.01[64] and are further governed by the *Fire Services Act* provisions related to appointments of LAFCs. The Division has no dedicated administrative staff and relies upon the Department's administrative assistant to provide support for fire inspections and all other fire prevention activities.

The Assistant Fire Chief position is identified as being responsible for scheduling inspections, public education, pre-plans, LAFC duties, investigations and completion of related records. With the Assistant Fire Chief position vacant, the above duties all default to the Deputy Fire Chief.

The OGs identify inspection priorities along with general guidance and parameters for company inspections. The Department's operational and establishment Bylaw No. 292 (discussed in section 4.1 above), prescribes inspection frequencies based on building occupancy class, using intervals of six, 12 and 24 months. Other than occupancy class, the basis on which the inspection frequency has been set was not specified in the bylaw.

Overall, the Department requires additional guidelines related to the delivery of fire inspections, fire investigations and public education services.

11.1 Inspections

The statutory requirement that a municipal council must provide for a regular system of inspection of hotels and public buildings in the municipality[65] is addressed through Bylaw No. 292 and the OGs. Inspections are primarily undertaken by the Deputy Fire Chief supported by company inspections. There are provisions for enforcement action under both the bylaw and the *Fire Services Act*.

Building plan reviews are undertaken by the Deputy Fire Chief and reviews of development plans, building design proposals and development proposals are undertaken by the Fire Chief.

Under OG 1.02.01, "Fire Prevention Priorities," the Department identifies its general obligation to conduct fire inspections "as laid out in District of Sooke Bylaw 292", with all "commercial, Industrial and Multi Unit Residential" to be inspected annually, "if possible". Under this OG, inspection priority was set as follows:

- first to "places where people sleep (apartment blocks, motels, etc.) and where people gather (community halls, schools, pubs, restaurants, etc.)" and high hazard occupancies (F1 industrial occupancies);

[64] OG 1.04.01 Responsibilities and Duties of Fire Chief, Deputy Chief and Asst. Chief

[65] *Fire Services Act* sections 26(1) and 36.

- then to retail and commercial occupancies; and
- finally, to F2 and F3 industrial occupancies and low risk home-based businesses.

While more complex inspections are carried out by the Fire Prevention officers, company inspections are an essential component of the Department's inspection program. Company inspections are conducted by career and POC staff as assigned by the Deputy Fire Chief. Company Officers plan and carry out their assigned inspections, and ensure the completion of the required reports and submission of all records to the administrative assistant for records management purposes. The Company Officer is responsible for any follow up inspections; any enforcement action related to an inspection is managed in conjunction with the Deputy Fire Chief.

OG 1.02.02 requires that all officers must complete the "Level 1 Company Inspection (or equivalent) program," [66] but it is not clear what this training program encompasses or how it tracks, for example, NFPA standards. Firefighters participating in the company inspection program are also required to receive training on a regular basis, along with refresher training when available. The nature of the refresher and ongoing training, however, is not specified.

The Department is currently behind schedule in completion of its inspection requirements, which is attributable in part to COVID-19 restrictions. However, with the Assistant Fire Chief position vacant, responsibility primarily falls to the Deputy Fire Chief to manage all fire prevention requirements in addition to other work assignments. This negatively impacts the Department's ability to complete inspections in a timely way.

Prior to 2017, inspections were conducted using a paper-based system. Subsequently, the process was changed to a combined system of paper copy originals, supplemented by electronic copies stored within the Department's FDM records management system. Due to the limited user licence access to FDM, the Department is currently in the process of moving to the District's "Tempest" system for electronic records management. The initial inspection process remains paper-based however it is anticipated that over time these will all transfer to the electronic record management system.

The inspection forms are a series of customized checklist style reports with each modified based upon the type of occupancy. There is also a modified inspection form for use in company inspections that differs from the one used by the Deputy Fire Chief. Consideration should be given to standardizing that form and moving all inspection forms to the new electronic record management system to reduce the administrative work (and potential for transcription errors) associated with data entry from paper forms.

Currently there are 539 properties that have been identified as requiring regular fire inspections. Within that total, however, there are a significant number of home-based businesses (92) with no client access where physical inspections are not conducted and are monitored using an email submission of an occupant completed checklist. As the mandated inspection frequency

[66] OG 1.02.02 Company Inspections

within the overall program varies from six to 24 months, it generates an average annual requirement for 322 inspections.

Inspection completed over the last five years are shown in Table 11 below.

Table 11: Inspections Completed; ~322 inspections required annually

Year	# of Inspections Completed	% of Required Inspections
2016	163	51%
2017	83	26%
2018	67	21%
2019	155	48%
2020	124	39%
Average	**118**	**37%**

Although Bylaw No. 292 and the OGs establish an inspection system intended to meet *Fire Service Act* requirements, the management of the program is currently driven by a need to catch up on the backlog of inspections, which in turn is impacted by a lack of resources needed to complete the required work. This backlog has affected the prioritization of inspections and a system needs to be developed to ensure follow ups are conducted when identified.

11.2 Pre-Incident Planning

The Assistant Fire Chief position includes primary responsibility for the creation and management of pre-plans. With this position vacant, these duties have defaulted to the Deputy Fire Chief. There is a requirement in the operational guidelines for crews conducting company inspections to review any existing pre-plan for properties to ensure it is current and to provide any changes in information to the Fire Prevention Division for updates as appropriate. There are no dedicated resources assigned to the creation or maintenance of pre-plans. The current approach, which involves using career staff when they are serving on modified duty status, has had limited success in addressing the preplan needs.

The Department has compiled some information for pre-plans on a limited number of properties, however the content consists primarily of a PDF document containing information taken from fire safety plans. In most cases the document lacks some of the following essential pre-plan elements:

- quick access plan;
- floor plan (including all floors of multi-story buildings)
- site plan showing access and hydrant/water supplies;

- photos; and
- details regarding hazardous material storage.

The Department is currently investigating the APX Smart Capture program to provide a template for the creation of pre-plans. This program has the capability to capture all the necessary types of information for an effective pre-plan and initial indications are that it is a user-friendly application.

There is no OG to identify and manage preplanning as a program. The current OGs only provide direction to review pre-plans during the inspection process but there is no system to ensure follow up action is taken where updates requirements are identified. The existing pre-plans are not readily accessible to responding crews. Some preliminary work has been done to create a draft information gathering template and the Department is now transitioning to an electronic format for preplans.

11.3 Investigations

The priorities for fire prevention listed in OG 1.02.01 include fire investigation, "as required by the Fire Service/Safety Act, [and] District of Sooke Fire Bylaw". Bylaw No. 292, however, does not specifically address fire investigations. Sections 9(1) and 9(2) of the *Fire Services Act* require the LAFC to investigate fires and submit reports to the Office of the Fire Commissioner. The Fire Chief and Deputy Fire Chief are both LAFCs and responsibility for fire investigations is included in the duties of both the Deputy Fire Chief and the Assistant Fire Chief as described in OG 1.04.01.

There is no specific OG governing fire investigations and the minimum training standard for fire investigators is not addressed. As noted in the Regulatory Matters section above, when the new *Fire Safety Act* is proclaimed in force, new requirements will come into effect with regards to the training of fire investigators and the conduct and reporting of fire investigations.

11.4 Public Education

There is no formal public education program established however the Department does undertake a number of activities to further public education and fire safety in general. These include:

- annual fire prevention event - a joint event with other fire departments in the region attended by grade 5 students in the participating areas;
- public fire hall tours - conducted on request and averaging 30 per year (pre-COVID);
- Fire Smart assessments - upon request of a resident the Department conducts on-site consultations;
- third party events - the Department will set up informational displays upon request; and
- social media - use of a Facebook page for the Department and Emergency Program.

There are limited funds budgeted to support public education and staff identified this area as a gap requiring a formal program and improved communication. There is no staff resource dedicated to the management or delivery of public education and all support is provided as a secondary duty, which in turn impacts other core workloads. One consideration based on the past several years would be the implementation of an expanded FireSmart program[67] including a dedicated coordinator and application for one-time grant funding.

11.5 Recommendations

Recommendation: Create a new OG to outline the fire prevention program, its processes and responsibilities related to fire inspections and fire investigations.

Recommendation: Given the current backlog of fire inspections, reconsider the need for inspections of home-based businesses that don't meet the current criteria for a property requiring inspection. Also, consider reassessing fire inspection frequencies using a risk-based approach as outlined in the upcoming Fire Safety Act.

Recommendation: Create a new OG that defines the requirement for pre-plans and the processes to create, review and update pre-plans.

Recommendation: Identify and acquire a standardized pre-plan template.

Recommendation: Identify a training standard for fire inspectors and fire investigators.

Recommendation: Given the current responsibilities of the Deputy Fire Chief, consider filling the Assistant Fire Chief position with a primary responsibility for all aspects of the fire prevention program.

Recommendation: Consider creating a formal Public Education program to further enhance community fire safety.

Recommendation: Consider developing a FireSmart program for Sooke to reduce fire risk at the forest interface.

[67] https://www2.gov.bc.ca/gov/content/safety/wildfire-status/prevention/firesmart.

12. Emergency Program

The Emergency Program is established under Bylaw No. 137, which is reviewed in section 4.4, above. There is an Emergency Response and Business Continuity plan that provides an overall structure, but the plan is missing Section 5 “Public Information” and the nine listed appendices. The Business Continuity section provides an overview of business continuity; however, the actual plan needs to be attached as an appendix for reference.

There is a well-structured EOC operations manual that contains the necessary plans and resources to establish an EOC and staff it with trained personnel to manage a range of emergency events.

The Hazard, Risk and Vulnerability Analysis (“HRVA”) was last completed in 2013 with an update in 2016. However, the HRVA document does not reflect any changes since 2013 and should be updated to show the dates of amendment or reviews. Given the current pace of development within the community, consideration should be given to a refresh of the HRVA.

12.1 Structure

The Deputy Fire Chief is assigned the role as the Emergency Program Coordinator and is responsible for the Emergency Program and serving as the Director of the EOC when activated. Senior municipal staff are expected to fill EOC roles, including Section Chief positions. There is an Emergency Support Services (“ESS”) team that is equipped to provide support when required.

12.2 Training and Exercises

Staff training has been a challenge in recent years, due in part to COVID-19 impacts since 2020 as well as staff turnover. There are no records of municipal staff EOC training, and it is estimated that approximately 30% of staff have the EOC Essentials (introductory) course, with the Fire Chief, Deputy Fire Chief and administrative assistant having some additional training. This lack of training has also negatively impacted the ability of the District to conduct regular exercises of its Emergency Plan. It should be noted that proper training of personnel and the conduct of periodic exercises of the Emergency Plan are required under the *Emergency Management Regulation*.

Responsibility for the Emergency Program is currently one of many roles filled by the Deputy Fire Chief and there are challenges in being able to find staff time to dedicate to the needs of the program overall. It is recommended that the addition of a dedicated staff resource to support the program be considered.

12.3 Facilities and Equipment

The Emergency Program identifies the primary and secondary locations for an EOC. The EOC’s primary location is the Hall 1 training room, which has the required equipment and space along with the necessary IT infrastructure to support EOC operations. The secondary

location is in the Council Chambers which is located within the same building complex as the Hall 1. It relies on equipment and infrastructure (e.g., power) used in the primary location and has the necessary IT infrastructure in place. The secondary location has the necessary functional supports in place along with a planned layout.

There is a back-up generator supporting the building housing the two EOC locations. There is also a second portable generator mounted on a trailer that is intended to provide back up power for the ESS reception centre which would be located at the Sooke Community Hall, however the condition of this generator is currently considered unreliable by staff.

12.4 Planning

Most of the necessary Emergency Program planning work has been done and evacuation routes have been identified and mapped in advance. Some additional documents such as the Emergency Guideline provide a good quick response resource. The District has also completed business continuity planning with concise checklist style guides for each of the critical functions of local government. This plan is currently a separate document that does need to be incorporated into the main Emergency Plan.

It was also noted that the EOC manual was reviewed with some minor updates in 2016, however the table of amendments does not reflect this action and needs to be updated. Appendices 3 and 6 contain specific names and phone numbers, some of which are outdated, and others which require validation.

12.5 Area-Wide Disaster Mutual Aid Agreement

Sooke is a party to the Disaster Mutual Aid Agreement (the "DMAA"), along with 12 other CRD municipalities. The CRD itself is not a party to this agreement, which was entered into with effect from 21 November 2000.[68] The DMAA has no set term.

The DMAA provides broad authority for a party to request assistance from one or more of the other parties. The request for assistance must be made by the "Mayor" of the Requesting Municipality to the "Mayor" of another party or parties. No express provision is made for a delegate to make or receive this request.

The salary costs and employment expenses related to the assistance provided by a "Providing Municipality" (other than costs of gathering, movement and deployment of the assistance), as well as the market value of supplies, provisions or other property consumed or not returnable, are required to be paid by the Requesting Municipality (see ss. 6, 7, 8 and 9), including equipment repair and operational costs.

A Providing Municipality may not charge any rent for equipment or apparatus made available to a Requesting Municipality under the DMAA (s. 8). Under section 10, control of the assistance

[68] The DMAA was entered into before there was any obligation under the *Emergency Program Act* for regional districts to undertake emergency planning. As such, the CRD was not a party to it, and has never been added.

provided is assumed by the Requesting Municipality. Lists of available resources were to be created and maintained (s. 12). Liability limitation and indemnity language was included in sections 13 and 14.

Following the DMAA's inception, the CRD has become an active participant in emergency planning, both for the unincorporated areas for which it is directly responsible and to help coordinate emergency planning and responses across the Regional District as a whole. Indeed, there is now an array of regional structures in place with varying degrees of responsibility for regional emergency planning, including:

- the "Regional Emergency Coordinators Advisory Commission," established pursuant to CRD Bylaw No. 3566: *"Regional Emergency Coordinators Advisory Commission Bylaw No. 1, 2008*;"
- the "Emergency Program Advisory Commission" established pursuant to CRD Bylaw No. 3531: *Regional Service for Emergency Program Support Advisory Commission Bylaw No. 1, 2008*;
- the "Regional Service for Emergency Program Support: this service was established pursuant to Bylaw No. 3530: *Regional Service for Emergency Program Support Establishment Bylaw No. 1, 2008*;
- the Regional Emergency Management Partnership created through a non-binding Memorandum of Understanding entered into in March 2016 between the Province and the CRD (in which various other stakeholders, including each CRD municipality, participates); and
- a non-binding Memorandum of Understanding – Regional Concept of Operations for Emergency Response in the Capital Region, which appears to have been entered into in 2020, though it is not clear that all of the relevant or possible parties to the agreement have executed it.

There has been some work undertaken to update and replace the DMAA, with a new area-wide mutual aid agreement that includes the CRD as a party along with each of the municipalities. This new aid agreement has been under consideration since 2011, and drafts were circulated in 2018 and 2020. While the idea of updating the DMAA is useful, we would recommend that the District and the Department review carefully the proposed replacement. The versions that we have seen could stand significant review and should be assessed by the District's internal or external legal counsel before it is adopted.

12.6 Recommendations

Recommendation: Identify key EOC positions and the corresponding municipal staff positions that could fill the roles. Create a register of staff to track EOC training.

Recommendation: Provide EOC training to municipal staff identified for EOC deployment.

Recommendation: Conduct regular EOC exercises.

Recommendation: Consideration be given to adding 0.5 FTE administrative support position for the Emergency Program.

Recommendation: Identify a back-up EOC location, in a post-disaster building if possible, and create an activation plan.

Recommendation: Review Appendix 3 of the EOC Manual to ensure the profile information is current. Update the contact names and numbers listed.

Recommendation: Review Appendix 6 of the EOC Manual and update the emergency contact list information and validate the organizational chart.

Recommendation: Undertake a detailed review and analysis of the proposed area-wide mutual aid agreement that is intended to replace the existing DMAA.

13. Operational Guidelines

The use of standard OGs is a best practice for fire departments. Under the WCA and OH&S Regulation, WorkSafe BC requires employers to provide employees with written directions for principal tasks. Under Part 31 of the OH&S Regulations, there are requirements that fire departments have specific operational guidelines dealing with certain matters identified in that Part. The updating and maintenance of OGs is, in our experience, a challenge for all fire departments.

The Department's OGs were reviewed to confirm the existence of the requisite elements and that the subject titles are consistent with the content of each guideline. An analysis of the accuracy of the content of each OG, however, was outside the scope of the review. As part of the detailed analysis of the Department's operations and administration, any identified issues or gaps related to the existing OGs or suggestions for improvements to the content of specific OGs, are addressed in the corresponding sections of this report.

The Department's OGs are divided into nine sections. A summary of the sections and the corresponding number of OGs in each are shown in in the table below.

Table 12: Operating Guidelines Structure

Section		Number of OGs
1	Administration	21
2	Fire Prevention	1
3	Inspections	2
4	Personnel	13
5	Training	3
6	Systems	2
7	Safety	29
8	Maintenance	1
9	Operations	44
	Total	116

In general, the OGs are well structured and clearly explained. The administration of the OGs is well organized and they are currently reviewed every two years with the most recent update having been done in 2019. All guidelines have been signed as approved and there is a provision for the archiving of changes and previous versions for future reference.

The OG manual provides a mandate and mission statement, context around ethical practices and adherence to Occupational Health and Safety, along with the process for the creation and maintenance of the OGs. The OGs that were provided for review are in a format used by many fire departments with the content covered under four separate descriptors: Purpose, Scope, Policy/Procedure and References. Within the header of each guideline there are fields for the OG title, section name and number, original issue date, re-issuance date. The footer contains a signature block with its corresponding date.

In the interests of space and flow, more detailed feedback for individual OGs has been provided in a separate document with a general overview provided below.

- For multi-page OGs, the use of page numbers and the inclusion of the header information on each page would improve the clarity.
- Consideration be given to numbering the paragraphs within each OG. This will make it easier to reference specific parts when necessary.
- It is recommended that all OGs include the purpose, scope, policy/procedure and reference sections to provide clarity and ensure a consistent appearance. The OG instructions section would also need to be adjusted to reflect this approach.
- The numbering system that is being used appears to distinguish the OGs into three general categories, however there is no general title provided to identify these groupings.
- Where OGs lack content for the Scope or Purpose sections, in a number of cases, we observed that the relevant information was often at least partly included in the Policy/Procedures section.
- The content of some OGs replicates information that is already covered in another OG. That content could be replaced by making reference to the appropriate OG, which would streamline the length of some OGs. For example: references to the use of “Temporary Use Clothing Kit” (T.U.C.K.).
- There are OGs which mention of the use of specific forms, but there is no copy of the form included as an attachment, nor is the form listed by name in the reference section. It is suggested that, where there is a requirement for a particular form, then it should be either provided or at least clearly identified (in the reference section) in a way that enables a user to readily locate it.

13.1 Recommendations

Recommendation: A review of the OGs should be undertaken to address the issues identified in this section and other areas of the report.

Recommendation: The Department should review the detailed OG feedback (provided in a separate document) and make the identified amendments to individual OGs.

14. Fire Halls, Apparatus and Equipment

14.1 Hall 1: 2225 Otter Point Road

Built in 1995, Hall 1 is attached to City Hall and is located next to a residential area and a park. The hall has three truck bays, offices, kitchen facilities, meeting rooms and an area for equipment maintenance and storage. The adjacent parking area is also used for maintenance and training exercises. A secondary building is currently being used as a workout room.

Figure 4: SFRD Hall 1

A concern raised by the members was the need for an expanded training area that includes a pumping pit and a proper training tower.

14.2 Hall 2: 2011 Goodridge Road, Saseenos

Hall 2 is located near Highway 14 and has two truck bays, an office, kitchen facility and meeting area. The bays are equipped with a diesel exhaust extraction system, but there is a limited amount of storage for turnout gear, equipment and supplies.

Figure 5: SFRD Hall 2

14.3 Apparatus

The Department's fleet is listed in Table 13 with the hall location, year purchased, make, pumping capacity in IGPM[69] and water tank size of the primary units. The total combined pumping capacity of the Department's fleet is 6,320 IGPM and the available portable water supply is 4,750 gallons. The engines and ladder truck are all under 20 years of age and within the age limit set by the Fire Underwriters for credit.

Figure 6: SFRD Apparatus

The Brush Truck (Brush 1) is the most used vehicle in the fleet.

Table 13: SFRD Apparatus

# and Hall	Unit/type	Year	Make	IGPM	Tank Size
Hall 1					
202	Tender 1	2018	International	420	1,750
203	Ladder 1	2006	Rosenbauer 109' Ladder	1,750	400
205	Engine 3	2003	Freightliner	1,250	1,000
206	Brush 1	2002	WFR/Freightliner CAFS	400	450
213	Utility 1	2018	Ford F350		
215	Command Unit	2019	Ford F250 w/ canopy		
216	Engine 1	2020	Spartan Metro Star	1,250	750
217	Car 1 (Fire Chief/Insp/EVT)	2020	Ford Utility		
	ATV	-	-		
	Trailer	-	-		
Hall 2					
204	Engine 2	2006	E-One Typhoon CAFS	1,250	400
210	Squad 2	2019	Ford F350 w/ canopy		

Some members expressed concern that:

- the vehicles and apparatus are fine but there are not enough members to fill the seats;

[69] Imperial Gallons Per Minute ("IGPM")

- the size and type of apparatus should be reviewed with a goal to plan for replacement units that have a shorter wheelbase and tighter turning radius to be able to access narrow or steep driveways;
- the Department should consider a Type 3 engine;
- incident rehab is currently performed in a trailer but there is a need to provide food and fluids; and
- a plan is needed for a long-term incident command unit to support operations in a major emergency, where the incident extends beyond a 12- to 24-hour period. It was noted that it is possible to request support from Saanich or Langford to address these circumstances, but support may not be available during a region-wide emergency.

14.4 Equipment

Most of the required equipment repair and maintenance is performed by a Captain who is currently assigned to Hall 1, as well the Department has a heavy duty mechanic that works one day per week to do the majority of the work. The Department has several different types of equipment that require maintenance including a rehab trailer, portable generators, portable fans, auto-extrication tools, chainsaws and power tools. In some cases, specialized service is contracted to qualified service companies.

An issue was identified related to the lack of detailed service reports for some of the older equipment. Some of the equipment and apparatus maintenance was previously performed by Victoria and records were often provided in a summarized form. As such, they lack the detail required by WorkSafe BC. Records management is still being improved and is being used to help support requests submitted in the asset management plan.

15. Training and Qualifications

The fire service has made significant changes over the past decade, particularly in the area of regulations and standards related to the management and administration of the service (such as the increased requirement for record keeping). Notwithstanding those improvements, the key to ensuring effective emergency ground operations, and the safety of firefighters and members of the public, continues to be effective and comprehensive training. Each operational member of a fire department must have the appropriate level and types of training to fulfil the roles and tasks he or she will be assigned at an emergency incident. To enable the Department to manage its obligations effectively, it is vital to ensure that all firefighters are trained to the appropriate level for the operations that they undertake. Appropriate training will improve firefighter safety and effectiveness and limit liability concerns for both the Department and the District.

The need for training needs to be examined in light of the risks faced by fire service personnel. The nature of modern construction techniques has amplified the risks faced by firefighters and the public. Lightweight construction components and contents made of composites, synthetics and other unusual fuels, cause fires to get hotter faster and with less predictability, creating a much more volatile fire environment than that of the past. Although firefighters are now better equipped, fires today pose a greater risk than those faced in the 1970s and 1980s.

Aggressive interior operations such as fire attacks and primary searches require firefighters to enter a hazardous environment, dramatically increasing the potential for adverse fire events such as flashover, smoke explosion, or backdraft, along with exposure to a variety of other perils, thereby posing the most significant risk to firefighters involved in fire ground operations. A line of duty death or serious injury is a risk that all fire departments must seek to avoid. In the event of a serious injury or line of duty death[70], the impact on the individuals involved, their families and the department can be severe and long lasting. There is also a significant potential for liability for the Department, its officers, and the District.

As a result, the fire service is increasingly focused on issues that affect firefighter safety, including the need to effectively manage and control interior operations, as departments seek to mitigate the risks to which firefighters are exposed. One of the primary ways to improve firefighter safety is to increase the level of comprehensive emergency incident management training – the knowledge and various skills required to perform a variety of supervisory functions safely and effectively at emergency incidents.

Many fire departments also provide other emergency response services, in addition to fire suppression, such as FMR, vehicle extrication and rescue, high and low angle rescue, confined space rescue, hazardous materials responses, and other specialty services. Each of these service specialities, however, requires proper training for the firefighters involved, and appropriate incident scene management training for the officers. The time and costs involved in

[70] One example is the 2004 death of firefighter Chad Schapansky in Clearwater, B.C. which is discussed in detail in section 15.13.

achieving both the initial qualifications required to deliver the service and then manage the on-going maintenance training necessary to keep the skills current, can prove challenging.

The issue of appropriate training levels also needs to be considered in the context of WorkSafe BC requirements and the obligation of employers to ensure that their workers are properly trained for their duties and supervised while performing them. An employer that fails to train and supervise its employees properly is in breach of the *Workers Compensation Act* (B.C.). The goal, therefore, should always be to maximize training for all firefighters, and to limit their fire ground operations to those tasks for which they have been properly trained. To put it another way: firefighters should NEVER be permitted to exceed their training.

15.1 Applicable Standards

Under the *Fire Services Act*, the Fire Commissioner is responsible for issuing training standards for "fire services personnel" in the province.[71] The Playbook, a major new set of standards was issued in 2014, which was then updated and revised in a second edition in May 2015. A third edition of such standards, which will be broader in scope, updated to the current NFPA requirements, and renamed, is being actively developed at the time of the writing of this report and expected to be published sometime in 2022.

The current version of the Playbook contemplates that a fire department may deliver one of three possible levels of service, and establishes the principal minimum training required to qualify for each level of service:

> **Exterior Operations** – includes fire fighting activities restricted to the control and/or extinguishment of fire from an external position to the building or object; 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, single family dwellings and vehicles, except where specific hazard assessments and planning have been undertaken in respect of more complex risks.
>
> **Full-Service Operations** – a full-service department is equipped, staffed, and trained to provide a full spectrum of fire services by firefighters and fire officers that are trained to the competencies outlined in the NFPA 1001 FF-II and relevant NFPA 1021 Fire Officer standards; and that such activities are based on response protocols which include appropriate staffing levels, and number and type of apparatus on scene.

[71] *Fire Services Act*, s. 3(3)(b). This power and obligation is continued in the new *Fire Safety Act*. The term fire services personnel is defined in the *Fire Services Act*: it covers essentially all fire departments undertaking structure firefighting, but excludes fire suppression operations undertaken by Wildfire Management Branch under the *Wildfire Act* (B.C.).

The Playbook establishes an explicit requirement for the "Authority Having Jurisdiction" (the "AHJ") over a fire department to expressly set the level of service that is expected to be provided by its fire department. The training, organization, staffing, equipment, and apparatus required to support the chosen level of service will all be impacted by that determination.

The Playbook is not yet a complete system: it does not cover all emergency scene functions and responsibilities. Indeed, one of the main goals of the third edition is to broaden the scope and coverage of the standards. One challenge, therefore, is the question of what standards apply to matters that are not covered by the Playbook. Although there are several indications that the NFPA standards are expected to apply to other functions (which was what was required by the previous Minister's Order on training),[72] ambiguity now exists as to the standards applicable for a wide range of firefighter training.

Given the requirements of the *Workers Compensation Act* (B.C.), 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 as an "industry best practice" to guide all aspects of the Department's operations. 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 there is a serious accident or line of duty death which relates back to training issues (as occurred in the Clearwater case[73]), that local government will be faced with the unenviable task of justifying the approach that it has taken in circumstances where there is clear evidence of a problem.

As such, when formally implementing the service level standard for the Department, it is recommended that the District also identify that the NFPA standards form the basis of all training for the operational functions undertaken and emergency services provided by the Department. It is then the responsibility of the incident commander to ensure that firefighters are tasked only with those functions (and situations) for which they have been trained.

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 they are teaching. That means that they must have already met the requirements for the competency they are teaching, which is achieved when they have been suitably evaluated so as to demonstrate they meet the requirements of the given standard.

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[72] The second edition of the Playbook 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. The previous Minister's Order on training - MO-368 (December 2002) – incorporated by reference all NFPA standards.

[73] 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. The Coroner's findings are discussed in greater detail in section 15.13.

Another critical requirement in the Playbook is that fire departments maintain accurate and current individualized records of each member's training and qualifications, which show compliance with the minimum and other applicable training standards:[74]

> Assessments and evaluations of Competencies can be carried out internally by the AHJ so long as the evaluation instruments follow the criteria of this Playbook (and other applicable NFPA Standards) and that detailed records of firefighter training and evaluation are maintained. […]
>
> It is the responsibility of all fire departments/AHJs to be able to accurately identify record, edit, and report out on a complete list of training records for each individual firefighter including specific training subjects covered at each training session. All training records must be kept in accordance with the requirements of the *Workers Compensation Act* (B.C.) and related regulations, and any other regulatory requirements.

This section of the report will examine the Department's training processes in the context of its operational requirements, declared service level and the associated standards, along with a review of the training facilities, the current levels of qualifications, and the Department's training and evaluation processes, and the training records.

The Consultants attended site visits/meetings with the Fire Chief and two Company Officers (Captains), one of which is responsible for the Training Officer role, on August 11th and 12th, 2021. During these meetings, various aspects of the Department were reviewed, including the Department's training and training records as an opportunity to learn more about the current state of training and operational readiness. As a part of these site visits, the Consultants toured the community to better appreciate the nature of the Department's operational environment and reviewed the training area and facilities.

This section of the report references various NFPA training and related standards. A list of those standards can be found in Appendix 2.

15.2 Service Levels and Applicable Standards

The AHJ in relation to the Department is the District, and the service level that has been authorized by Council is "Full-Service Operations". A full-service department is required to be equipped, staffed, and trained to provide the full spectrum of fire services by its firefighters and fire officers. Firefighters must meet the competencies set out in NFPA 1001 FF-II and fire officers must meet the relevant NFPA 1021 Fire Officer I standards.

Full-service departments are also required to have and to use written OGs that describe advanced training in fire ground operations activities.

[74] Playbook, pp. 4 and 6. The Playbook's requirements are drawn from and reflect the records keeping requirements established under the *Workers Compensation Act* and regulations.

The services currently provided by the Department include:

Basic Firefighter/Fire Suppression:

- Firefighter
- Team Leader/Company Officer
- Emergency Vehicle Driver/Operator
- Rapid Intervention Team

Specialty Firefighter Skills:

- Emergency Medical Service
- Hazardous Materials Responses
- Technical Rescue Responses:
    - Passenger Vehicle Rescue/Extrication
    - High/Low Angle Rope Rescue
    - Confined Space Rescue
    - Water Rescue
- Wildland/Urban Interface

A full-service department is required to be organized such that its suppression activities are based on response protocols that include appropriate staffing levels, as well as number and type of apparatus on scene, for the services that they provide.

For a volunteer and/or composite fire department, the NFPA 1720 standard states that the minimum number of firefighters required to respond to any single-family structure fire (low-medium hazard) in an urban area is fifteen personnel within 9 minutes 90% of the time, and in a suburban area is ten personnel within 10 minutes 80% of the time. There are no specific staffing recommendations for other incident types. As such, consideration needs to be given to the recommended staffing levels for other incident types as set out in NFPA 1710. The staffing levels for incidents other than a residential structure fire are as follows:[75]

[75] These requirements are drawn from the 2020 version of NFPA 1710, ss. 5.2.4.1 (Single-Family Dwelling Initial Full Alarm Assignment Capability); s. 5.2.4.2 (Open-Air Strip Shopping Center Initial Full Alarm Assignment Capability); s. 5.2.4.3 (Apartment Initial Full Alarm Assignment Capability); and s. 5.2.4.4 (High-Rise Initial Full Alarm Assignment Capability).

- 3-storey apartment building: minimum staffing of 21 – 22;
- Open-air strip shopping mall: minimum staffing of 25 – 26; and
- High-rise (more than 6 storeys): minimum staffing of 35 – 36.

Based on the information provided, it appears that the average daytime call attendance of the volunteer/POC members Monday through Friday is low, with most additional members arriving well after the ten-minute time frame. In addition, given the requirements of NFPA 1500, and those of WorkSafe BC regarding entry into fire-involved structures,[76] a Rapid Intervention Team ("RIT") must be established within 10 minutes of the first team's entry, or before a second team can make entry. As such, to conduct interior operations for more than 10 minutes, a RIT will be required, and therefore, all personnel engaged in interior operations must also meet the competencies required for RIT as identified in the Interior Operations section of the Playbook.[77]

The Department's current staffing model has two full-time exempt officers on day-shift hours Monday to Friday. The operational staffing is two career Company Officers (Captains), one of whom is responsible for training, and four firefighters who work on a two day-shift rotation of four days on and four days off. As such, there is one Captain and two firefighters on each shift, with a minimum staffing of two personnel seven days a week. The Fire Prevention and Emergency Management duties are managed by the Deputy Chief.

In addition to the career Captains and firefighters, the Department has a volunteer/POC contingent of approximately 29 members[78]. The Department's dependence on POC members can result in inconsistent response turnouts, with fewer members during weekday hours when most members are at their place of regular employment. As a result of these turnout challenges, the two career members on shift may take one apparatus each when responding to an alarm. Overall, the potential time it takes to assemble 15 or 16 personnel at a residential structure fire is likely to be greater than 10 minutes. As such, the Department likely will not be able to meet the NFPA 1720 response objectives and will have to manage any entry into a fire-involved structure with great care and ensure proper adherence to the WorkSafe BC requirements.

The Department has mutual aid agreements with Otter Point, Metchosin, and East Sooke. The travel distances for these departments, which also depend on paid-on-call and volunteer members, means that their response times are unlikely to improve the Department's ability to meet the NFPA 1710 objectives.

Responses by the career Captains and firefighters during the evenings and on their days-off, are optional. Most members will attend for the major incidents, but are less likely to turn out for short-term situations. Where they do attend, they are remunerated at straight time as per the

[76] OH&S Regulation, s. 31.23.

[77] The training requirements for member of a RIT include those of an Interior Operations firefighter, plus various competencies in *NFPA 1407 - Standard for Training Fire Service Rapid Intervention Crews*.

[78] As of April 2022, the number of volunteers includes 26 firefighters and 3 lieutenants.

letter of understanding for the 2016 – 2019 term. Relying on such a call-back approach for off-duty career members is becoming increasingly challenging.

A recent working structure fire alarm in the community was dispatched at approximately 0530 hours (not during Monday-Friday working hours) and resulted in a response by 13 members from the Department – five career and eight POC members – with an additional mutual aid response of nine personnel from Otter Point and Metchosin.

Both the Fire Chief and Deputy Chief recognize the challenges the Department faces in organizing a timely response to incidents. As such, they would like to see the addition of at least one, and preferably two more career firefighters on each shift. This would increase the initial career response from two or three to four or five members, which would then enable them to engage in interior operations earlier, should there be a need to do so. As the District grows, a 24-hour/day staffing model is recommended.

The development of several new multi-storey structures within the community has amplified these concerns. Fires in larger structures require more personnel, more apparatus and increased training, to deal with effectively and safely.

The applicable standards and associated requirements for training and development of Department members should include the following:

- The Playbook (which encompasses a range of NFPA standards in addition to those set out below);
- NFPA 1001 – Firefighter Level I & II;
- NFPA 1002 – Emergency Vehicle Driver and Operator;
- NFPA 1021 – Fire Officer Level I, II, III or IV (as per Department's job descriptions);
- NFPA 1521 – Incident Safety Officer;
- NFPA 1041 – Fire Service Instructor I or II (as per Department's job descriptions); and
- EMS – FMR Level III.

The Department currently meets these requirements for firefighter and fire officer training with both Company Officers (Captains) qualified at the NFPA 1021 Fire Officer II (FO-II) level, and the majority of the firefighters qualified at the NFPA 1001 level. In addition, it also meets industry standards and BC Emergency Health Services ("BCEHS") requirements for Emergency Medical Services ("EMS") training.

The NFPA standards for various specialty services typically contemplate three levels of competency: awareness, operations, and technician. The higher levels are more costly to attain and maintain, as they require more training. For specialty teams and responses to other hazards, the following training levels are suggested, given the Department's operational environment:

- NFPA 1072 – Hazardous Materials: operations and operations mission specific level (Note: Technician level responses are provided by the CRD hazmat team);
- NFPA 1006 – Technical Rescue:
    - High-Angle Rope Rescue – Operations level;
    - Confined Space Rescue – Operations level;
    - Passenger Vehicle Rescue/Extrication – Operations level;
    - Water Rescue – Awareness level.
- Wildland/Urban Interface – WSPP-WFF1 and WSPP-115.[79]

15.3 Department Training

As noted above, the Department's current staffing model is as follows:

- two full-time exempt officers working day-shift hours Monday to Friday. These officers have primarily administrative and fire prevention, rather than operational, roles;
- one career Captain and two career firefighters on day shift (with a minimum staffing level of two); and
- approximately 29 paid-on-call members.

The Captain/Training Officer ("TO") is responsible for the planning and overall management of the Department's training portfolios. The TO is also responsible for determining the Department's training needs, developing training programs, planning, organizing, and directing training activities, and evaluating for continuity of training throughout the membership. In addition to scheduling training, the TO is also responsible for conducting some aspects of training and for maintaining the Department's training records.

The required training levels are primarily determined by the Departments' operational services mandate and response requirements of the community. The nature of these services will determine the level of qualification to be achieved, the associated training programs required, and the manner in which these competencies will need to be maintained. The Department is intending to operate at the "Full Service" operations level. As such, its OGs need to address the full range of activities its members may be expected to undertake at a structure fire, including establishing incident command, size up, action plan, entry and RIT. These OGs also should tie into training requirements. Upon a review of the Department's OGs, not all operational requirements and the associated training processes are fully addressed. As noted earlier in

[79] WSPP-WFF1 – Basic Wildland Firefighter (formerly S100 & S185), WSPP-115 – Interface Structural Protection for Structural FFs (formerly S215).

Section 13, Operational Guidelines, a review of the OGs should be undertaken to address the issues identified in this section as they pertain to operations and safety.

The Department has mutual aid agreements with three neighbouring departments, and all four utilize a similar accountability system. Some joint training is conducted with Metchosin and Otter Point, primarily with new recruit training; however, there is little or no collaborative/joint training currently taking place with ESVFD. Joint training with mutual aid partners is critical to ensure effective and safe emergency scene operations. The Department and its aid partners should invest the time and resources required to undertake regular joint training.

15.4 Training Facilities

The majority of required training for the Department's firefighters and fire officers is conducted at Hall 1. The outdoor training ground is a reasonable size, with a tower and a few props, suitable for basic training skills, but the facilities/props are inadequate for multi-unit/multi-storey exercises.

As such, the Department often utilizes the training grounds and associated facilities/props at the Otter Point (which has live fire capability) and Metchosin sites for the larger, more complex training exercises.

The training classroom is suitable for small groups, up to five or six members, but not suitable for larger class sizes, and lacks adequate storage for training props and equipment. Most skills sessions are conducted in the apparatus bays.

15.5 Current Levels of Qualification

The Department's required qualifications for each of the following roles, and the qualifications of the incumbents, are set out in the table below. We would note that the Department has worked hard to ensure that its members meet the training standards required of them. For a composite department, it has done very well in this area, with about three-quarters of its paid-on-call members meeting the full NFPA 1001 FFII requirements.

Position(s)	Required Qualifications	Current Qualifications of Incumbent(s)
Chief Officers		
Fire Chief	• NFPA 1021 FO-III • NFPA 1031 Fire Inspector II • NFPA 1033 Fire Investigations • NFPA 1035 Public Educator I • NFPA 1041 FSI-II • ICS-400	Meets these requirements.

Position(s)	Required Qualifications	Current Qualifications of Incumbent(s)
Deputy Chief/TO	• NFPA 1021 FO-III • NFPA 1031 Fire Inspector II • NFPA 1033 Fire Investigations • NFPA 1035 Public Educator I • NFPA 1041 FSI-II • ICS-300.	Meets these requirements.
Assistant Chief (position currently vacant)		
Company Officers		
Captains (2)	• NFPA 1021 FO-I • ICS-200 • NFPA 1041 FSI-I	All meet these requirements.
Other Officers		
Fire Prevention Officer (position being considered)		
Firefighters		
Exterior Ops FF Interior Ops FF Full-Service (career) FF	• Exterior Operations level FF as per the Playbook • Interior Operations level FF as per the Playbook • NFPA 1001 FF-II	All meets this requirement. All meet this requirement. 19 of the 25 POC Firefighters have met this requirement.

15.6 Training and Evaluation Processes

The Department seeks to meet the proficiency requirements of the applicable NFPA standards for substantially all operational skills. Where possible, these qualifications are achieved through weekly delivery of the initial training, as well as the maintenance of those competencies and skills through the subsequent weekly training night processes. The issue of maintenance training is considered in greater detail, below.

The Consultants did not witness actual operational training of Department members. As such, the following observations and comments are based on the various interviews and discussions

held with the Fire Chief and the TO as an indicator of the level of operational readiness of the Department to carry out its mandated emergency response activities.

The current TO has been responsible for the Department's training for the past several years, with much of the previous 18 months adversely affected by the restrictions accompanying the pandemic. As a result, the annual training plan or schedule has been somewhat more fluid recently, while trying to anticipate the various training needs the TO is now developing a monthly training schedule that is broken down into two-week blocks. As such, most training requirements are identified in the monthly and weekly calendar put out to the members. Maintaining and/or increasing the level of proficiency in any area of service delivery is challenging, as the Department relies principally on its weekly training nights.

Given the day-to-day workload, site visits, inspections, and various alarm responses, it is very difficult to create and adhere to a "hard" set schedule with only two members typically on duty at any one time (day shifts). Both initial and maintenance training for the career members is primarily conducted on-duty. As such, it is challenging to achieve consistency given the variations in staffing/attendance from day to day. Given the nature of the career members shift rotation and hours worked, as per the collective agreement, these members are also required to attend the three hour weekly training sessions conducted for the POC members on Thursday evenings. Other than the required number of weekly evening training sessions, the career members are not required to attend those sessions that are scheduled on off-hours (nights and weekends).

Prior to the pandemic restrictions, the volunteer/POC attendance was good, with approximately 75% present for most sessions. However, due to the COVID-19 restrictions, it has been difficult to get the members together for in-person weekly training, and now seems that many members have found other things to occupy their personal time. As a result, attendance at the weekly training sessions has dropped off.

The TO would like to keep the training consistent across the two shifts focusing on what they need to do, how they should do it, and develop, provide and conduct the training to achieve it. The TO recognizes this will require an analysis of where the members are currently in terms of their operational knowledge and skills, from which it will be possible to develop the training programs to address any gaps. With the increased growth and development in the community, which includes several mid-rise, multi-storey structures, along with the associated risks and nuances, the TO feels the Department is behind in terms of its capacity and capability to manage these potentially more complex incidents. As such, the TO would like to develop more in-house instructors, and/or bring in external third-party trainers to assist the Department in developing more comprehensive programs to enhance their knowledge and skills in these areas.

For all of its training, whether provided in-house or by external third parties, the Department needs to ensure that members are formally evaluated against the relevant standard, and the results of such evaluation consistently recorded on an individual basis.

As noted above, the determination of required training levels is based on a department's service mandate and response requirements. The current training levels for the services provided by the Department are set out below.[80]

15.7 Firefighter/Fire Suppression Training

Basic Fire Suppression:

As a Full-Service Operations level department, currently all new members are trained through an in-house recruit program conducted in partnership with the Metchosin Fire Department to meet the NFPA 1001 Firefighter II certification, which includes hazardous materials at the operations level, as assessed/certified by the Justice Institute of BC ("JIBC"). The program starts with the FR-III requirements, and then graduates the recruits through the Exterior and Interior levels, on to completion of the full NFPA 1001 requirements. This process often requires about 16 months to complete. Included in this fundamental fire suppression training and qualification are the various aspects of live fire training and the associated fire ground skills.

The Department's career members all meet the NFPA 1001 FFII standard, and about three-quarters of the paid-on-call members also have been trained to these requirements. As such, the Department meets the basic training requirements for a Full-Service Operations department as established by the Playbook.

Emergency Vehicle Driver/Operator:

The Department's driver and operator training for its apparatus is provided by the JIBC and the program is designed to meet the NFPA 1002 standard. The program also includes the required assessment processes for NFPA 1002 certification.

Rapid Intervention Team:

This training is provided in-house; however, the program does not include a formal assessment/evaluation process involving written exams and/or practical skills evaluations. While the training appears to cover the various job performance requirements of NFPA 1407, proper evaluations are required to fully meet that standard's requirements and the corresponding Playbook requirements.

Team Leader Role:

The majority of the competencies in the Playbook for the Team Leader role are derived from the NFPA 1021 FO-I requirements. As such, both Chief Officers and the two Captains, as well as a all of the career firefighters and some POC members, meet these requirements, as they are qualified at the FO-I level or higher. It should also be noted that the Playbook indicates that a fully qualified firefighter in a Full-Service department is

[80] For most specialty services (e.g., Hazmat), the NFPA standards have three qualification levels: "Awareness," "Operations," and "Technician" (in ascending order or level of required training).

essentially deemed to meet the Team Leader requirements.[81] However, care should be taken when assigning Team Leader roles to such firefighters, to ensure that they have the necessary training and qualifications for the supervision they reasonably are expected to provide.

Based on the exception created by the Playbook, the Department technically has sufficient Team Leaders to meet Playbook requirements. Nevertheless, we would recommend additional FO-I training of paid-on-call members, to ensure there is a larger contingent of members who are fully qualified and capable of taking on Team Leader roles, without relying on the exception noted above.

15.8 Specialty Firefighter Skills Training

In addition to the basic fire suppression/firefighter skills, the Department also provides its members with a number of required and/or specialty operational competencies or skills:

Emergency Medical Services:

All members are trained to the FMR-III level, with three of these members having the higher EMR qualification. The FMR training is provided in-house and evaluated through the provincial Emergency Medical Assistants Licensing Board. The Fire Chief is considering increasing the medical service qualifications for all members to the EMR level.

Hazardous Materials Response:

All members are initially trained to the Operations level which, as noted above, is achieved through their NFPA 1001 Firefighter II certification. In addition, two of these members were trained to the Technician level through the JIBC as part of the CRD hazmat team, along with two members trained to the Operations Mission Specific level in regard to the ammonia hazard at the District's recreation centre.

Technical Rescue Responses:

Vehicle Rescue/Extrication:

The TO indicates that most members are trained and operate to the Operations level through an in-house training program and evaluation process, with a few members at the Technical/heavy rescue level. The intent is to meet the requirements of the NFPA 1006 standard; however, there are no formal assessments or records to qualify these members at these levels.

High/Low Angle Rope Rescue:

Seven members are trained to the Technician level, while the others are at the Operations level for both high-angle and low-angle rescue skills. The intent is to meet most of the requirements of the NFPA 1006 standard. As noted in section 7, above, the

[81] See: Playbook, p. 5/20.

District has recently concluded a specialized rescue agreement with Saanich covering tower crane incidents.

Confined Space Rescue:

At this time, most members are trained to the Operations level, with one member at the Technician level.

Water Rescue:

Most members have received some basic Awareness training for shore-based rescue only, and do not have any formal qualification in this area of response.

Wildland/Urban Interface:

The OFC and BC Wildfire Service have established Wildland Firefighter Level 1 (WSPP-WFF1) and Structure Protection Workshop (WSPP-115) as required training for structural fire fighters to operate at wildland fire incidents or as structure protection crews. All members in the Department have completed WSPP-WFF1, the majority have completed WSPP-115, and all career staff are in-progress on the NFPA 1051 Wildland Fire Officer program. Some senior members in the department have received advanced wildland training from the OFC as qualified Strike Team Leaders, Task Force Leaders and Engine Bosses.

15.9 Company Officer Training

The Department has set NFPA 1021 as a minimum standard for their Company Officers, with completion of FO-I required for the rank of Captain. Company Officer and Firefighter training should also be supplemented by live fire training, as well as an appropriate level of emergency incident management ("EIM") training to ensure the Department has sufficient qualified individuals who can fill the role of incident commander.

The Department's approach to its officer training is commendable and is designed to ensure that officers have the skills and qualifications to fulfil the role of Captain. Both Captains meet the required Playbook qualifications having completed FO-II, and currently all career staff have completed IFSAC/ProBoard FO-I, with most at FO-II. Seven POC members completed FO-I.

The fire officer development program consists primarily of the JIBC Fire Officer courses for NFPA 1021, FO-I, II, III, and IV, much of which is now conducted through on-line processes rather than classroom instruction (a change in approach that pre-dates the restrictions arising from the pandemic). During the interviews, some concern was expressed that too many training processes are now conducted "on-line", which members feel is not as effective a training tool as classroom-based and hands-on training sessions.

Another consideration in the development of the Captains as Company Officers is the need to ensure that the Incident Safety Officer ("ISO") role can be filled. At this time, it is not certain if all Chief Officers, and Company Officers have the ISO qualification. Given the importance of this

role at an incident of any significance, the Department should consider adding an ISO course/qualification to those already in place for the role of Company Officer.

15.10 Chief Officer Training

The Fire Chief position provides operational and administrative leadership to the Department, as well as to the community in relation to all aspects of Building Code and bylaw enforcement functions. The Chief is required to be qualified at the NFPA 1021 FO-III level or higher, as well as have completed NFPA 1031 Fire Inspector II and NFPA 1033 Fire Investigations, NFPA 1035 Public Educator I, and NFPA 1041 FSI-II, along with ICS-400.

The Deputy Chief position also provides operational and administrative leadership to the Department, as well as to the community in terms of building code and bylaw enforcement functions. This position also leads the Sooke Emergency Program as well as being the Emergency Program Coordinator for the District. The Deputy Chief is required to be qualified at the NFPA 1021 FO-III level or higher, as well as have completed NFPA 1031 Fire Inspector II and NFPA 1033 Fire Investigations, NFPA 1035 Public Educator I, and NFPA 1041 FSI-II, along with ICS-300.

The Chief Officers are expected to be “operational” in that they may choose to take on the Command Function (IC) at any given emergency incident. As such, the Fire Chief is required to be qualified at the FO-IV level, as well as for ICS-400, and the Deputy Chief is required to be qualified at the FO-III level, as well as for ICS-300. However, the documentation provided does not clearly indicate whether members of the Department have qualified for the ISO role.

15.11 Fire Prevention Officer

This position is currently vacant.

15.12 Maintenance Training

Historically, the training and development of new skills, and the maintenance of these competencies, has been a priority for the Department; however, with added skills requirements this becomes increasingly difficult with only one training night (three hours) per week. Generally, initial and maintenance training is accomplished during these weekly training sessions, along with additional training on other evenings and weekends. As noted earlier, these sessions historically were well attended, with about 75% of members present, although with the COVID-19 restrictions of the past 18 months, and the lack of appropriate local training grounds, props, and equipment, attendance has declined.

The TO notes that maintenance training for most of the specialty services provided has not been achieved to the level he considers adequate. In his view, the existing skill sets need to be better maintained and, in some areas, improved. In addition, given the development of several new multi-storey residential occupancies, the TO would like to see the Company Officer EIM training revisited, with officers being requalified more frequently.

In this regard, the Playbook expressly requires on-going skills maintenance, noting that:[82]

> "the maintenance training for such competencies is the responsibility of the AHJ and it is expected that this will be accomplished through ongoing skills maintenance training and education. This ongoing training must be duly recorded for each firefighter and officer."

Most composite and paid-on-call departments are finding it challenging to complete all of the necessary maintenance training for both fundamental and specialty skills. Getting members to commit the required additional time to this training is increasingly difficult.

Given the importance of ensuring specialty team training is properly maintained, we would suggest the training division budget be reviewed to determine if sufficient time and funds have been allocated to address the costs associated with additional training on more than one evening, or possibly on weekends.

If there is insufficient funding to support the required initial and on-going maintenance training for various specialty services, it may not be possible to maintain such services at the existing proficiency levels. It may be that the cost (in terms of both time and money) of maintaining these services at higher levels of qualification are considered too great: however, such cost-benefit and related risk assessments will have to be made based on the District's mandate for service established for the Department as well as its operational environment.

We would recommend that the Department undertake an internal review of all operational services currently provided to determine:

- if the service needs to be provided by the Department, and if so, to what level;
- the required training necessary to provide that service at the determined level;
- the actual funding needed to provide that service including equipment, initial training, and on-going maintenance training; and
- whether there is sufficient time available for the training (both initial and maintenance training) required to provide the service when considered along with all other departmental training requirements.

Once responses to these issues have been determined, the Department should seek appropriate approval and funding from Council to better manage all of its required training functions and processes.

[82] Playbook, section 7, "Maintenance Training" at p. 7.

15.12.1 Firefighter/Fire Suppression Maintenance Training

The Department's approach to maintenance training for fundamental fire suppression skills and qualifications is set out below, along with any challenges that were identified during the review. All maintenance training needs to include formal evaluation processes, with each member's results being maintained in an individualized record.

Basic Fire Suppression:

Over the last year, more effort has been made by the Department to ensure the consistent maintenance of the firefighter skills under the NFPA 1001 and related standards. This effort is still developing and will be materially enhanced with new training schedules, coupled with a decrease in COVID-19 restrictions. In the future, the addition of some new training facilities/grounds and props, and possibly additional career suppression members, would better enable this fundamental maintenance training to be fulfilled.

Live Fire:

In the past, the Department conducted its live fire maintenance training at the Otter Point training ground facilities. Typically, these training exercises were conducted by the Department's in-house instructors and site technicians, and occasionally involved some joint training with other departments and their instructors. As such, these training sessions were most often not formally assessed or evaluated; however, the TO is now creating in-house evaluation forms to better assess member's performance. The TO would like to start incorporating more use of outside third-party instructors/evaluators in future training sessions, and to conduct these exercises annually, but this is difficult due to the required time commitment. Given the potential risks associated with live fire training, the Department needs to ensure that all instructors and evaluators are properly qualified to deliver such training.

Emergency Vehicle Driver/Operator:

As noted above, the Department's apparatus driver-operators training is provided through the JIBC program to meet the NFPA 1002 standard. The program also includes the required assessment processes for NFPA 1002 certification. As with a number of other skills, due to time constraints, these skills are not often revisited or re-evaluated.

Team Leader and Incident Command Roles:

The majority of the competencies for the Team Leader role are derived from the NFPA 1021 – FO-I requirements, and, for a Full-Service department, all NFPA 1001 – FF-II qualified members are considered as meeting the Team Leader requirements, but only for specific tactical assignments for which they have been deemed qualified. These Playbook requirements, however, are the minimum, and do not fully cover all incident command functions. Both Chief Officers and Captains, and career staff as well as seven POC members, meet these requirements as they are qualified at the FO-I level or higher. Refresher training takes places regularly for IC through live fire scenarios,

simulations, and tabletops. However multi story commercial and residential training needs to be increased.

Rapid Intervention Team:

As noted earlier, this training is provided in-house; however, the program does not include a formal assessment/evaluation process, and there has been little formal refresher training conducted to ensure members meet the skills requirements of the NFPA 1407 standard, which also requires an annual performance evaluation of the RIT operations and RIT members.

15.12.2 Specialty Services Maintenance Training

In terms of specialty skills maintenance training, the general feedback from our interview process was that the competencies and skills in a number of these areas have not been as well maintained as need be over the past few years.

Emergency Medical Service:

The members undertake periodic in-house refresher/maintenance training and re-certification as required by the provincial Emergency Medical Assistants Licensing Board.

Hazardous Materials Response:

All members are initially trained to the Operations level as part of their NFPA 1001 certification, along with two members trained to the Operations Mission Specific level, and two members trained to the Technician level as part of the CRD Hazmat response team. Those firefighters who are members of the CRD Hazmat team receive periodic maintenance training; however, the remainder of the Department members at the Operations level do not receive regular maintenance or refresher training. NFPA 1072, which governs, among other things, hazardous materials responses, requires personnel to remain current with the general knowledge, skills and the job performance requirements ("JPRs") for each level or position of qualification under that standard.[83]

Technical Rescue Responses:

For the following technical rescue skills, note that s. 1.2.6 of NFPA 1006 requires technical rescue personnel to remain current with the general knowledge, skills, and JPRs addressed for each level or position of qualification. Technical rescue personnel are required to remain current with technical rescue practices and applicable standards and to demonstrate competency on an annual basis.

[83] *NFPA 1072: Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications*, s. 2.1.6.

Vehicle Rescue/Extrication:

Most members are qualified at the Operations level, with the maintenance of these skills addressed through evening training sessions involving limited evaluation processes and documentation. Given the lack of formal assessments or records, and the decrease in training opportunities over the past 18 months, it is unlikely the members' skills have been maintained at the Operations level.

High/Low Angle Rope Rescue:

Several members are trained to the Technician level, while others are at the Operations level for both high-angle and low-angle rescue skills and regular maintenance training is provided for qualified members.

Confined Space Rescue:

Most members are trained to the Operations level, with one member at the Technician level; however, the TO indicates there has been little or no maintenance of these skills.

Water Rescue:

As noted above, most members have not received any formal water rescue qualification beyond awareness, and the TO indicates there has been little or no maintenance of these skills.

Wildland/Urban Interface:

Most members have received the basic S100 training, with a few having the S215 training[84]; however, there is no indication of these skills being maintained.

The Department has recognized recently that maintenance of specialty skills is a significant challenge, and that many such skills have not been adequately maintained. Although members have achieved the necessary initial qualifications in various specialty rescue areas, such as vehicle rescue or confined space rescue, their skills and qualifications require regular refreshing. Part of the problem is the interrelated issues of time and cost as noted above.

15.12.3 Company Officer Maintenance Training

Maintenance training for the Captains has not generally been conducted in the past. Day-to-day administrative and supervisory skills, along with advanced EIM training and/or refresher seminars, have not been conducted but are now being considered. As such, one area where further attention should be placed is on the regular maintenance training of the EIM skills and

[84] The Training Captain notes all members are trained to WSPP-WFF1, 80% with WSPP-115, all career staff in-progress on NFPA 1051 Wildland Fire Officer program. Additional OFC training for TFL/STL and Engine Boss. WUI maintenance training conducted seasonally. Sooke Fire WUI program far more advanced than comparable departments. Experience gained by several members participating in provincial states of emergency deployments.

knowledge to ensure the Company Officers (Captains) are properly prepared for the potential range of emergency incidents they may encounter.

The Department should review the EIM skills of each of its officers and, if necessary, implement regular “refresher” or maintenance training sessions as required.

Given there is currently no formal program/process for the maintenance/review of the various Company Officers’ role and skills, this maintenance training requirement, along with that of several others, are now being considered in the monthly training schedule, which identifies the areas that are to be reviewed during that time frame.

15.13 Training Records

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, the members and officers were deemed to be insufficiently trained for the activities undertaken, as the department lacked the necessary training records to support their qualifications.

The full Coroner’s Report in the Clearwater case can be found at Appendix 3.[85] The report quoted the Worker’s Compensation Board findings including the following regarding training and fireground operations:[86]

- The Fire Chief and the Deputy Fire Chief have no accredited incident command training.
- There is no "entry" policy for interior attacks on burning structures (occupied or not).
- There is no training officer designated for this fire department.
- There was no written Operating Guidelines (OG) for this fire department at the time of the accident.
- There were no training records provided by the employer for any accredited training done by the initial interior attack crew, RIT members or the fire management team (Fire Chief and deputy Fire Chief) on site.
- Documentation received from the Clearwater volunteer fire chief indicated that Mr. Schapansky had limited exposure to interior fighting of burning structures.
- Documentation received from the Clearwater volunteer fire chief and interviews indicate that Mr. Schapansky's [sic] had no previous exposure to interior fighting of burning structures.

[85] *BC Coroner’s Judgement of Inquiry into the Death of Chad Schapansky*, 2 February 2006 (the “Coroner’s Report”).

[86] Coroner’s Report, pp. 4,5.

- There are no clear standards set out by the local authority (Clearwater Improvement District), to outline the level to which they expect their fire fighters to action fires. Quote: “Our Fire Fighters are expected to fight fires that are within their training limitations."

- The (WCB) officer had not found a clear accredited standard that the Justice Institute or Office of the Fire Commissioner has required for volunteer fire fighters provincially. "The Clearwater volunteer fire fighters were training themselves to what they believed was an acceptable standard to fight fires they were required to fight. As being like most small fire halls, the Clearwater volunteer fire fighters had little exposure to fighting structural fires. This led the fire management team and attack crews to make decisions that were not based on recognized industry practices. This not only led to a fatality but also to another injured fire fighter being inside the burning structure for almost 2 hours before being finally rescued.”

Both the *Workers Compensation Act* and the Playbook require that appropriate training records be maintained for firefighters and fire officers. The Playbook makes clear that the training records need to be maintained on an individual basis, and that the AHJ is ultimately responsible for ensuring proper records are kept.[87] The clear enunciation of this requirement arises directly from the shortcomings identified by WorkSafe BC and the Coroner in the Clearwater incident. That requirement itself is fully consistent with the AHJ’s obligations as the employer under the *Workers Compensation Act* and related OH&S regulations. Appendix 4 sets out the minimum training requirements under the Playbook that need to be reflected in such record keeping.

When setting up a training records system, such as a commercial database like FDM or Target Solutions, or a hard copy filing system, it is critical to understand the purpose of a training record. While it is important to record what training a member has received, it is equally important to be able to determine what training an individual an individual is missing, or what skills require refreshing.

The importance of maintenance training cannot be overstated. In addition, as training programs are revised and updated, it is important to ensure the Department is able to track who has, and who has not, had the updated program. The subject matter of the training needs to be clearly described in the records. If the training relates to a particular JPR under the Playbook, or an NFPA standard, that JPR should be identified.

To ensure there are no gaps in a member’s skills and competencies, the required maintenance training to ensure these members are able to demonstrate the appropriate skills, along with annual performance appraisals, should be conducted and duly recorded. The requalification frequency for all programs should be formally identified so as to provide a guide for the TO as well as for the members themselves.

The Department has recently moved to maintaining its training records using the Target Solutions records management system. The TO also uses paper forms and evaluation sheets, along with each member’s personnel file, to track the training of the members. Many training

[87] Playbook, Section 6, “Instruction, Evaluation and Records Keeping” at p. 6.

and evaluation processes are recorded on paper forms, using Target Solutions for recording practice attendances and certain skills training; however, the TO has not had the time to develop all of the required evaluation forms and processes required to assess all skills and be able to enter this information into the Target Solutions system.

The improved use of the current records management system is a work in progress. When the improvements and updates are completed, a member's records will identify all drill and maintenance training, and associated dates. In its present state, however, it is somewhat difficult to identify the specifics of a particular training event or examine a complete, individualized training record of a particular member.

15.14 Recommendations

Training and Qualifications

Recommendation: To ensure that members are adequately trained and qualified for the services they are required to perform, and given the requirements of WorkSafe BC, it is recommended that the Department formally require that NFPA standards form the basis of all training for the operational functions undertaken and emergency services provided by the Department. This approach can be adopted by Department policy or included in the District's Service Level declaration.

Recommendation: For all facets of firefighter and officer training, whether provided in-house or by external third parties, and whether in relation to new training or skills maintenance training, the Department needs to ensure that the records identify or include:

- the specific skills which are being taught or refreshed are identified, along with the relevant NFPA JPRs and/or Playbook requirements to which they relate;
- how the members taking the training were formally evaluated against the relevant standard; and
- a consistent record of the results of such evaluations on an individualized basis.

Recommendation: The Departments' RIT training is provided in-house; however, the program does not include a formal assessment/evaluation process. Given the Department's current service level is that of Full-Service Operations, which could involve interior operations, we recommend that the Department ensure its RIT training processes include proper evaluations to ensure all members at the Interior operations level meet the requirements of the NFPA 1407 standard.

Recommendation: The current version of the Playbook indicates that a fully qualified firefighter (NFPA 1001) in a Full-Service department is essentially deemed to meet the Team Leader requirements, but only for specific

tactical assignments for which they have been deemed qualified. To ensure they have the necessary training and qualifications for the supervision they reasonably are expected to provide, care should be taken when assigning Team Leader roles to such firefighters as these skills are not necessarily solely included/derived from the NFPA 1001 qualification. Given that approximately 80% of the Department's POC members are qualified at the NFPA 1001 level, and based on the exception created by the Playbook, the Department technically has sufficient Team Leaders to meet Playbook requirements. Nevertheless, we would recommend additional tactical team leader training of those POC firefighters that could be assigned this role to ensure they can effectively execute that role for the various tactical activities to which they could be assigned.

Department Training

Recommendation: Although the Department has mutual aid agreements with three neighbouring departments, there is little or no collaborative/joint training currently taking place. Such joint training is critical for safe and effective joint responses. As such, we recommend more formal processes be introduced providing for regular joint training exercises among the three departments.

Specialty Firefighter Skills Training

Recommendation: We would recommend that the Department undertake an internal review of all operational services currently provided to determine: 1) If the service needs to be provided by the Department, and if so, to what level; 2) the required training necessary to provide that service at the determined level; and 3) the actual funding needed to provide that service including equipment, initial training, and on-going maintenance training. Once responses to these questions have been determined, the Department should seek appropriate approval and funding from Council to better manage all required training functions and processes related to specialty services.

Maintenance Training

Recommendation: The Department generally conducts its live fire maintenance training at the Otter Point training ground facilities. Typically, these training exercises are conducted by the Department's in-house instructors and site technicians, and occasionally involve some joint training with other departments and their instructors. Given the potential risks associated with live fire training, it is recommended that the Department ensure that all instructors and evaluators are properly qualified to deliver such training.

Specialty Services Maintenance Training

Recommendation: The Department has determined that maintenance of specialty skills is a significant challenge, and that the competencies and skills in a number of these areas have not been well maintained since the initial training was conducted. To ensure competency is maintained, it is recommended that the frequency for reviewing/re-qualifying each discipline be set out in the annual skills maintenance training plan. It is further recommended that the Department ensure the training and evaluations for these skills are conducted in a manner that meets the requirements of the selected level of the relevant NFPA standard and the results of those evaluations recorded on an individualized basis.

Recommendation: Given the importance of ensuring that specialty team training is properly maintained, we recommend that the training division budget be reviewed to determine if sufficient funds have been allocated to address the costs associated with either backfilling units on-shift or the cost of off-duty training. If there is insufficient funding to support the required initial and on-going maintenance training for various specialty services, it may not be possible to maintain such services at the existing proficiency levels. This review should be tied to the recommendation above, that the Department examine its range of services, and the level to which it provides various technical rescue and other specialty services.

Officer Maintenance Training

Recommendation: Maintenance of day-to-day administrative and supervisory skills, along with advanced EIM training and/or refresher seminars for the Company Officers (Captains) have not generally been conducted in the past. As such, we recommend that the Department review the EIM skills of each of its officers and, if necessary, implement specific training sessions in any areas requiring improvement, as well as implement regular ongoing “refresher” EIM seminars to ensure maintenance of these various skills.

16. Response Analysis

The Department responds from two fire halls and provides service to Sooke in addition to mutual aid responses in Otter Point, East Sooke and Metchosin. The following section examines its responses by year, month, day and hour, as well as by response area, incident type and total staffing for structure fires.

16.1 Temporal Analysis

The following response analysis is based on data from the Langford Computer Aided Dispatch ("CAD") for the period 1 January 2017 to 19 July 2021[88]. During this time frame, the Department responded to 4,357 incidents. Of these, 4,311 were within the District's borders, 22 were in East Sooke, 13 were in Metchosin, and 11 were in Otter Point.

16.1.1 Incidents by Year

The total number of responses by the Department, including mutual aid, is summarized in Table 14, noting that data for 2021 are for the period ending July 19th.

Table 14: Total Responses by SFRD, 1 January 2017 to 19 July 2021

Year	Within Sooke	Mutual Aid Calls	Total Responses
2017	1,104	0	1,104
2018	933	2	935
2019	856	21	877
2020	837	11	848
2021 (to 19 July)	581	12	593
Total	4,311	46	4,357

These data are shown graphically in Figure 7 below for all responses by the Department regardless of jurisdiction.

[88] Note that the Department changed dispatch providers from Langford to Saanich in Q4 with a consequent change to the dispatch software.

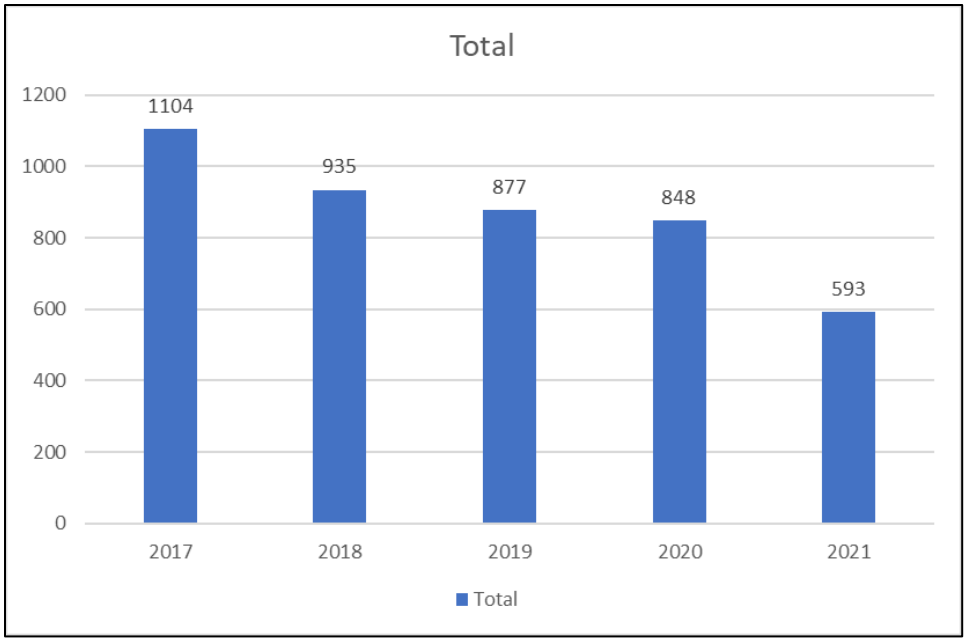

Figure 7: Total Responses by SFRD including Mutual Aid, 1 January 2017 to 19 July 2021

Responses only within Sooke (therefore excluding mutual aid) total 4,311 calls for the same period, which are illustrated graphically in Figure 8.

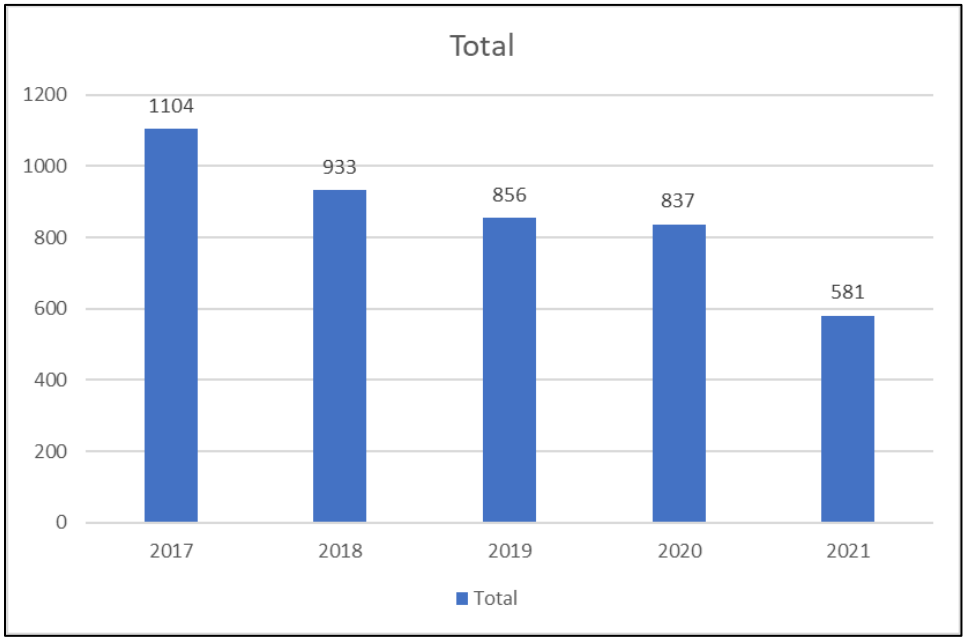

Figure 8: Total Responses within Sooke, 1 January 2017 to 19 July 2021

As shown, the bar graph presents a somewhat misleading picture, since the figures for 2021 are for a partial year. Indeed, projected forward, and assuming the same call volume for the remaining months of 2021, it would mean that the Department will actually have more than 1,000 calls this year. In the following sections, the partial year may be omitted for clarity; and where this occurs, the excision will be expressly noted.

Taking the four complete years, there was a total of 3,730 incidents for the SFRD within Sooke, as shown in Figure 9.

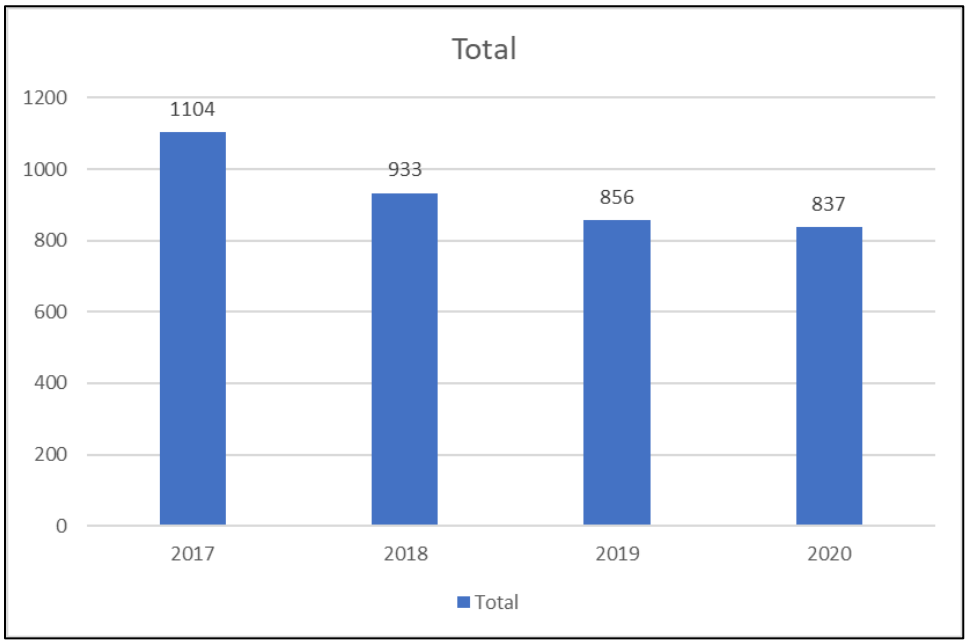

Figure 9: Total Responses within Sooke, 2017-2020.

Based on this view of the data, the Department's total number of responses from 2017 to the present has declined. This decline, however, arises principally from changes to medical responses ("FMR") – driven entirely by dispatch changes made by BCEHS. The calls passed to the fire services were initially curtailed under a revised "Response Allocation Protocol" (the "RAP"). The RAP then was replaced in April 2019 by a new "Clinical Response Model," which resulted in even fewer medical calls being directed to fire departments. These changes were then amplified starting in late March of 2020, when BCEHS significantly curtailed FMR calls in reaction to the COVID-19 pandemic. For the following five-month period in 2020, the Department responded to fewer FMR calls in total, than it did for an average month in the preceding period.

That COVID-related policy has now been reversed, and the Department's FMR calls rebounded sharply starting in autumn 2020. For the period to 1 January to 19 July 2021, the Department responded to some 285 FMR calls (or nearly as many as all of 2020).

The effects of these BCEHS policy changes are illustrated in Figure 10, which evidence a significant reduction in the number of FMR calls since 2017, and a dramatic drop in calls in 2020 (remembering that the data for 2021 covers only a partial year).

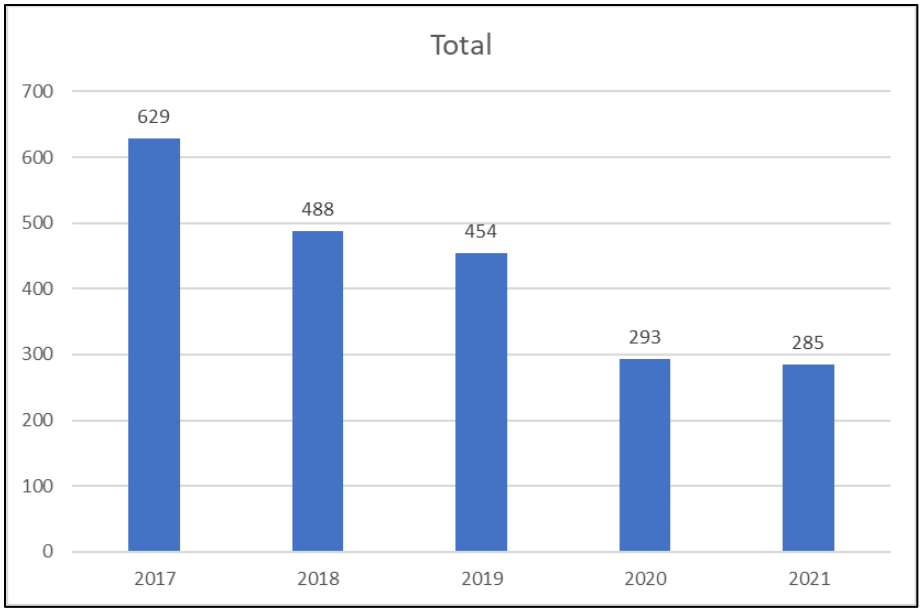

Figure 10: Total Responses: FMR only, within Sooke, 1 January 2017 to 19 July 2021

The rebound for the first half of 2021 can be seen in Figure 11, which shows the call volumes by month for 2020 and the first part of 2021. Projected forward, assuming calls coming at the same rate as the period from 1 January to 19 July, the Department is likely to see around 500 FMR calls for 2021, and more than 1,000 calls in total.

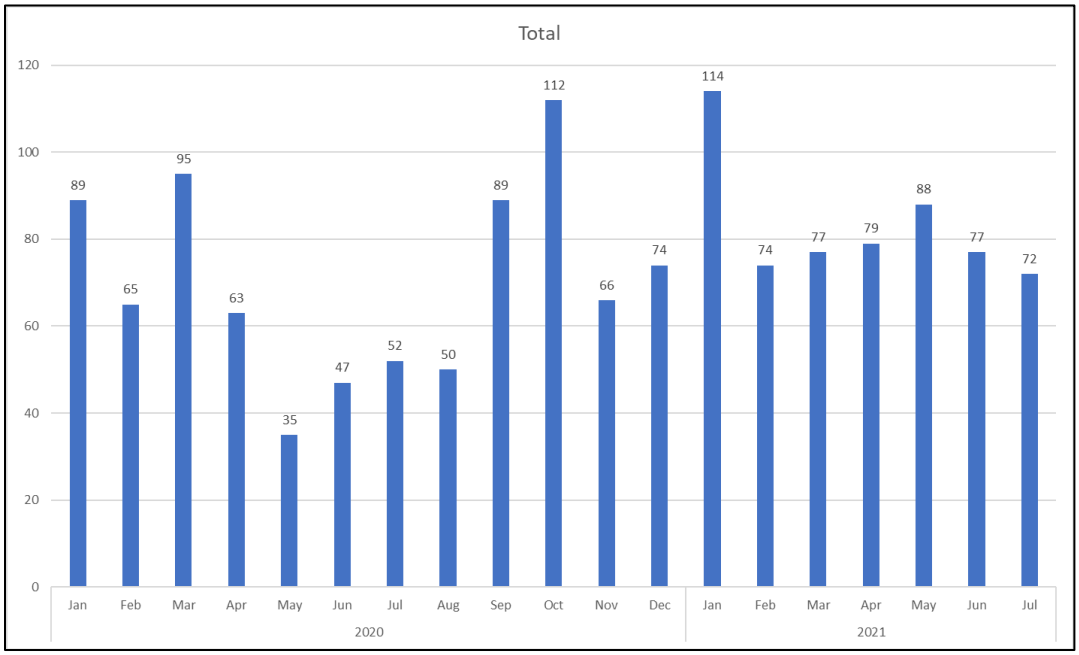

Figure 11: SFRD All Incidents within Sooke 1 January 2020 to 19 July 2021.

Figure 12 shows the total number of responses excluding FMR. Measured this way, it can be seen that the Department's non-medical call volumes have risen since 2017.

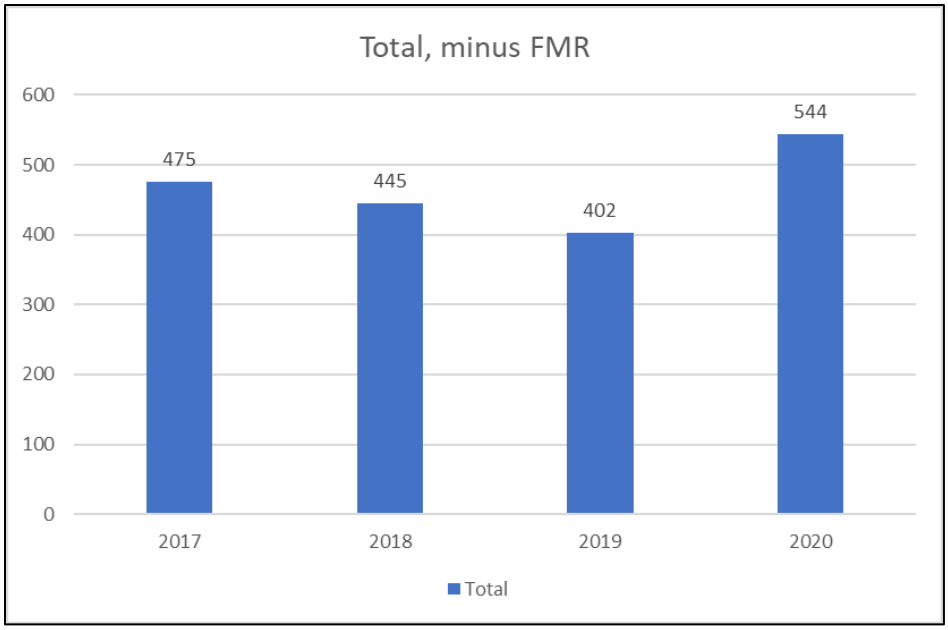

Figure 12: Total Responses: Except FMR within Sooke, 2017-2020

16.1.2 Incidents by Month

The Department's responses by month for the four complete years in the dataset are summarized in Table 15, with December having the lowest total call volume with 275 incidents, compared with October, which has a total of 395, or 44% more than the slowest month.

Table 15: Total Incidents within Sooke by Month, 2017 to 2020.

Month	Count
January	329
February	312
March	344
April	298
May	277
June	289

Month	Count
July	318
August	291
September	320
October	395
November	282
December	275
Total	3,730

Viewed graphically, Figure 13 shows the very significant range in total incidents by month.

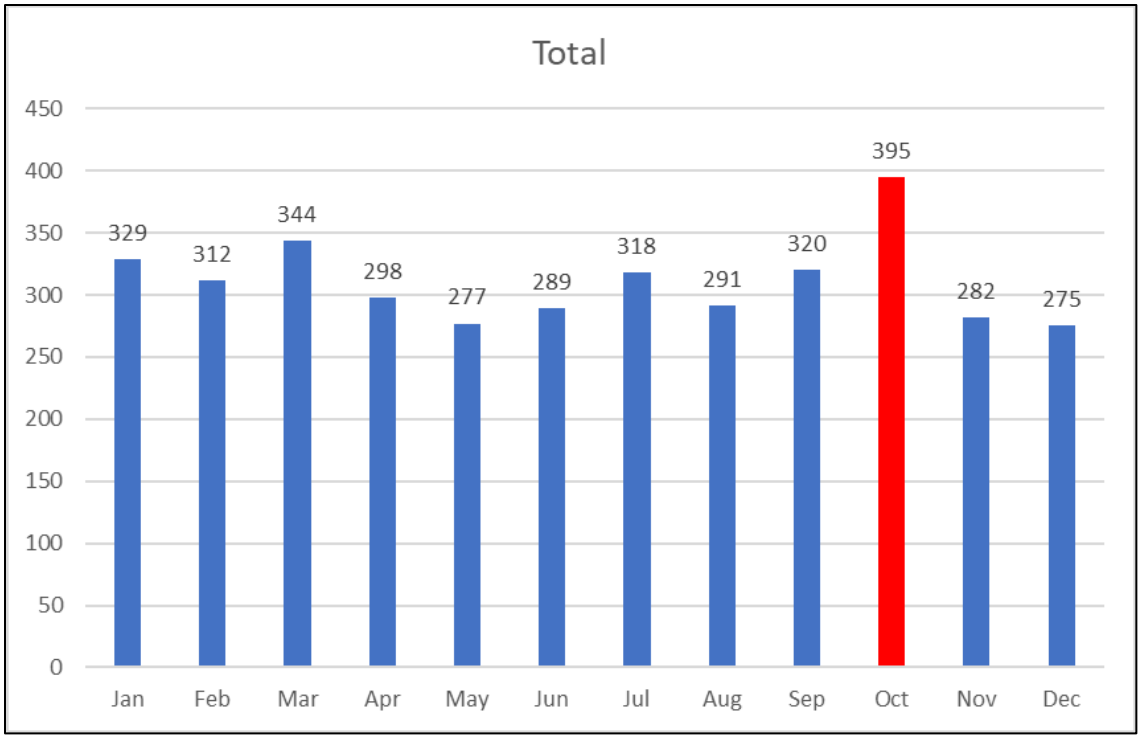

Figure 13: Total Monthly Responses within Sooke, 2017-2020

16.1.3 Incidents by Day

Incidents by day of the week are shown in Table 16 and this type of distribution with the peak of calls Friday through Sunday is common with most municipal fire departments.

Table 16: All Responses within Sooke by Day of the Week, 2017-2020

Day	Total
Sunday	558
Monday	501
Tuesday	538
Wednesday	529
Thursday	474
Friday	556
Saturday	574
Total	3,730

Viewed graphically in Figure 14 the weighting at the end of the week is clear.

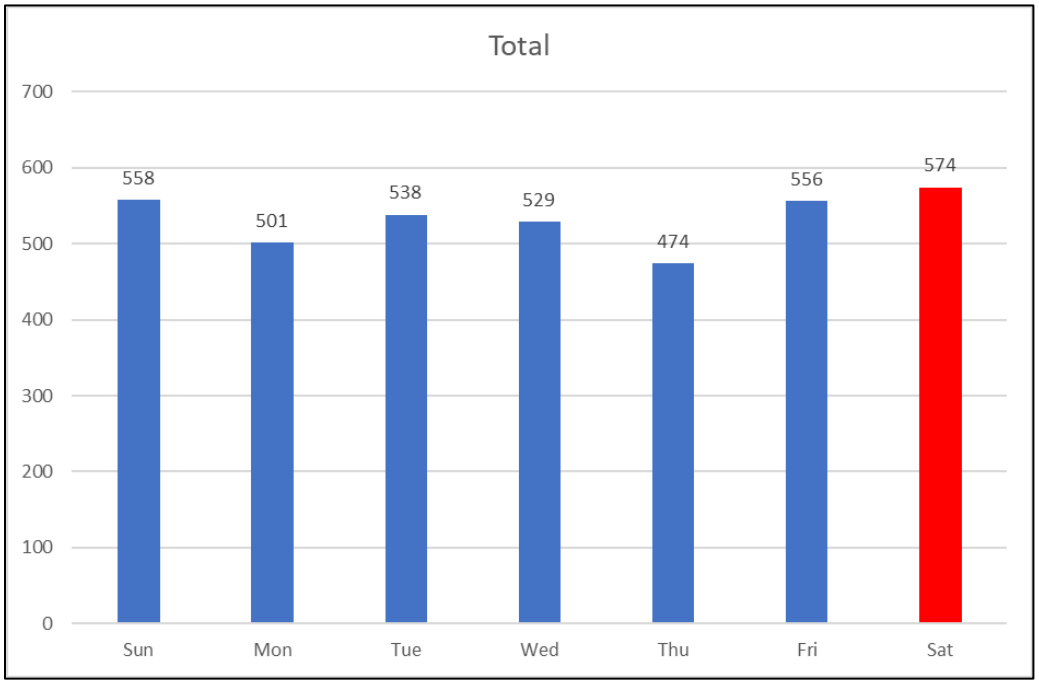

Figure 14: Total Daily Responses within Sooke, 2017-2020

16.1.4 Incidents by Hour

Incidents by hour are shown in Table 17 and this illustrates the range over which the Department provides service with a peak of 266 incidents at 16:00 and the lowest call volume at 03:00.

Table 17: All Responses within Sooke by Hour, 2017-2020

Hour	Incidents
00:00	88
01:00	74
02:00	71
03:00	44
04:00	53
05:00	50
06:00	83
07:00	106
08:00	155
09:00	175
10:00	196
11:00	220

Hour	Incidents
12:00	235
13:00	225
14:00	218
15:00	244
16:00	266
17:00	236
18:00	190
19:00	213
20:00	197
21:00	155
22:00	140
23:00	96
Total	3,730

These data are illustrated graphically in Figure 15.

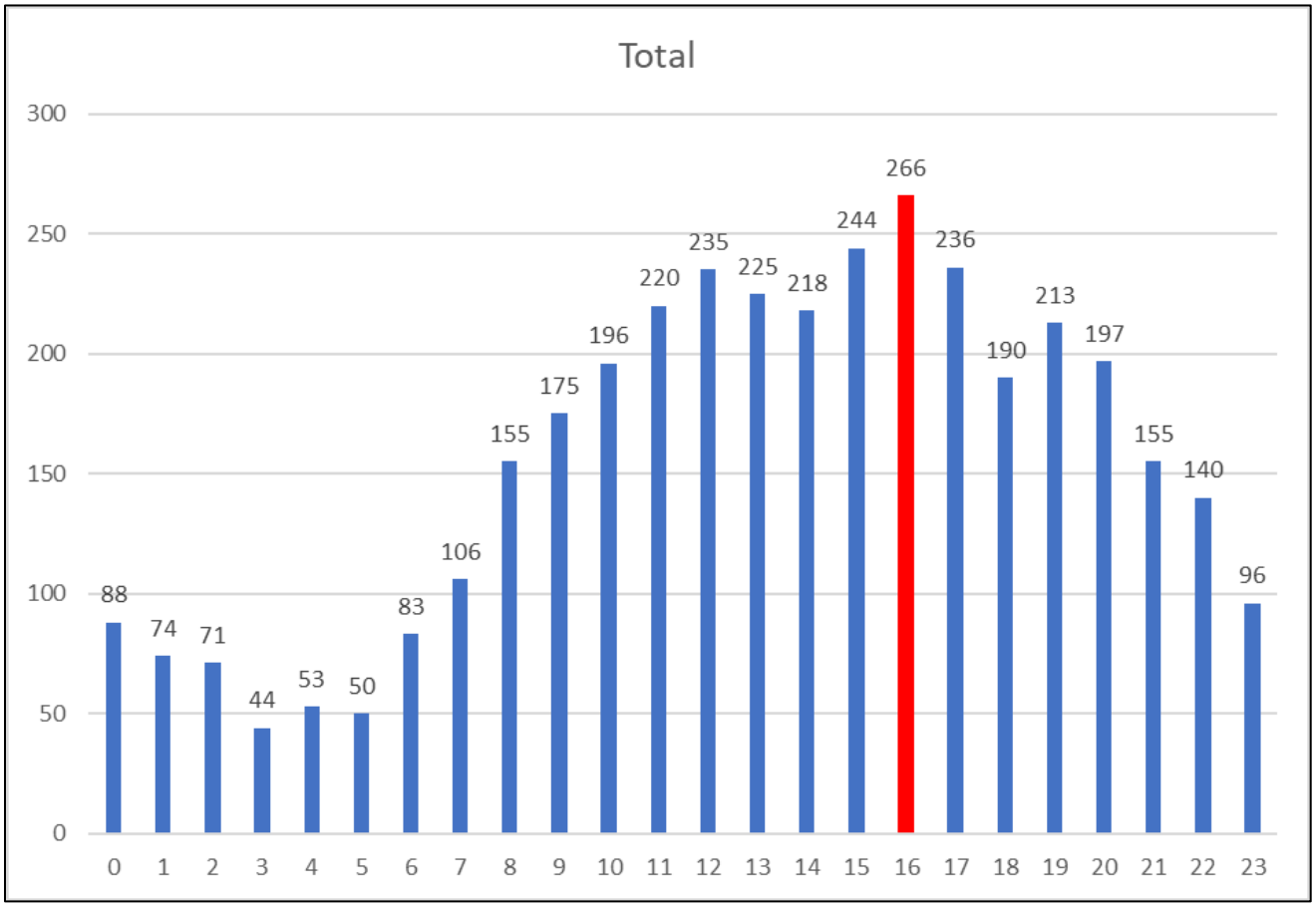

Figure 15: Total Hourly Responses within Sooke, 2017-2020

Responses by the Department can be further analyzed as shown in the “heat maps” for Incidents by Year and Month and Incidents by Day and Hour. Each of these views underline the complexity of fire service responses which are significantly variable over the period under study.

16.1.5 Incidents by Year and Month

Table 18 illustrates the wide range by year and by month. The very busiest month was October 2017, more than triple the call volume for May 2020. Clearly, the 2020 figures were affected by the pandemic, as the tourist season was reduced and BCEHS changed its Clinical Response Model to limit call-outs of the fire service.

Table 18: Total Responses within Sooke, 2017-2020, by Year and by Month

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2017	110	84	82	86	88	99	112	107	81	113	87	55	1104
2018	75	76	86	69	78	82	67	67	94	96	63	80	933
2019	55	87	81	80	76	61	87	67	56	74	66	66	856
2020	89	65	95	63	35	47	52	50	89	112	66	74	837
Total	329	312	344	298	277	289	318	291	320	395	282	275	3,730

16.1.6 Incidents by Day and Hour

Similarly, Table 19 shows the range by hour and day of the week. The busiest hour as 16:00 hours on Tuesday, more 18 times greater than the slowest hour, 03:00 on Thursday.

Table 19: Total Responses within Sooke, 2017-2020, by Day and by Hour.

Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
Sun	22	12	13	8	8	5	20	7	19	21	24	37	40	31	50	42	37	39	18	32	26	20	17	10	558
Mon	8	8	12	7	4	4	4	15	10	30	27	34	31	30	27	33	38	41	28	31	25	18	21	15	501
Tue	10	13	11	10	6	6	8	19	21	14	27	28	33	29	29	39	54	28	41	40	23	18	22	9	538
Wed	16	6	10	5	12	12	15	13	27	27	26	30	37	30	23	41	35	39	21	21	32	24	18	9	529
Thu	13	9	9	3	8	6	8	14	27	31	33	29	29	32	33	24	27	24	18	21	31	19	11	15	474
Fri	9	10	10	5	7	8	13	26	24	30	25	30	30	30	31	34	35	29	32	41	24	32	24	17	556
Sat	10	16	6	6	8	9	15	12	27	22	34	32	35	43	25	31	40	36	32	27	36	24	27	21	574
Total	88	74	71	44	53	50	83	106	155	175	196	220	235	225	218	244	266	236	190	213	197	155	140	96	3,730

Each of these views illustrates the complexity of providing a service with relatively limited staffing and equipment. For a volunteer department like SFRD this is further exacerbated by lower response by off-duty members Monday to Friday during business hours.

16.2 Turnout Time Analysis

The following section provides an analysis of the Department's ability to initiate its response to emergency incidents based on the hour of day. This identifies a significant difference in response capability between the times when firefighters are on duty at the fire hall and when they are not. Of particular concern are instances where, at night, the first unit's time from alarm to enroute for an emergency incident is up to three times as long as during the middle of the day.

The improved daytime response primarily relates to the presence of career staff. Unfortunately, the data are not sufficiently granular to enable an analysis of how many members go enroute in the first engine, what the classification is of such members, and whether, for example, departure is delayed awaiting the assembly of a larger crew.

It is clear, however, that responses to incidents after midnight are materially delayed compared to daytime responses.

16.2.1 All Fire Types - Engine 1 Time to Go Enroute

Over 24 Hours

The time for Engine 1 (the primary unit for all fire incidents) to go enroute by hour is shown in Table 20 and Figure 16. The time taken ranges from a low of 4 minutes and 15 seconds in early afternoon, to three times as long (12 minutes and 41 seconds) at midnight.

Table 20: Engine 1 Average Enroute Time for Fires over 24 Hours

Hour	Average Enroute
00:00	0:12:41
01:00	0:11:02
02:00	0:09:53
03:00	0:08:48
04:00	0:11:50
05:00	0:10:41
06:00	0:11:15
07:00	0:10:11
08:00	0:06:14
09:00	0:04:08
10:00	0:06:27
11:00	0:06:10
12:00	0:05:08
13:00	0:04:45
14:00	0:04:15
15:00	0:05:26
16:00	0:08:07
17:00	0:05:15
18:00	0:07:31
19:00	0:07:05
20:00	0:07:47
21:00	0:06:44
22:00	0:07:50
23:00	0:10:17
24 Hour Average	**0:07:14**

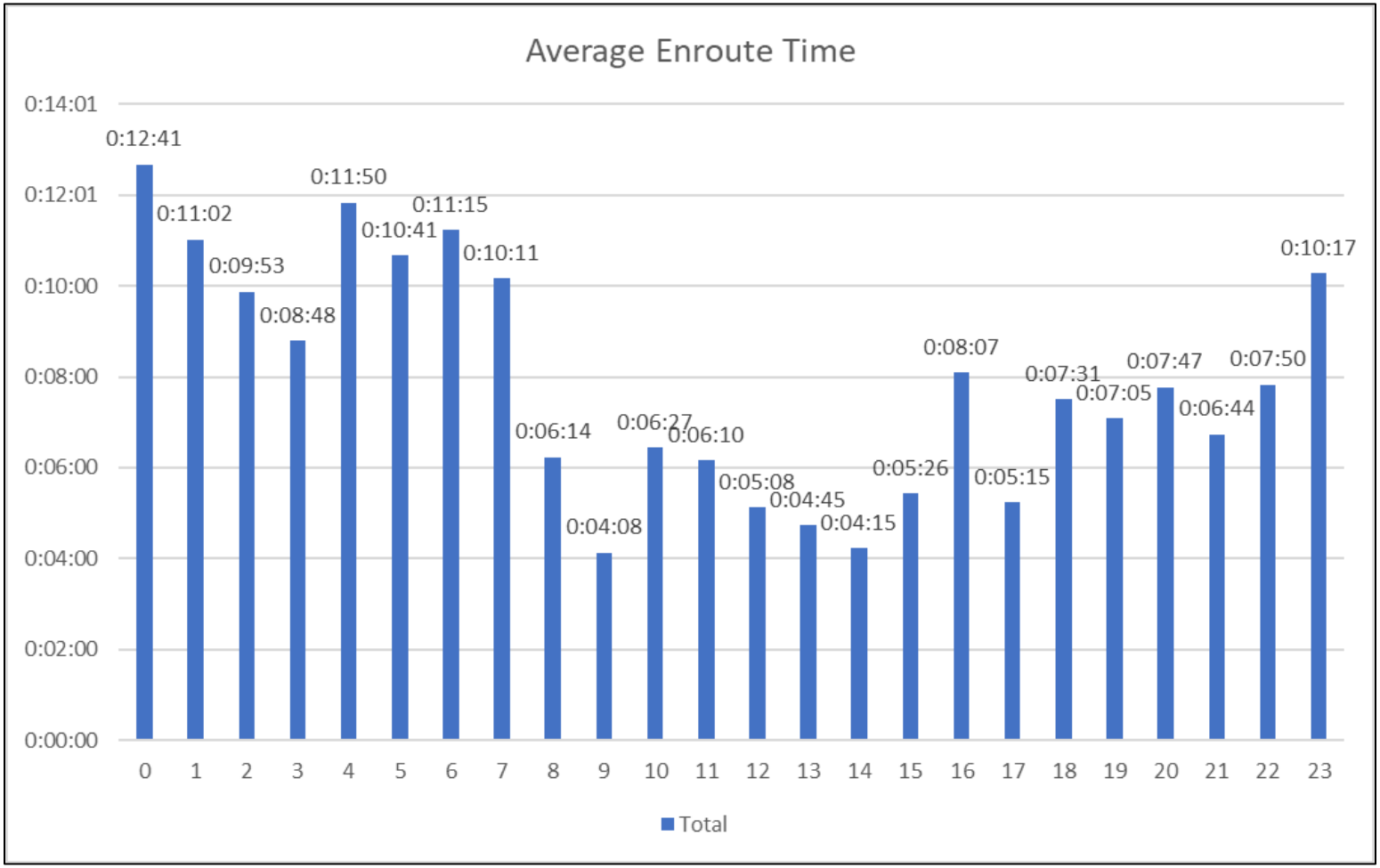

Figure 16: Engine 1 Average Enroute Time for Fires over 24 Hours

Career on Duty (07:00 to 18:00)

These data can be parsed into the time taken while career staff are on duty as shown in Table 21 and Figure 17. When career staff are on-duty, Engine 1's enroute time is an average of 5 minutes, 51 seconds for all calls. The turnout times range from a low of 4 minutes 15 seconds to a high (between 07:00 – 08:00) of 10 minutes, 11 seconds.

Table 21: Engine 1 Average Enroute Time for Fires over 07:00 to 18:00

Hour	Average Enroute
07:00	0:10:11
08:00	0:06:14
09:00	0:04:08
10:00	0:06:27
11:00	0:06:10
12:00	0:05:08

Hour	Average Enroute
13:00	0:04:45
14:00	0:04:15
15:00	0:05:26
16:00	0:08:07
17:00	0:05:15

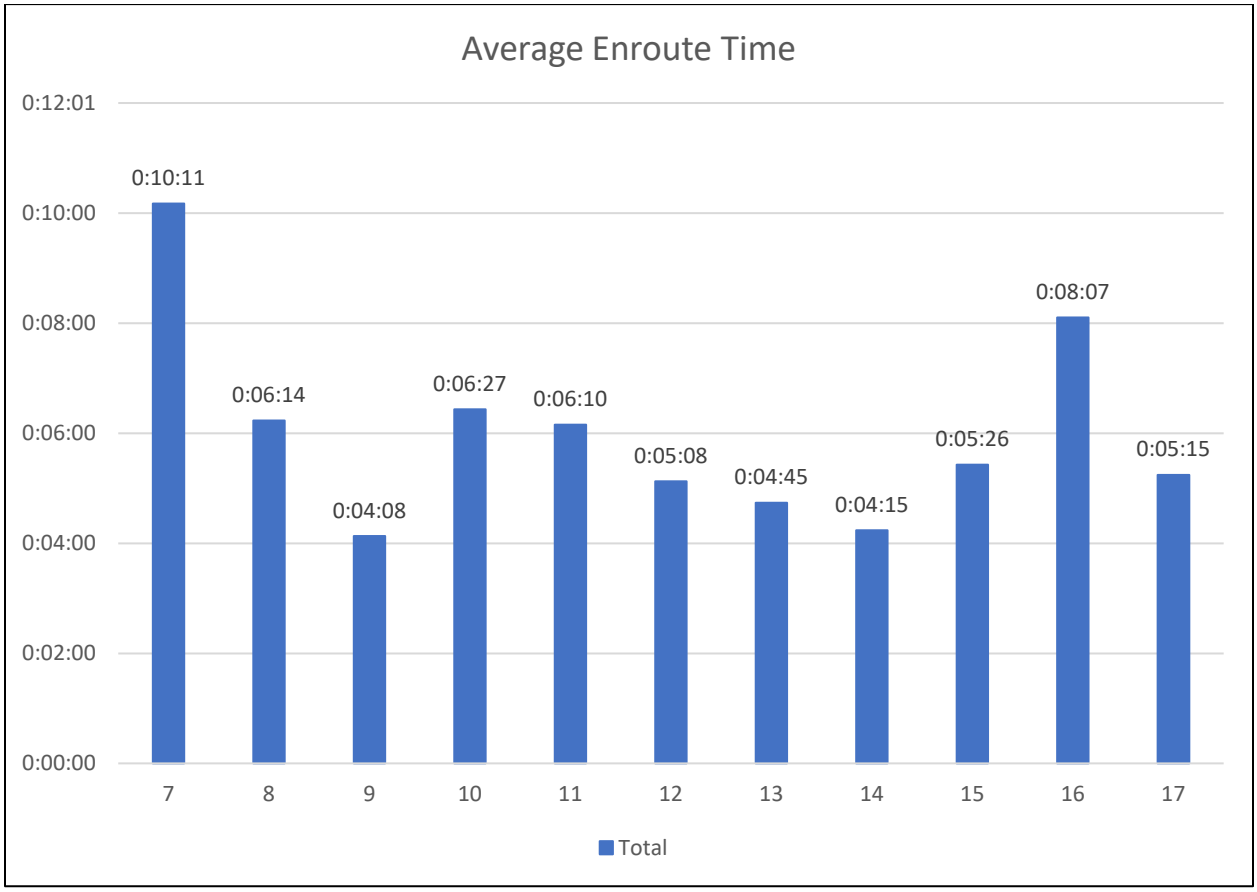

Figure 17: Engine 1 Average Enroute Time for Fires over 07:00 to 18:00

Paid-on-Call (18:00 to 07:00)

For the hours when the career staff are not on duty at the fire hall, the average time between alarm receipt and the engine going enroute is shown in Table 22 and Figure 18. During these times, Engine 1's enroute time gets progressively longer and reaching a peak from 23:00 to 06:00 in the morning. Across all of the fire calls that occurred in the hours from 18:00 – 07:00, the average enroute time is 8 minutes 38 seconds. However, within that time frame, as shown in Table 22, responses after midnight are materially slower, ranging up to 12 minutes 41 seconds before an engine leaves the fire hall.

Table 22: Engine 1 Average Enroute Time for Fires 18:00 to 07:00

Hour	Average Enroute
00:00	0:12:41
01:00	0:11:02
02:00	0:09:53
03:00	0:08:48
04:00	0:11:50
05:00	0:10:41
06:00	0:11:15

Hour	Average Enroute
18:00	0:07:31
19:00	0:07:05
20:00	0:07:47
21:00	0:06:44
22:00	0:07:50
23:00	0:10:17

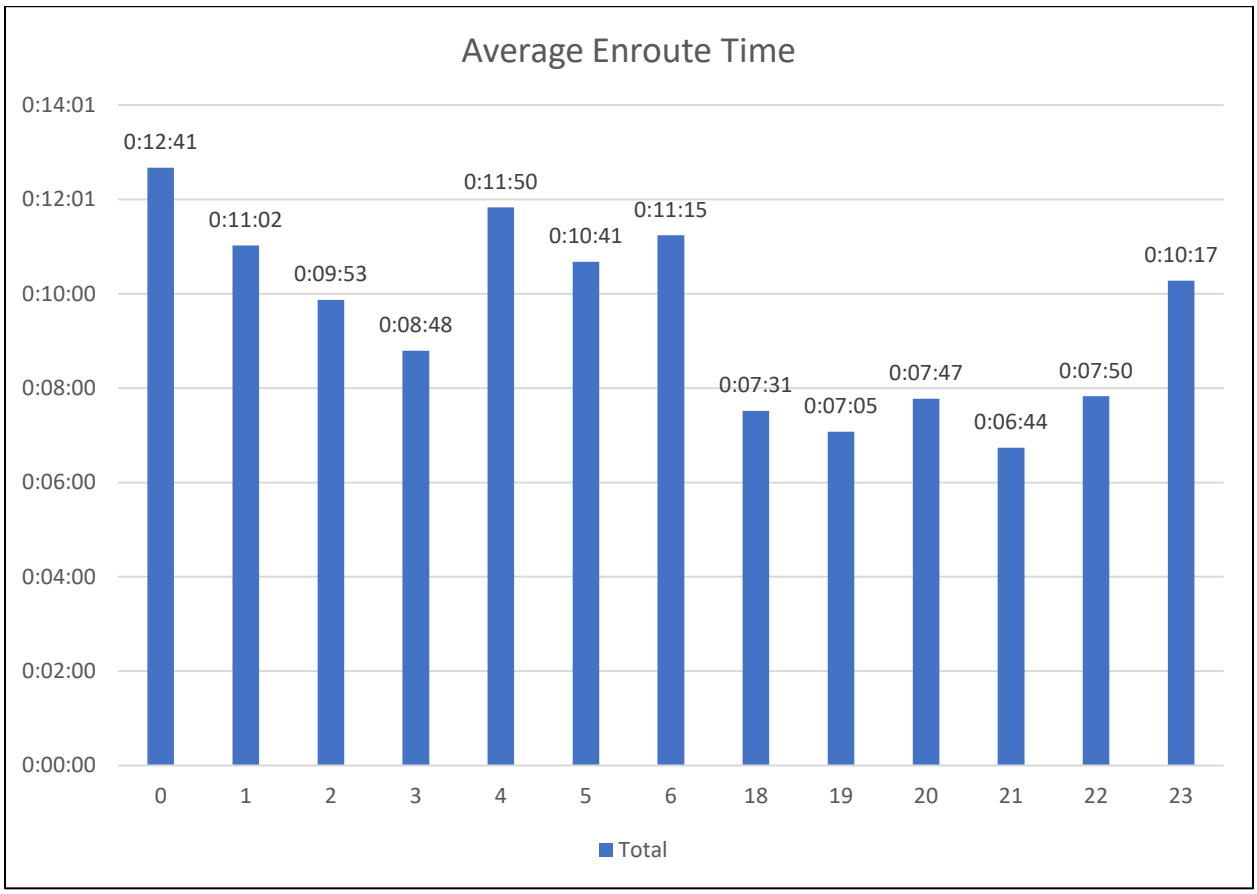

Figure 18: Engine 1 Average Enroute Time for Fires 18:00 to 07:00

16.2.2 Alarms Activated - Engine 1 Time to Go Enroute

Over 24 Hours

The time taken for Engine 1 to go enroute for residential and commercial alarms activated are listed in Table 23 and displayed on the next page in Figure 19. This incident type is considered an emergency response. Across all calls of this type, the average time to go enroute is 6 minutes 7 seconds. During the hours the career crew is on duty, the times to go enroute are generally within four to six minutes, but are more than double for many hours when the career members are not on duty and up to three times as long for hour starting at 06:00, when the average time for the first unit to response is 14 minutes, 54 seconds.

Table 23: Engine 1 Average Enroute Time for Alarms Activated over 24 Hours

Hour	Average Enroute
00:00	0:12:39
01:00	0:12:18
02:00	0:12:01
03:00	0:10:33
04:00	
05:00	0:10:13
06:00	0:14:54
07:00	0:05:35
08:00	0:05:00
09:00	0:04:40
10:00	0:05:35
11:00	0:05:38

Hour	Average Enroute
12:00	0:05:04
13:00	0:04:28
14:00	0:04:54
15:00	0:05:14
16:00	0:05:31
17:00	0:05:30
18:00	0:05:53
19:00	0:06:49
20:00	0:09:46
21:00	
22:00	0:09:46
23:00	0:08:36

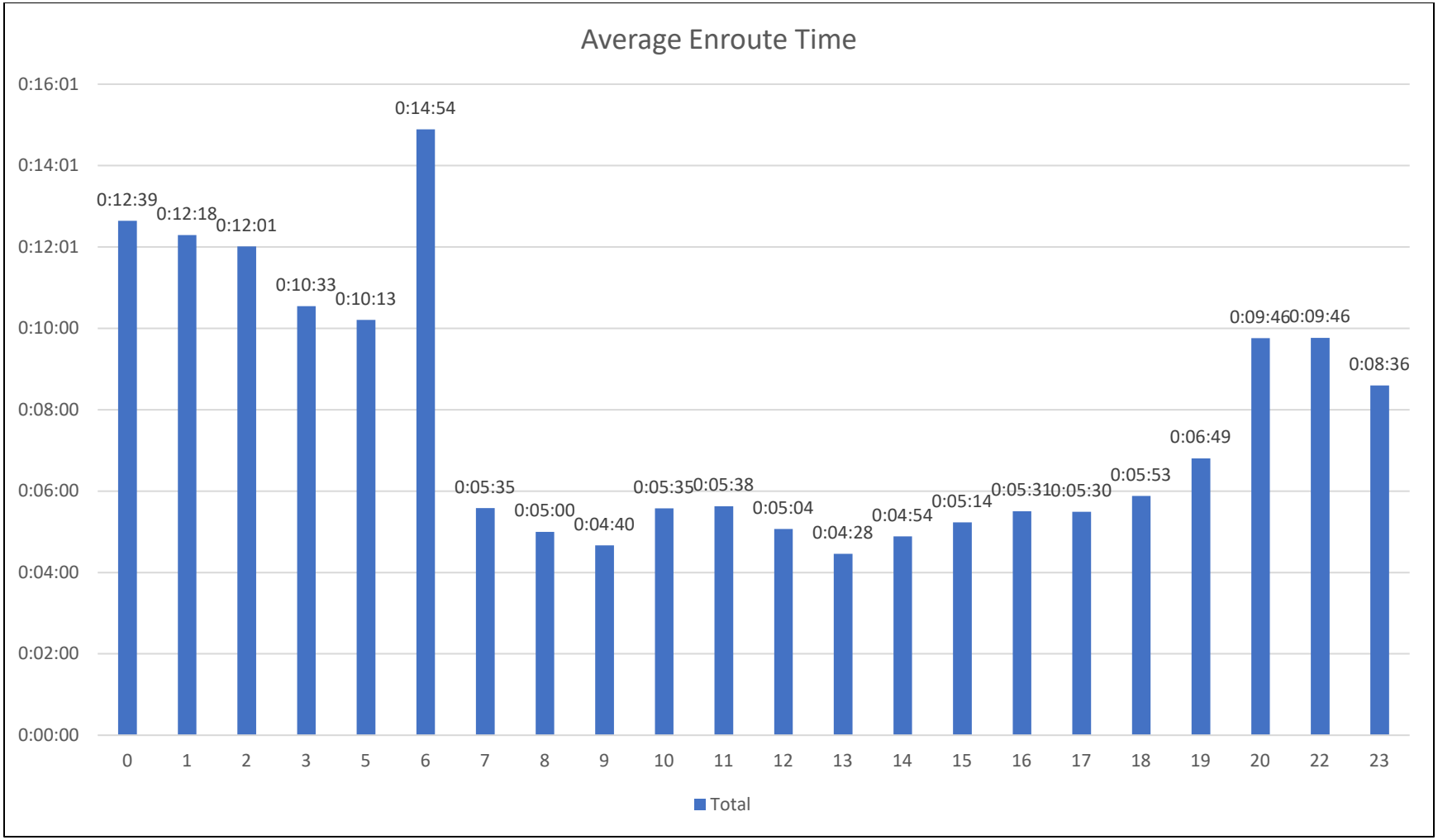

Figure 19: Engine 1 Average Enroute Time for Alarms Activated over 24 Hours

Career on Duty (07:00 to 18:00)

The data in Table 24 and Figure 20 are for the hours when the career members are on duty. The average enroute time for all such calls is 5 minutes 14 seconds, and range between four and six minutes across the 11-hour period.

Table 24: Engine 1 Average Enroute Time for Alarms Activated over 07:00 to 18:00

Hour	Average Enroute
07:00	0:05:35
08:00	0:05:00
09:00	0:04:40
10:00	0:05:35
11:00	0:05:38
12:00	0:05:04

Hour	Average Enroute
13:00	0:04:28
14:00	0:04:54
15:00	0:05:14
16:00	0:05:31
17:00	0:05:30

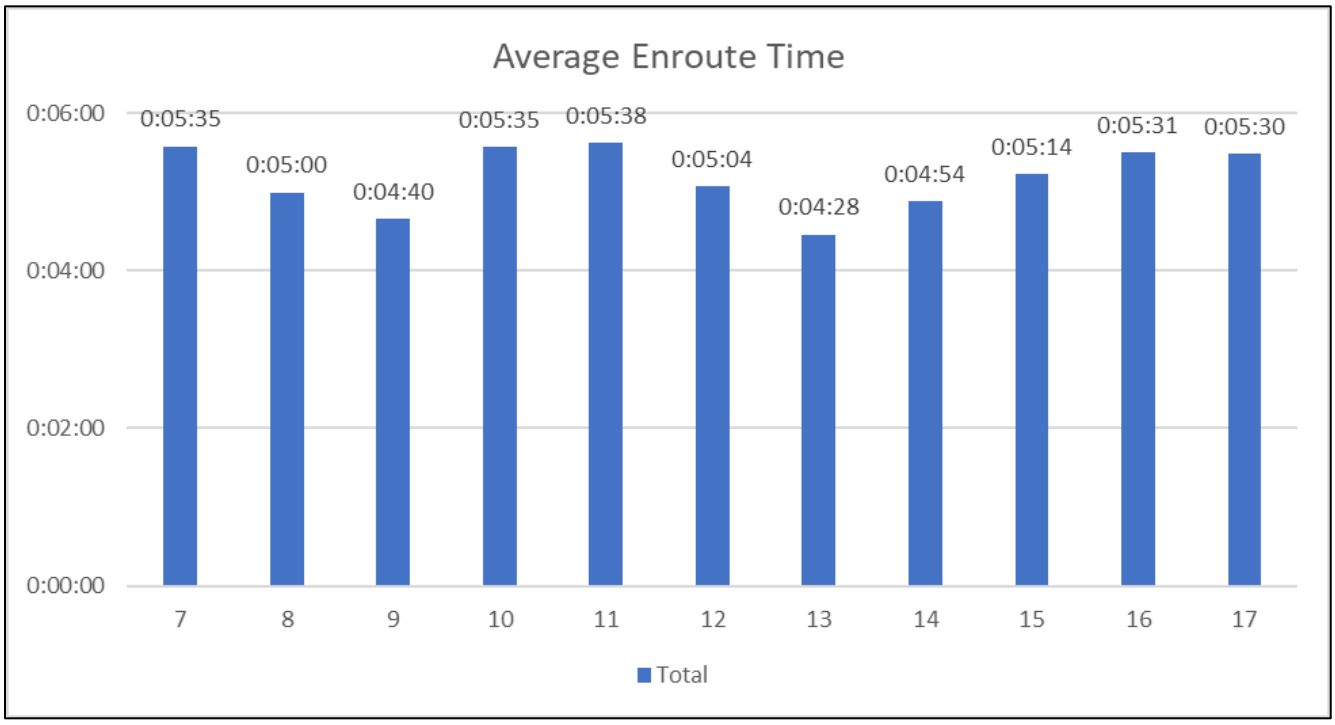

Figure 20: Engine 1 Average Enroute Time for Alarms Activated over 07:00 to 18:00

Paid-on-Call (18:00 to 07:00)

By contrast, the data in Table 25 and Figure 21 illustrate the time for Engine 1 to go enroute to residential and commercial alarms for the period of time when the career staff are not on duty. The average enroute time for these calls is 9 minutes 8 seconds, ranging from a low of just under six minutes to a high of 14 minutes 54 seconds.

Table 25: Engine 1 Average Enroute Time for Alarms Activated over 18:00 to 07:00

Hour	Average Enroute
00:00	0:12:39
01:00	0:12:18
02:00	0:12:01
03:00	0:10:33
04:00	-
05:00	0:10:13
06:00	0:14:54

Hour	Average Enroute
18:00	0:05:53
19:00	0:06:49
20:00	0:09:46
21:00	-
22:00	0:09:46
23:00	0:08:36

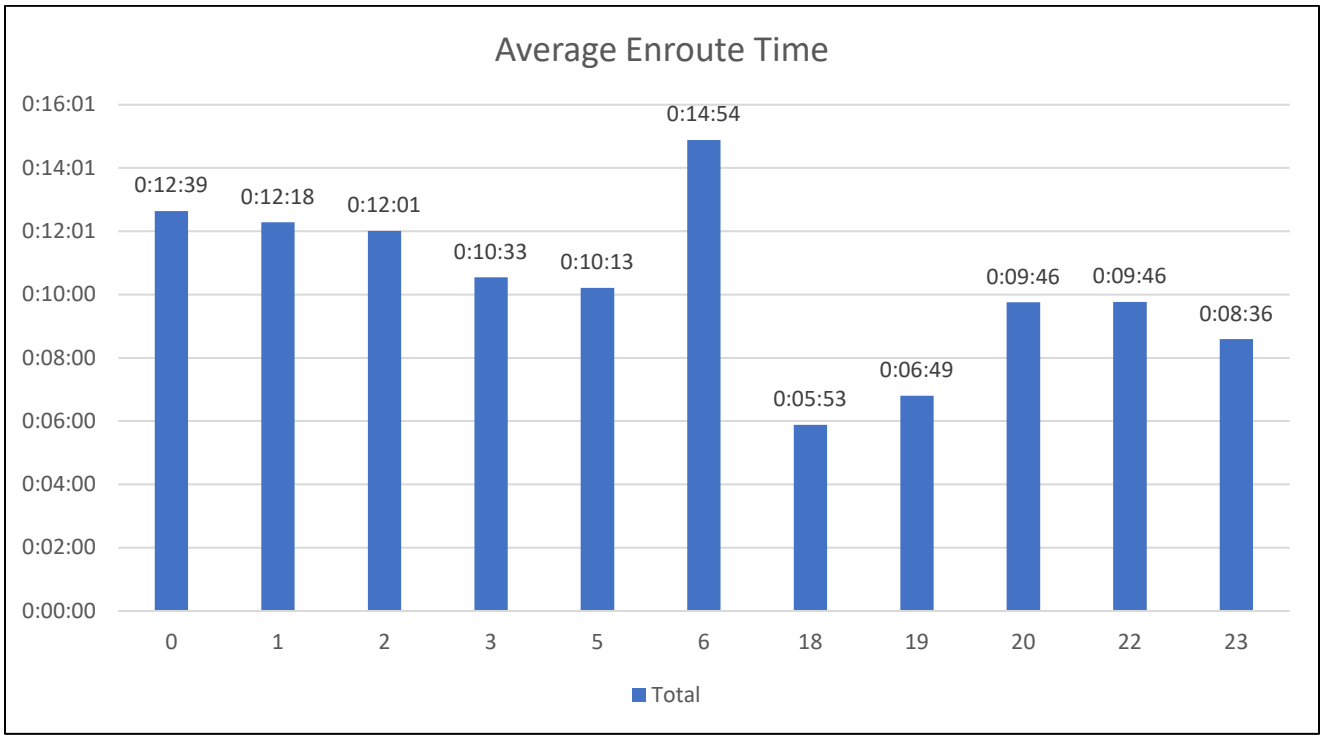

Figure 21: Engine 1 Average Enroute Time for Alarms Activated over 18:00 to 07:00

16.2.3 Medical Response - Brush 1 Time to Go Enroute

Over 24 Hours

The times to go enroute to medical calls are summarized in Table 26 and displayed on the next page in Figure 22. For medical responses, the Department responds with a different unit, Brush 1. The time to go enroute with this unit is significantly quicker than with the Engine as the members can respond without donning the personal protective equipment required for fire or similar responses.

Across all such calls, the average enroute time is 3 minutes 56 seconds. After hours responses, however, are significantly slower, as can be seen in the break out by hour.

Table 26: Brush 1 Average Enroute Time for Medical Responses over 24 Hours

Hour	Average Enroute
00:00	0:07:26
01:00	0:07:57
02:00	0:08:23
03:00	0:07:54
04:00	0:09:11
05:00	0:11:04
06:00	0:08:38
07:00	0:02:23
08:00	0:02:16
09:00	0:02:25
10:00	0:02:16
11:00	0:02:32

Hour	Average Enroute
12:00	0:02:25
13:00	0:02:40
14:00	0:01:59
15:00	0:02:11
16:00	0:04:51
17:00	0:02:13
18:00	0:05:15
19:00	0:06:08
20:00	0:05:58
21:00	0:05:38
22:00	0:06:33
23:00	0:06:39

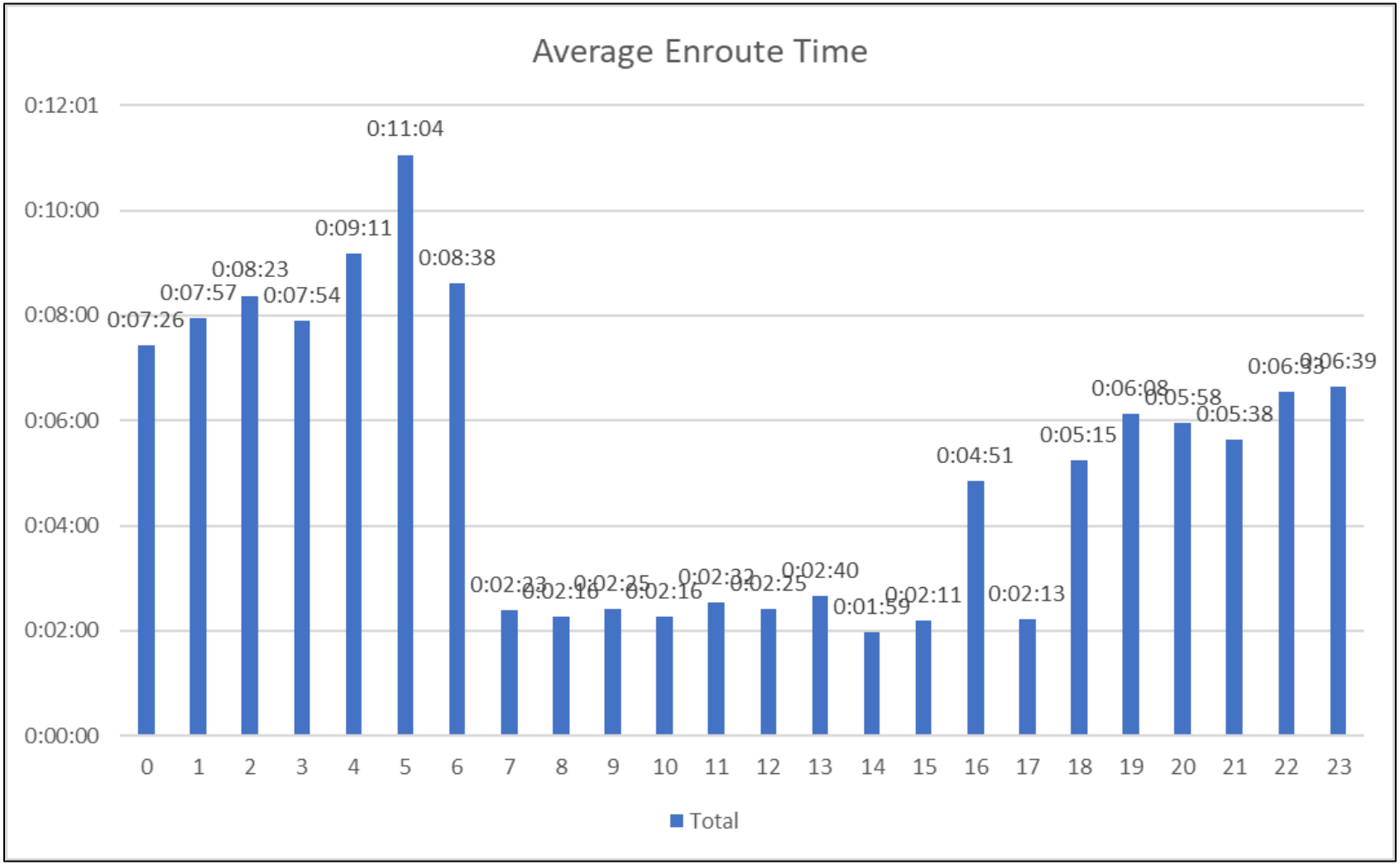

Figure 22: Brush 1 Average Enroute Time for Medical Responses over 24 Hours

Career on Duty (07:00 to 18:00)

The data in Table 27 and Figure 27 are the enroute times for the Brush 1 unit responding during the hours when the career staff are on duty. The average enroute time for all such responses is 2 minutes 34 seconds. The times range from a low of less than two minutes at 14:00 to a maximum of four minutes, 51 seconds at 16:00 hours. With the exception of the response time at 16:00 hours, all other response are less than three minutes.

Table 27: Brush 1 Average Enroute Time for Medical Responses 07:00 to 18:00

Hour	Average Enroute
07:00	0:02:23
08:00	0:02:16
09:00	0:02:25
10:00	0:02:16
11:00	0:02:32
12:00	0:02:25

Hour	Average Enroute
13:00	0:02:40
14:00	0:01:59
15:00	0:02:11
16:00	0:04:51
17:00	0:02:13

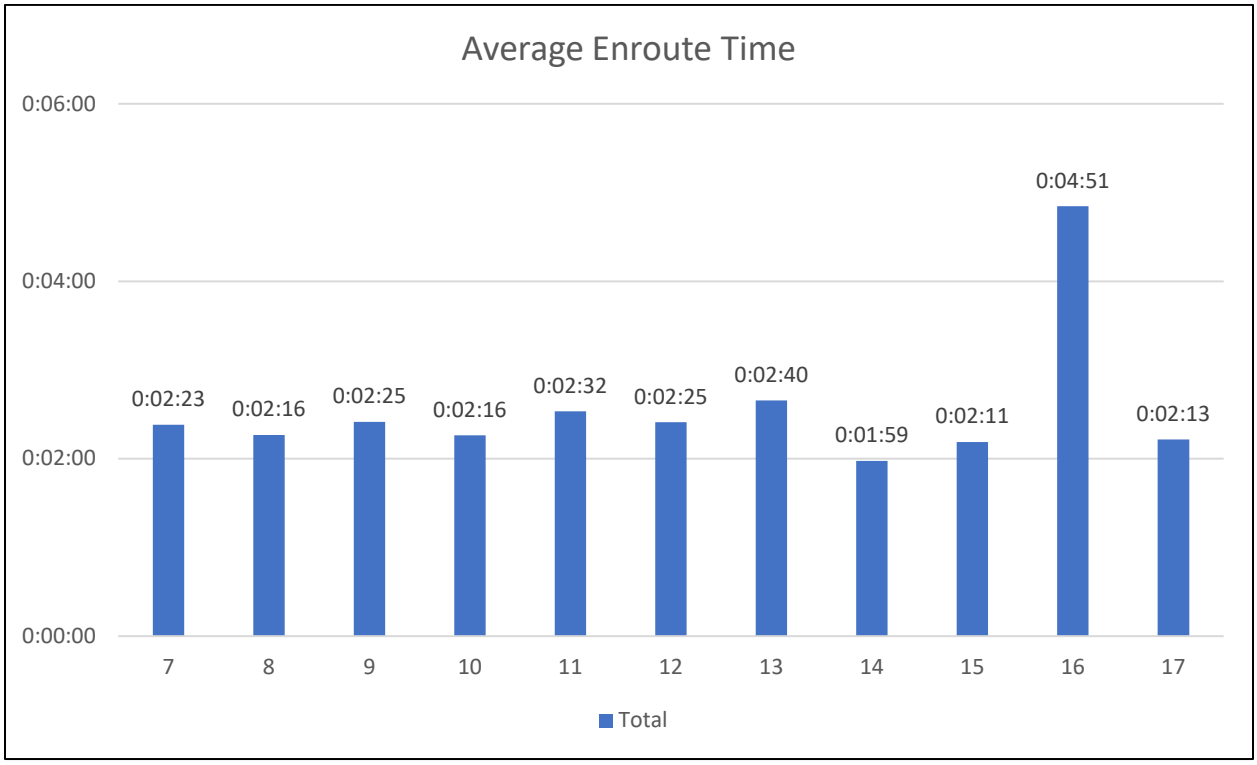

Figure 23: Brush 1 Average Enroute Time for Medical Responses 07:00 to 18:00

Paid-on-Call (18:00 to 07:00)

Table 28 and Figure 24 show the time to go enroute for medical emergencies when the career staff are not on duty. The average time to go enroute during this period is 7 minutes 2 seconds. For the evening hours from 18:00 to 01:00, the times to go enroute are between five and seven minutes, while after 01:00, they are still longer taking more than nine minutes at 04:00 and more than 11 minutes at 05:00.

Table 28: Brush 1 Average Enroute Time for Medical Responses 18:00 to 07:00

Hour	Average Enroute
00:00	0:07:26
01:00	0:07:57
02:00	0:08:23
03:00	0:07:54
04:00	0:09:11
05:00	0:11:04
06:00	0:08:38

Hour	Average Enroute
18:00	0:05:15
19:00	0:06:08
20:00	0:05:58
21:00	0:05:38
22:00	0:06:33
23:00	0:06:39

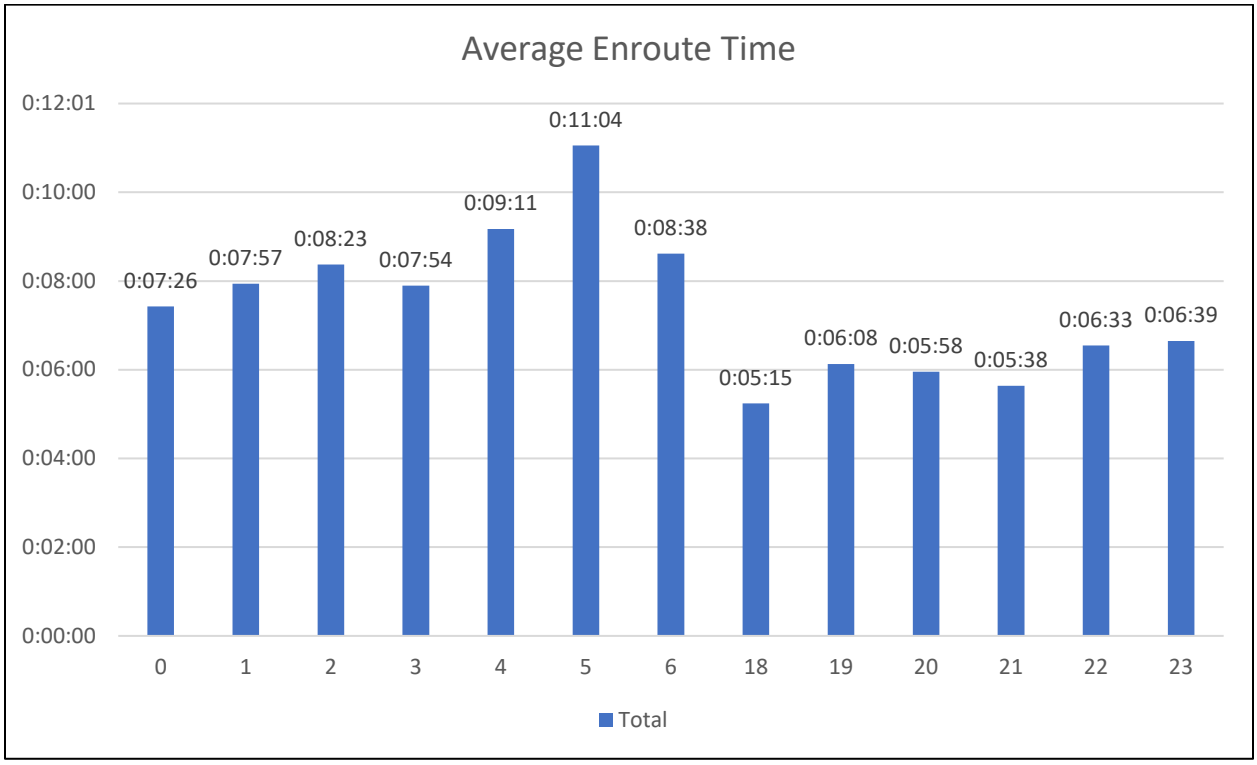

Figure 24: Brush 1 Average Enroute Time for Medical Responses 18:00 to 07:00

16.2.4 Summary

The enroute times for emergency incidents such as fires, alarms ringing, and medical responses are consistently much greater when the career staff are not on duty at Hall 1. An extreme example is for medical responses which may include cardiac and respiratory incidents where the time to have the first unit begin its response may be up to four times as long as when career members are on duty. As such we recommend the Department change its staffing model to provide 24/7 coverage at Hall 1.

16.3 Spatial Analysis

The Department's primary response area is shown in Figure 25, which includes the Silver Spray development. As noted elsewhere in this report, the Silver Spray development is part of Sooke but receives a primary or initial response from the ESVFD.

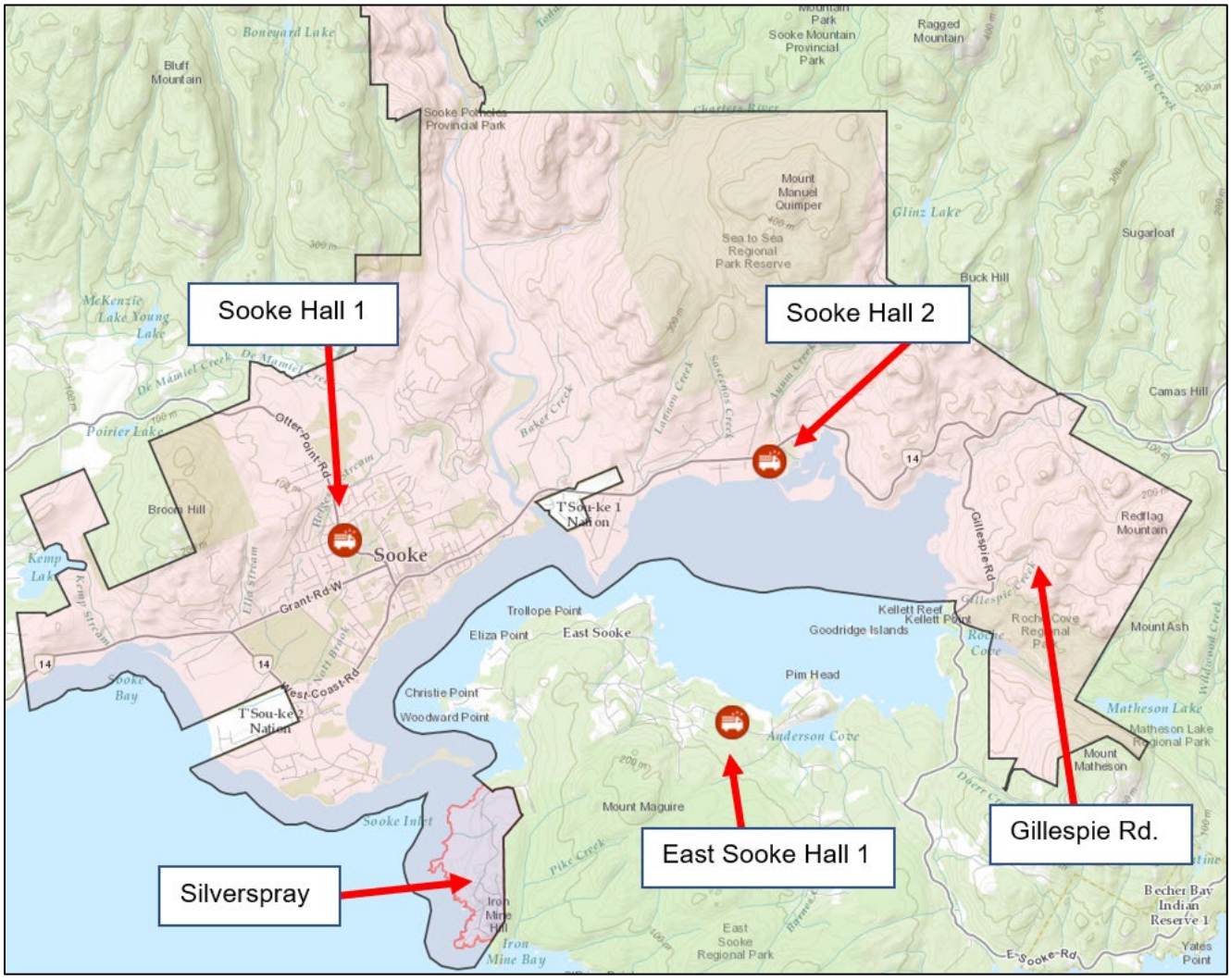

Figure 25: SFRD Response Areas

The District is divided into four primary geographical response zones: Hall 1; Hall 2; Gillespie Road; and Silver Spray. The area constituting the Hall 1 response zone accounts for 72.1% of all incidents, while the Hall 2 response zone accounts for 26.8% of the incidents, with the balance occurring in the Gillespie Road zone (0.4%), and Silver Spray zone (0.7%). Actual responses may come from a different hall, depending on the nature of the incident and time of day; or there may be a response to an incident from both halls (e.g., for structure fires). So, units from Hall 1 may respond to an incident in Silver Spray during daytime hours, rather than from Hall 2 (which is not staffed with any career members).

16.3.1 Incidents by Response Area: Sooke

The total number of incidents within Sooke by primary response area[89] are shown in Table 29.

Table 29: Responses within Sooke, 1 January 2017 to 19 July 2021 by Response Area.

Response Area	2017	2018	2019	2020	2021	Total
Sooke Hall 1	769	665	626	609	440	3,109
Sooke Hall 2	320	254	224	219	137	1,154
Silver Spray	6	7	4	8	4	29
Gillespie Road	9	7	2	1		19
Total	1,104	933	856	837	581	4,311

Responses to Silver Spray are complex because of its distance from the Sooke fire halls; it is more than 25 kilometres to Spirit Point from Hall 1, which is the only regularly staffed fire hall, and 18 kilometres from Hall 2. As a result, Sooke has contracted with the CRD for a primary response to Silver Spray from the ESVFD (an arrangement that was contemplated when the Silver Spray development was added to the District in 2004). Notwithstanding this agreement, the Department still responds to all calls in the Silver Spray area.

Most of the POC firefighters also reside closer to Hall 1 than to Hall 2, as shown in Figure 26 below. Total response time has to include the time it takes to assemble members at a hall. Drive time will then be determined by the type of apparatus responding: a lighter shorter vehicle will respond more quickly, while a large unit like a Tender or Ladder may require a longer time due to the road conditions. For responses to Silver Spray, the condition of roads from Gillespie Road west of Highway 14 would suggest a slower travel speed.

[89] The Department's response areas are defined in the CAD data and Gillespie Road and Silver Spray are tracked separately from that notionally established for Hall 1 and Hall 2. Gillespie Road and Silver Spray are both closer by distance to Sooke Hall 2 however this hall is not normally staffed, and the primary response is often from Hall 1.

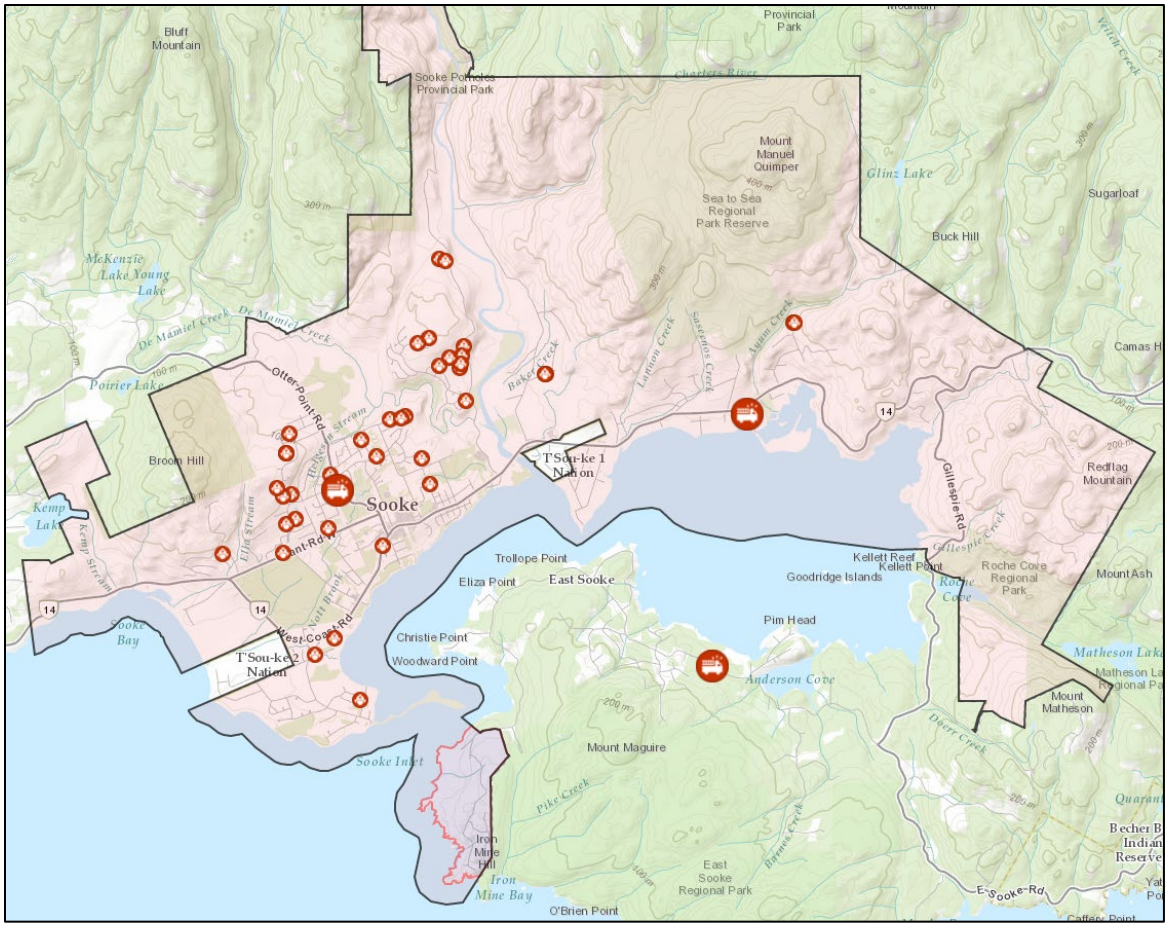

Figure 26: SFRD Volunteer Firefighter Locations

16.3.2 Incidents by Mutual Aid Area

The SFRD provides mutual aid for adjacent areas including Otter Point, East Sooke and Metchosin. There were 46 mutual aid responses between January 2017 and July 2021 as listed in Table 30.

Table 30: SFRD Mutual Aid Responses 1 January 2017 to 19 July 2021

Jurisdiction[90]	2017	2018	2019	2020	2021	Total
East Sooke			9	3	5	17
East Sooke (Gillespie Road)				1	1	2
East Sooke (Mount Matheson)		2		1		3
Metchosin			6		4	10
Metchosin (Sooke Road)			2	1		3
Otter Point			4	5	2	11
Total	0	2	21	11	12	46

[90] The "Jurisdiction" column includes multiple locations for East Sooke and Metchosin as these represent sub-units within the respective areas and are tracked this way in the dispatch data.

The largest number of these responses are for East Sooke (22), followed by Metchosin (13) and Otter Point (11). Summarized by year, 2019 had the highest number of mutual aid responses as shown in Figure 27.

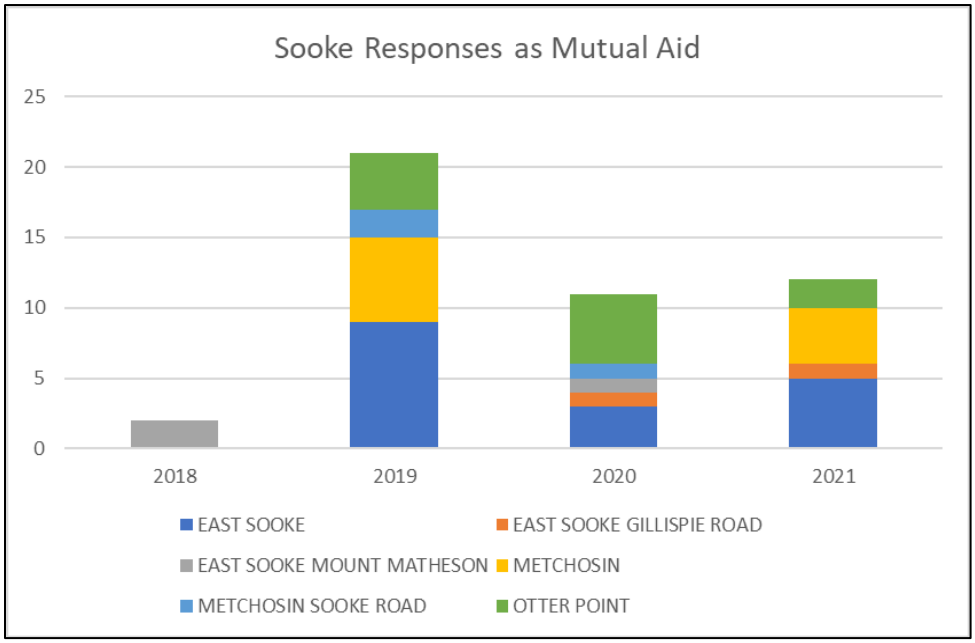

Figure 27: SFRD Mutual Aid Responses by Location and by Year

16.4 Response by Incident Type

The CAD system that tracks incidents uses a total of 51 incident types, several of which can be grouped for the purpose of analysis. These include the five medical type responses and six assistance categories. Once combined, this results in 28 general incident types which will be used for the analysis that follows, and as shown in Table 31.

Table 31: 51 CAD Incident Types → 28 General Incident Types

CAD Type	General Type
Aircraft - Crash	Aircraft Crash
Alarm Bells - CO	Alarms Ringing
Alarm Bells - Commercial	Alarms Ringing
Alarm Bells - Intrusion	Alarms Ringing
Alarm Bells - Residential	Alarms Ringing
Assistance - BCAS	Assistance
Assistance - Flooding	Assistance
Assistance - General Public	Assistance
Assistance - Misc Complaint	Assistance
Assistance - Public Works	Assistance
Assistance - RCMP	Assistance

CAD Type	General Type
Hydro - Fire	Hydro - Fire
Hydro - Lines Down	Hydro - Lines Down
Hydro - Tree on Lines	Hydro - Tree on Lines
Medical - A	FMR
Medical - B	FMR
Medical - C	FMR
Medical - D	FMR
Medical - E	FMR
MVI	MVI
Open Burn - Camp Fire	Open Burn - Camp Fire
Open Burn - General	Open Burn - General

CAD Type	General Type
Beach Fire	Beach Fire
Boat - Distress / Fire	Boat - Distress / Fire
Brush/Grass - Bark Mulch	Brush/Grass
Brush/Grass - Fire	Brush/Grass
Brush/Grass - Smoke Smell / Sighting	Brush/Grass
Community Event	Community Event
False Alarm Bells - CO	Alarms Ringing False
False Alarm Bells - Commercial	Alarms Ringing False
False Alarm Bells - Residential	Alarms Ringing False
Fire - Misc Fire	Fire Miscellaneous
HAZ MAT - Chemical / Unknown Spill / Leak	Hazmat
HAZ MAT - Chlorine	Hazmat
HAZ MAT - Natural Gas	Hazmat
HAZ MAT - Petroleum Spill / Fire	Hazmat
HAZ MAT - Propane	Hazmat

CAD Type	General Type
Rescue - Animal	Rescue - Animal
Rescue - Elevator	Rescue - Elevator
Rescue - Rope/High/Confined	Rescue - Rope
Rescue - Search	Rescue - Search
Rescue - Water/Ice / Drowning	Rescue - Water
Rubbish/Dumpster Fire	Rubbish/Dumpster Fire
SFComm - Smoke/Smell in Structure	Smell of Smoke
SFComm (Structure Fire Commercial)	Structure Fire
SFRes - Chimney	Chimney Fire
SFRes - Mobile Home/Trailer	Mobile Home/Trailer Fire
SFRes - Smoke/Smell in Structure	Smell of Smoke
SFRes (Structure Fire Residential)	Structure Fire
TEST CALL	TEST CALL
Vehicle Fire	Vehicle Fire

Responses by the Department from 2017 are summarized in Table 32. As noted, the 2021 data are for the year up to 19 July 2021.

Table 32: SFRD Responses by General Incident Type, 1 Jan 2017 to 19 July 2021.

General Incident Type	2017	2018	2019	2020	2021	Total
FMR	629	488	454	293	285	2,149
Assistance	95	93	102	123	71	484
Open Burn - General	85	74	63	99	37	358
Alarms Ringing	70	52	71	77	47	317
MVI	74	71	66	70	30	311
Brush/Grass	33	17	18	34	16	118
Hydro - Lines Down	4	13	11	39	15	82
Structure Fire	15	24	11	8	14	72
Open Burn - Camp Fire	15	17	10	15	9	66
Smell of Smoke	23	26	4	5	2	60
Hazmat	11	6	7	18	7	49
Hydro - Tree on Lines	3	9	9	13	8	42
Chimney Fire	3	7	5	8	8	31
Rescue - Rope	8	5	5	7	6	31
Fire Miscellaneous	5	7	2	8	7	29
Hydro - Fire	6	5		6	7	24

General Incident Type	2017	2018	2019	2020	2021	Total
Alarms Ringing False	7	1	5	1	2	16
Vehicle Fire	2	4	3	5	1	15
Beach Fire	5	2	2	2	2	13
Rescue - Animal	4	2	1	1	2	10
Rubbish/Dumpster Fire	3	1	3	1		8
Mobile Home/Trailer Fire		4	2			6
Boat - Distress / Fire		1	2	2		5
Aircraft Crash2	1	3				4
Community Event					4	4
Rescue - Water	2	1				3
Rescue - Elevator	1			2		3
Rescue - Search					1	1
Grand Total	1,104	933	856	837	581	4,311

16.4.1 All Incidents

The total number of incidents in each category and their percentage of total responses during the period being reviewed are summarized in Table 33.

Table 33: SFRD All Incident Occurrence by Percentage

General Types	Total	Percentage
FMR	2149	49.85%
Assistance	484	11.23%
Open Burn - General	358	8.30%
Alarms Ringing	317	7.35%
MVI	311	7.21%
Brush/Grass	118	2.74%
Hydro - Lines Down	82	1.90%
Structure Fire	72	1.67%
Open Burn - Camp Fire	66	1.53%
Smell of Smoke	60	1.39%
Hazmat	49	1.14%
Hydro - Tree on Lines	42	0.97%
Chimney Fire	31	0.72%
Rescue - Rope	31	0.72%
Fire Miscellaneous	29	0.67%
Hydro - Fire	24	0.56%
Alarms Ringing False	16	0.37%
Vehicle Fire	15	0.35%
Beach Fire	13	0.30%
Rescue - Animal	10	0.23%
Rubbish/Dumpster Fire	8	0.19%

General Types	Total	Percentage
Mobile Home/Trailer Fire	6	0.14%
Boat - Distress / Fire	5	0.12%
Aircraft Crash2	4	0.09%
Community Event	4	0.09%
Rescue - Water	3	0.07%
Rescue - Elevator	3	0.07%
Rescue - Search	1	0.02%
Total	4,311	100.00%

FMR incidents represent almost 50% of responses by the Department and as noted earlier these have been impacted by COVID-19 and BCEHS policy. BCEHS policy changes led to a significant decline in the number of FMR responses which in turn was reflected in the Department's total responses. This can be seen in Figure 28 which tracks all response by the Department within Sooke; the impact of the COVID-19 changes in May 2020 are very clear as is the return to more normal call volumes commencing in September 2020, as the pandemic policies were ended.

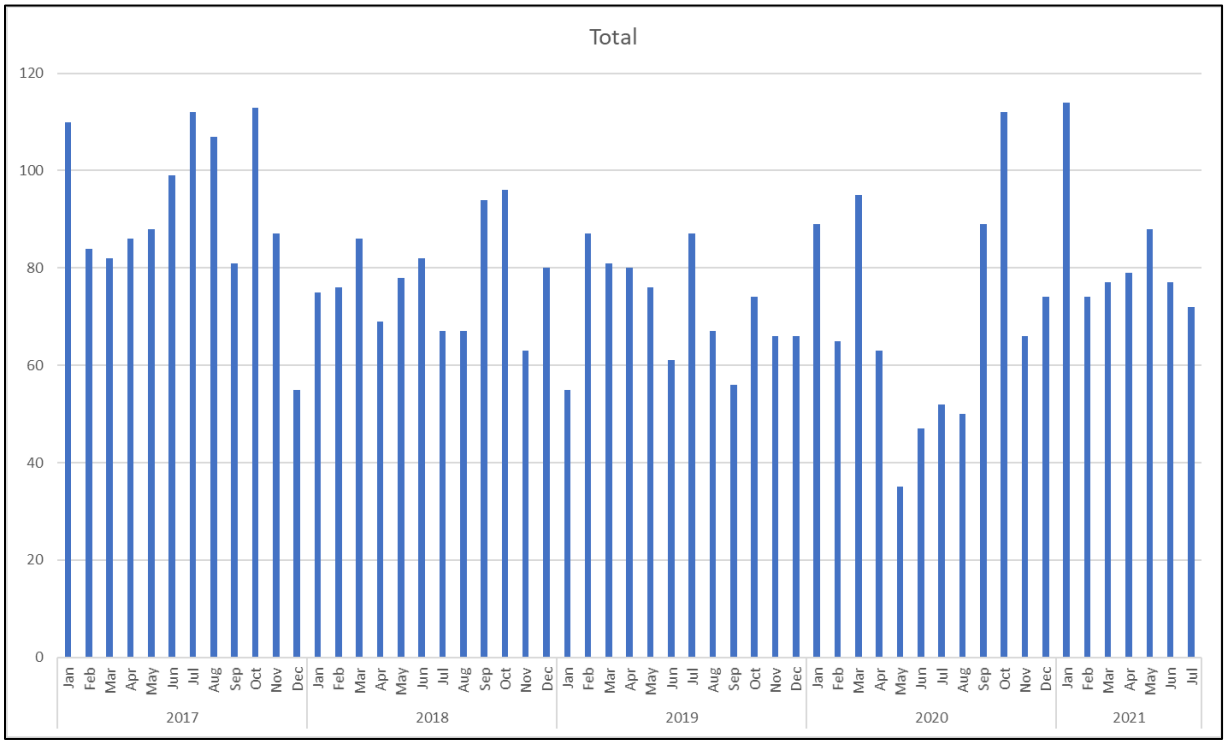

Figure 28: SFRD All Responses within Sooke by Month, 1 January 2017 to 19 July 2021.

In terms of FMR responses, Sooke like many jurisdictions, has seen these rapidly return to levels seen previously starting in Q4 of 2020 and continuing in 2021. One option to estimate the impact of the reduction and restoration of FMR incidents is to filter the data to show total call volume for the months January to July for the five years being reviewed. Figure 29 shows the total for each year to the end of June and viewed this way, incident volume appears to be approaching or even exceeding pre-COVID-19 levels.

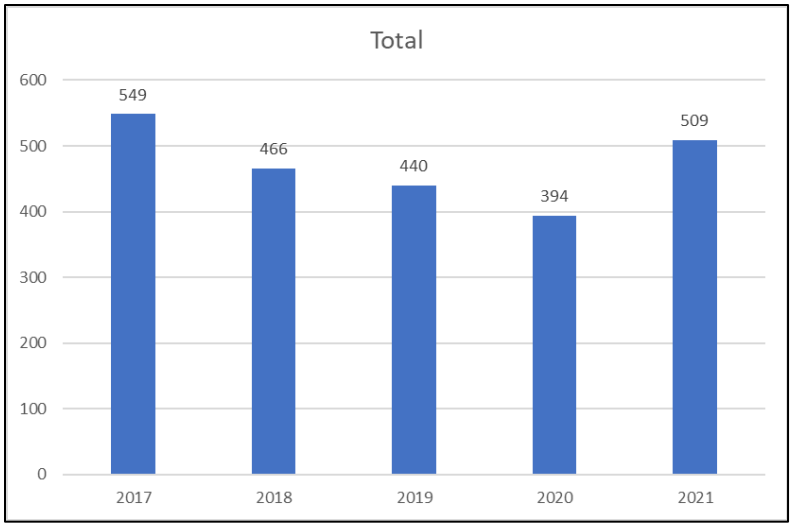

Figure 29: SFRD All Responses within Sooke - January to June, years 2017 to 2021

16.4.2 FMR

Using the approach from Figure 29, the total number of FMR responses can be filtered to illustrate the first six months of each year as shown in Figure 30. The general drop as a result of changes to the RAP after 2017 can be seen, as is the impact of the new BCEHS Clinical Response model (2019) followed by the pandemic restrictions in 2020. The call volume recovery in 2021 (which are data for only a partial year) shows a significant rebound in these call types, with that 2021 on track to exceed to 2017 totals.

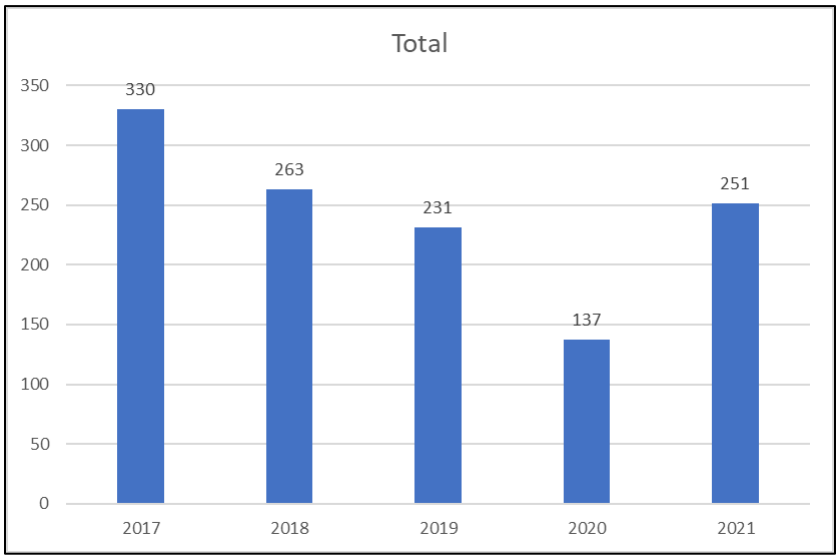

Figure 30: SFRD FMR Responses within Sooke - January to June, years 2017 to 2021

16.4.3 Assistance Responses

Requests for assistance are the second highest number of calls, comprising more than 11% of Department responses. These are illustrated in Figure 31 for the four complete years and are clearly increasing.

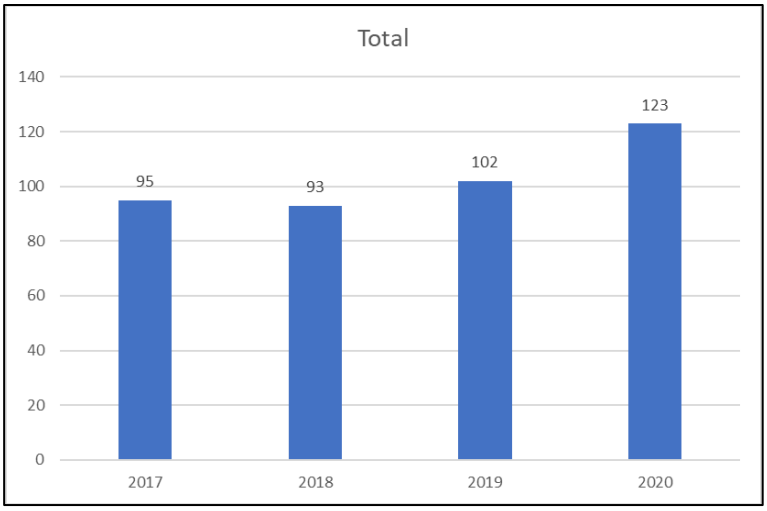

Figure 31: SFRD Response to Requests for Assistance within Sooke, 2017 to 2020.

16.4.4 Structure Fires

The incident type that requires the largest commitment of staff and apparatus by any fire department is for structure fires. For the Department, these calls result in all members being paged and a response by a majority if not all of the available equipment.

The dispatch categories include three relevant incident types: Structure Fire, Mobile Home Fire and Chimney Fire. Complete data are shown for the 2017 to 2020 period in Figure 32.

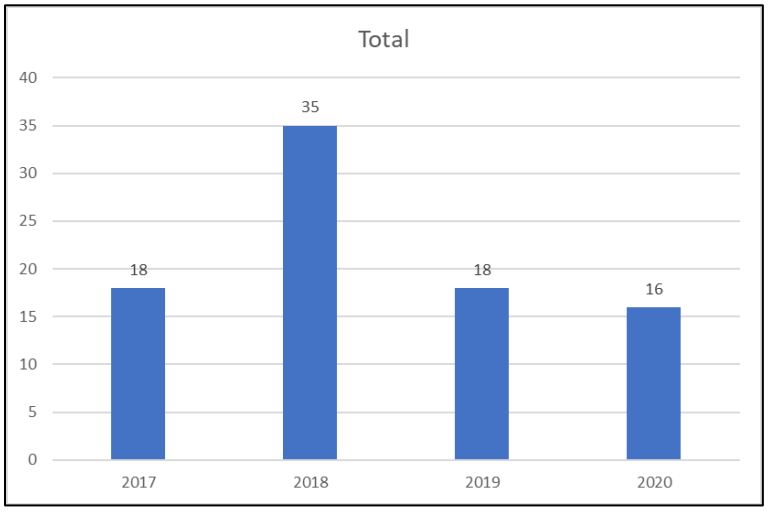

Figure 32: SFRD Structure Fires within Sooke, 2017 to 2020.

There was a spike in structure fire calls in 2018 (around double the other years), with the other three years being relatively consistent. However, 2021 data indicate another “spike” year. For the period of up 19 July 2021, a total of 19 structure fires had occurred. The 2021 data are compared to the comparable periods in the prior four years as shown in Figure 33. 2021 is running nearly 50% ahead of 2018:

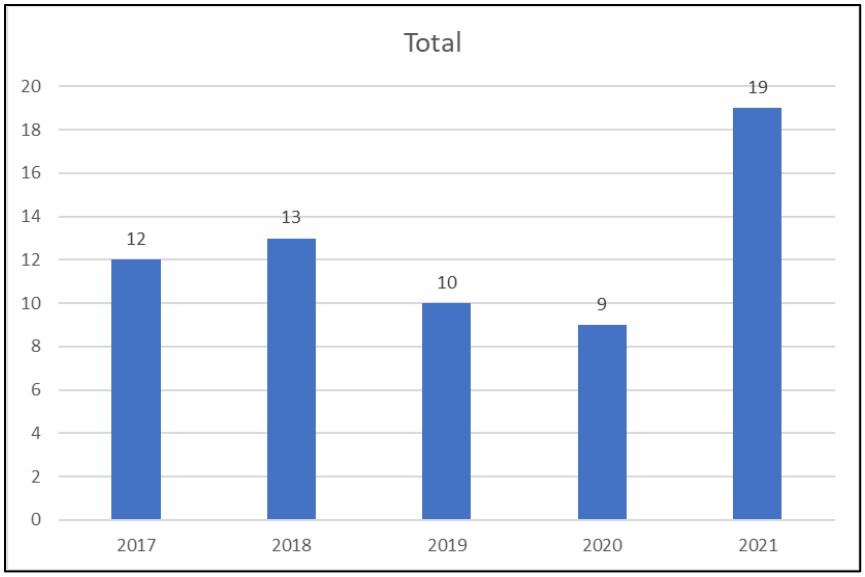

Figure 33: SFRD Structure Fires within Sooke, 2017 to 2021 (to 19 July each year).

16.4.5 Open Burning

Responses to Open Burning complaints are the third most frequent incident response for the Department. These are illustrated in Figure 34: after declining for the past two years, 2020 showed a significant increase in these responses.

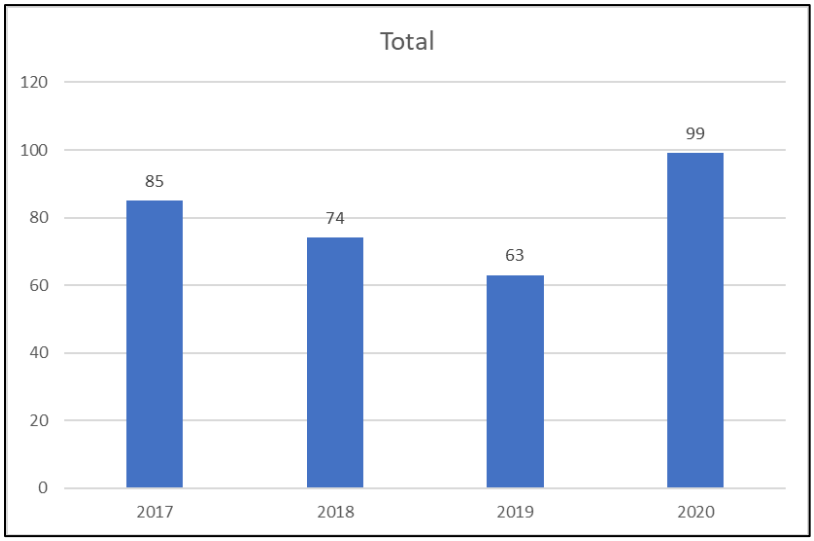

Figure 34: Open Burning complaint within Sooke, 2017 to 2020

16.4.6 Alarms Ringing

Response to Alarms Ringing (not false) is the fourth highest response type (Figure 35). There is no obvious trend in this call type, with 70 or more for three of the four years reviewed.

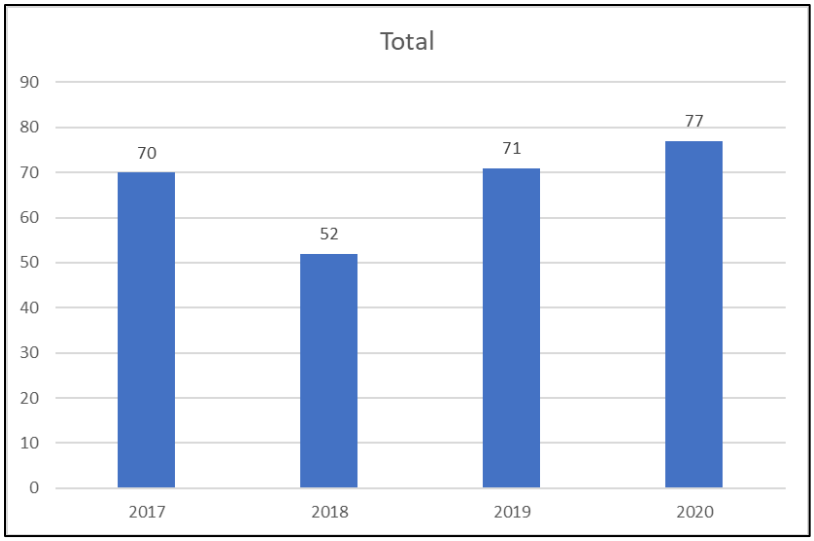

Figure 35: Alarms Ringing Responses within Sooke, 2017 to 2020.

16.5 Staffing for Structure Fires

The response data tracked in CAD show the total number of personnel attending for incidents, and distinguishes between POC members and career members (though the data do not show arrival times of each responding member). This information is helpful in clarifying how responses to incidents like structure fires by POC members vary by day of the week and hour of the day.

16.5.1 Day of the Week

The Department's POC member turn out to structure fires by day of the week, ordered by year, are summarized in Table 34. The data show that, by day of the week, the lowest turnout by POC members is mid-week. This is likely related to the fact that most POC firefighters are at work and unable to respond.

Table 34: POC Member Turnout to Fire Incidents within Sooke, 1 January 2017-19 July 2021, by Day of Week

Year	Sun	Mon	Tue	Wed	Thu	Fri	Sat	**Average**
2017	8	18	18			18		**15**
2018	30				16	29	29	**26**
2019	17	12	15		14	13	12	**14**
2020	11	8	10	0	2	10	15	**8**
2021	15		14	15	20	9	18	**15**
Average	**16**	**13**	**14**	**8**	**13**	**16**	**18**	

The average response is graphed in Figure 36 and clearly demonstrates the attendance by the volunteer firefighters is lowest mid-week and significantly higher on weekends.

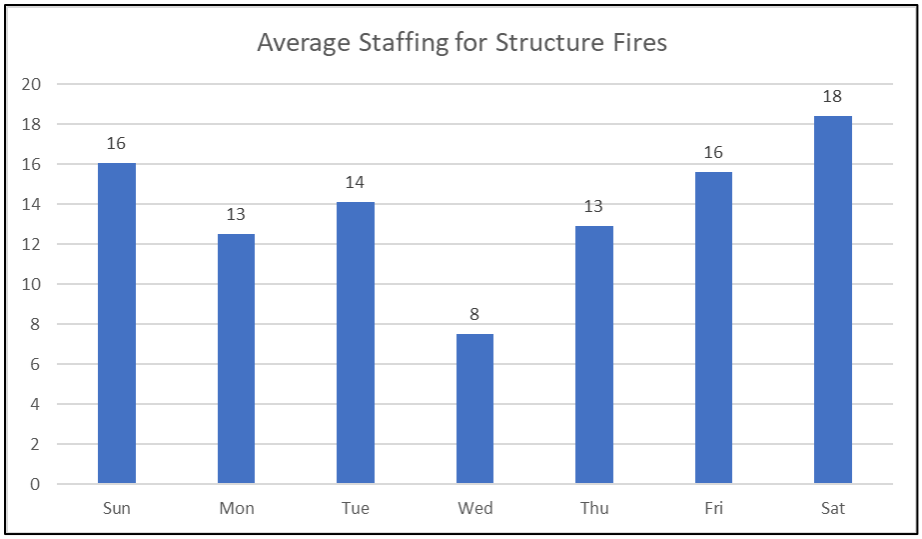

Figure 36: Average Turnout by POC Members for Structure Fires within Sooke by Day of Week

The data can also be displayed by year and this may suggest a decline in terms of response in recent years but given the small sample size this is probably not a reliable indicator, unlike day of the week.

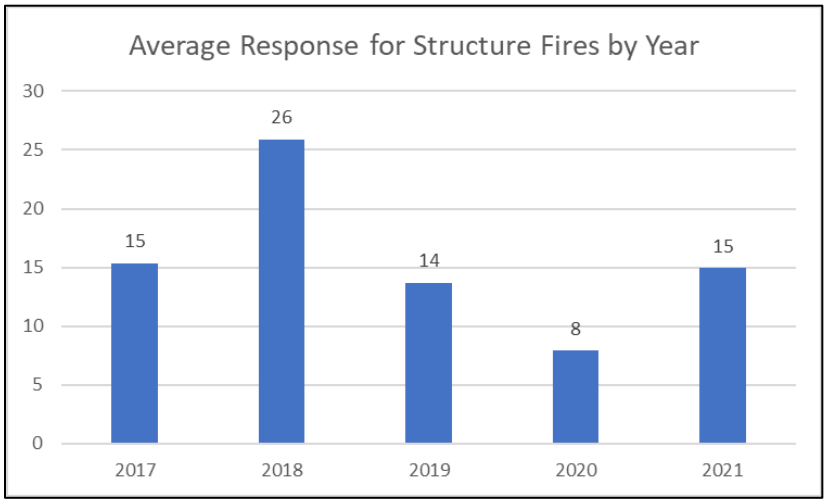

Figure 37: Average Turnout by POC Members for Structure Fires within Sooke by Year.

16.5.2 Hour of the Day

Response by hour of the day (Figure 38) is highest in the evening with the lowest average turnout occurring mid-day. As with the previous section hour of the day may not be a completely accurate predictor of response but it is reasonable given that a number of SFRD POC members are employed outside of the response area during normal business hours, or may not be able to leave work to respond to a call out.

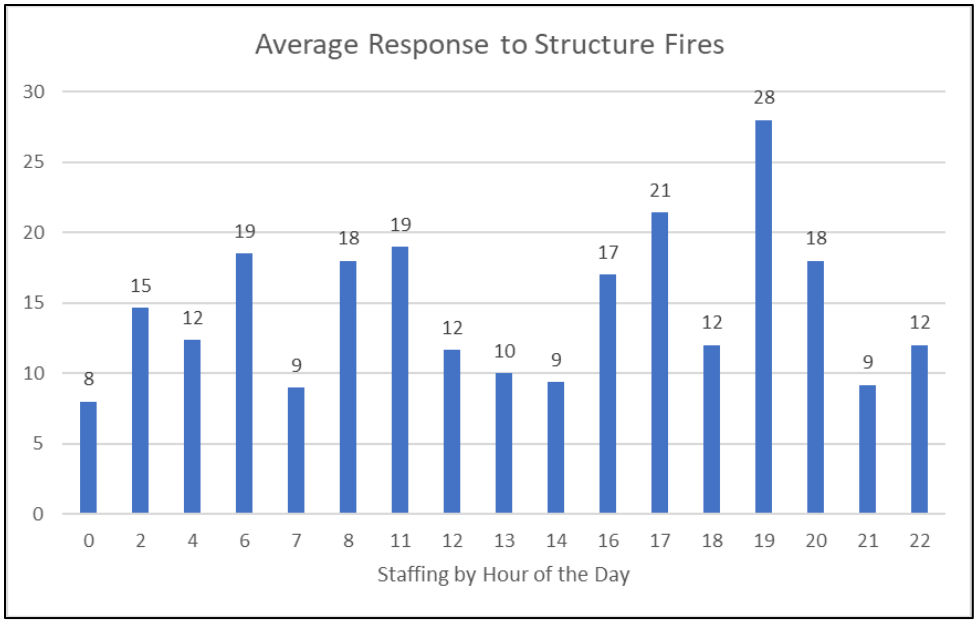

Figure 38: SFRD Average Turnout for Structure Fires within Sooke by Hour.

16.6 Summary

Over the period for which response data was available (1 January 2017 to 19 July 2021) the Department has seen dramatic changes in several incident types to which it responds. FMR responses dropped precipitously in early 2020 principally due to the effect of COVID-19 and changes made by BCEHS to its response policies, recovering starting in September 2020 and returning to more normal levels in the first half of 2021. On a monthly basis, the Department has its highest incident volume in October which is 40% higher than December. The busiest hours for the Department are 15:00 to 18:00; the hours with the lowest incident volume are 03:00 to 06:00.

The area protected by Hall 1 has 72% of all incidents, the remaining 28% are within the coverage area of Hall 2 including Gillespie Road and Silver Spray. That said, primary response to Silver Spray is provided under contract by East Sooke, although there may also be a from the Department depending on the incident type. For this area, the most immediate response by the Department will still likely be from Hall 1 for daytime calls, as it is the only staffed fire hall, however the distance is substantial. At 25 kilometres from Hall 1 to Spirit Point the travel time is estimated to be approximately 30 minutes.

16.7 Recommendations

Recommendation: The District should revise the Department's staffing model to provide firefighters at Hall 1, 24 hours a day, seven days a week to address the very long response times when the current career staff are not available.

17. Benchmark Survey

As part of the review, a benchmarking survey was circulated to six other fire departments. The results were collected and then tabulated to understand how the Department compared to a number of its peers. A sample of the questionnaire is found at Appendix 5. The fire departments to be surveyed were discussed with the Fire Chief and the following were considered reasonable comparators in relation to population served in the core area, number of firefighters, and number of fire halls:

- Central Saanich;
- View Royal;
- Powell River;
- Saltspring Island;
- Squamish; and
- Colwood.

17.1 Population Served

Table 35 below provides the population detail for the fire departments surveyed. The core population for each jurisdiction, obtained from the 2021 census,[91] ranged from 11,575 to 23,819 with the average being 16,220. Sooke had the second fastest growth rate over the period 2016 to 2021. Growth and development are principal drivers of in emergency service responses.

Table 35: Population Served

Benchmark Department	Core Population	Growth 2016 - 2021
Central Saanich	17,385	3.4%
View Royal	11,575	11.2%
Powell River	13,943	6%
Saltspring Island	11,635	10.2%
Squamish	23,819	22.2%
Colwood	18,961	12.5%
Average	**16,220**	
Sooke	15,086	16.0%

[91] Statistics Canada, 2021 Census of Population.

The total core population served is illustrated in Figure 39 with the SFRD being slightly less than the average for the group.

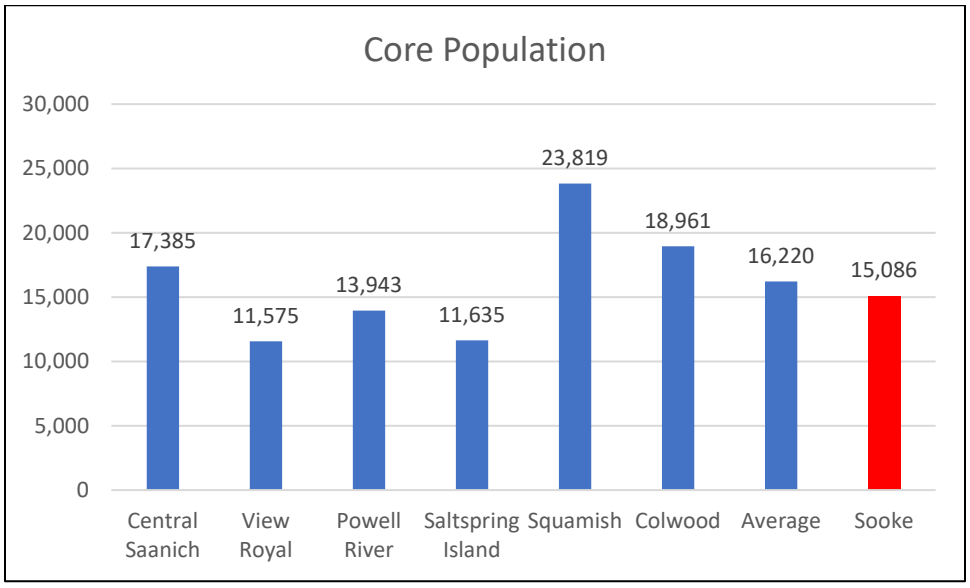

Figure 39: Benchmark Survey - Core Population Served

17.2 Response Areas

The fire protection response areas range in size from a low of 17.7 square kilometres in the case of Colwood to 150 square kilometres for Saltspring Island, with the average area being 62.3 square kilometres. It should be noted that two departments have relatively large response areas (Saltspring Island and Squamish), while the other four comparator departments have much small service areas. The size of each department's response zone including service areas is set out in Table 36.

Table 36: Size of Response Zone

Benchmark Department	Service Area (Square Kilometres)
Central Saanich	47.0
View Royal	18.0
Powell River	41.3
Saltspring Island	150.0
Squamish	100.0
Colwood	17.7
Average	**62.3**
Sooke	84.9

The fire protection area served is graphed in Figure 40. The Department's fire service area is the third largest in the group and is complex considering Silver Spray.

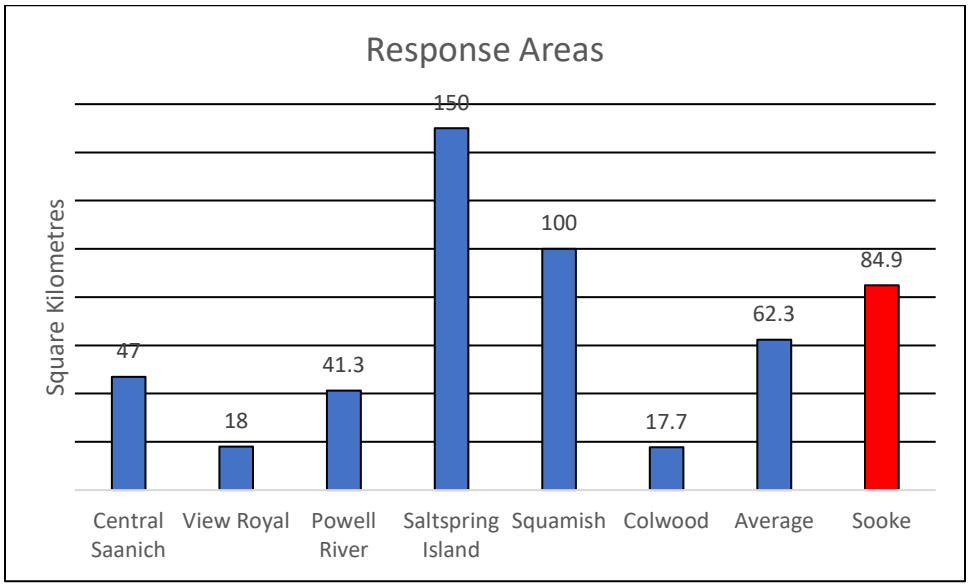

Figure 40: Benchmark Survey - Size of Response Area

17.3 Hazards

The types of natural hazards potentially impacting the benchmark department communities relate mostly to earthquake or wind events.

Overall, the SFRD appears to have a similar level of natural hazard risk and a similar industrial hazards risk as it relates to hazardous materials storage.

17.4 Fire Halls and Staffing

View Royal and Colwood both operate from a single fire hall, Saltspring Island has with three halls, and Central Saanich, Powell River, Squamish and Sooke operate from two fire halls. All the departments use a composite staffing model. Table 37 sets out the total number of career and volunteer/paid-on-call firefighters and the population served per firefighter. The staffing figures are for operational response personnel and exclude non-suppression positions such as prevention, mechanics and administrative support.

Table 37: Population to Firefighter Ratio

Benchmark Department	Core Population	# of Career FF	# of POC FF	Total # of FF	Population/ FF
Central Saanich	17,385	8	34	42	414
View Royal	11,575	7	25	32	362
Powell River	13,943	17	26	43	324
Saltspring Island	11,635	11	45	56	208

Benchmark Department	Core Population	# of Career FF	# of POC FF	Total # of FF	Population/ FF
Squamish	23,819	11	50	61	390
Colwood	18,961	10	30	40	474
Average	**16,220**	**10.6**	**35**	**45.6**	**362**
Sooke	15,086	8	25	33	457

These data are illustrated in Figure 41 which shows that for Sooke, the population per firefighter is significantly above the average of the benchmark group.

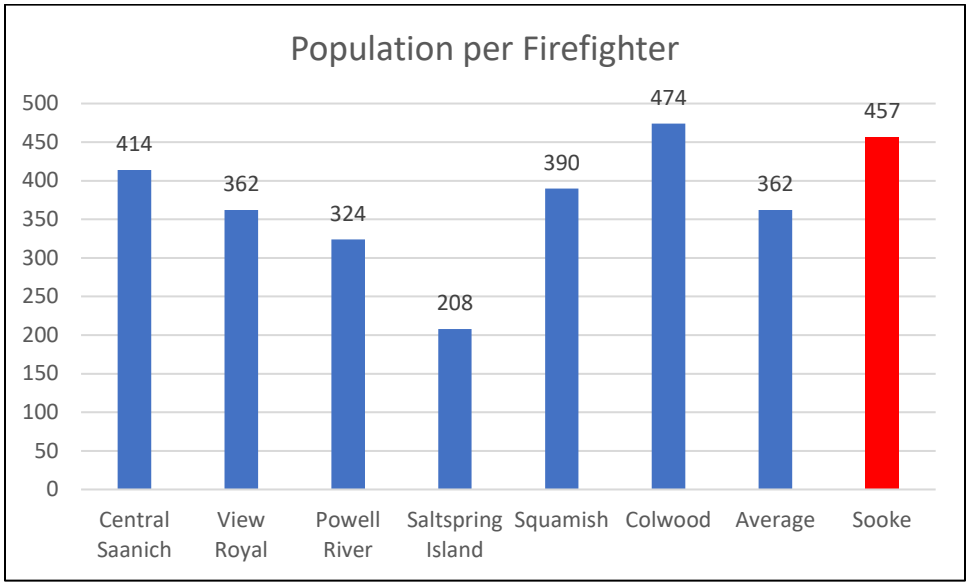

Figure 41: : Benchmark Survey - Residents Protected per Firefighter

17.5 Level of Service

Each of the benchmark departments has declared its level of service as “Full Service”.

17.6 Operating Budgets

The annual operating budgets for the previous and current year indicate that SFRD was approximately 9% lower than the benchmark average in both 2020 and 2021.

Table 38: Operating Budgets

Benchmark Department	2020	2021
Central Saanich	$1,938,650	$2,116,300
View Royal	$1,500,637	$1,726,673
Powell River	$3,336,574	$3,339,526
Saltspring Island	$3,490,000	$3,830,150
Squamish	$2,150,000	$2,200,000
Colwood	$2,005,024	$2,193,500
Average	**$2,403,481**	**$2,567,692**
Sooke	$2,185,858	$2,324,450

The 2020 and 2021 budgets for the benchmark departments are illustrated in Figure 42 and Figure 43 below

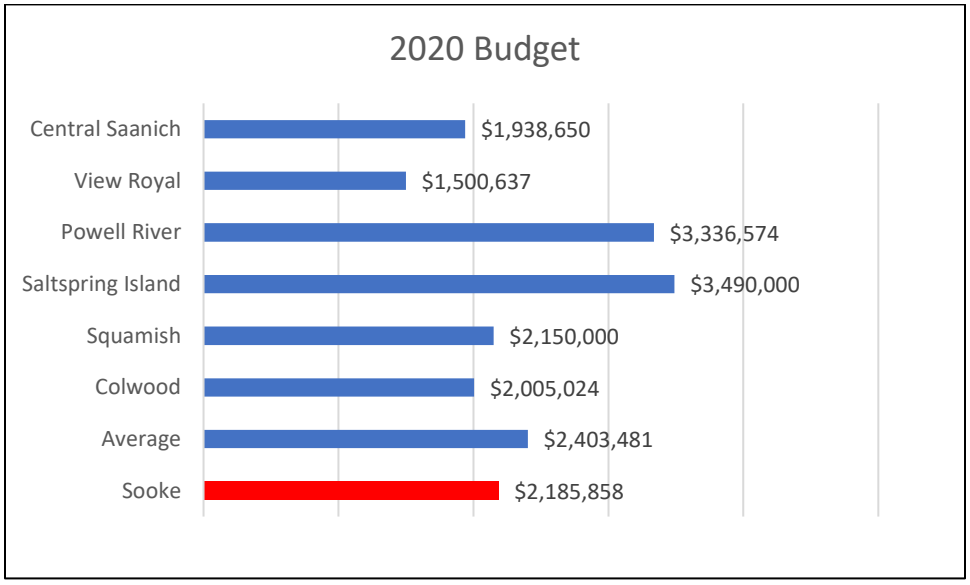

Figure 42: Benchmark Survey - 2020 Operating Budget

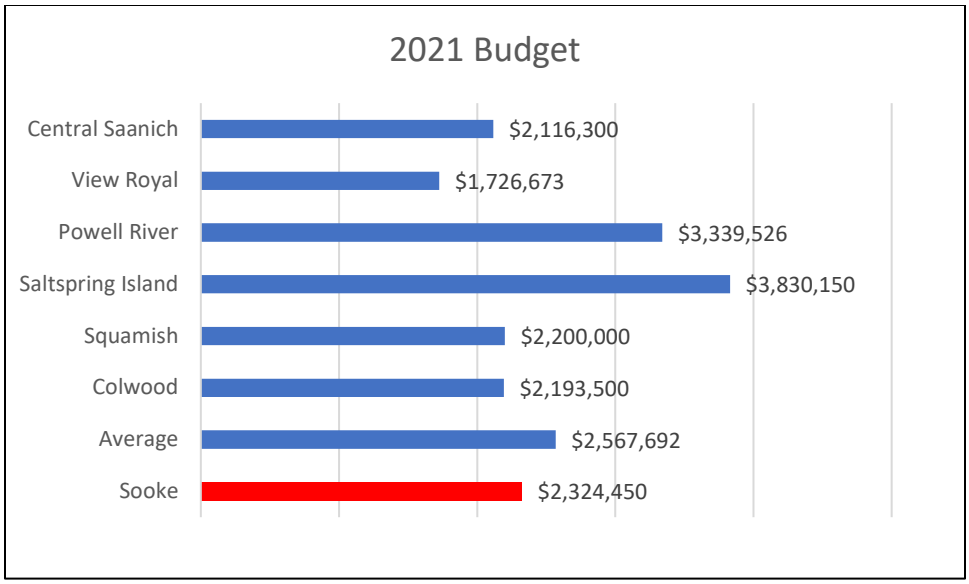

Figure 43: Benchmark Survey - 2021 Operating Budget

17.7 Apparatus

The number and types of apparatus in each department are impacted, in part, by the type of incident responses, size of service area and number of fire halls. The SFRD has a comparable set of apparatus with respect to the benchmark departments based on its number of halls and service area risks.

Table 39: Benchmark Survey - Apparatus

Benchmark Department	Engine	Aerial	Rescue	Bush	Tanker	Hazmat
Central Saanich	3	1	1	1	1	1[92]
View Royal	2	1	1	1	0	0
Powell River	4	1	0	1	0	0
Saltspring Island	3	0	1	1	4	1[93]
Squamish	3	1	1	1	0	0
Colwood	2	1	1	1	1	0
Sooke	3	1	0	1	1	0

[92] The Hazmat unit is a regional team responding from Central Saanich.

[93] Trailer unit versus apparatus.

17.8 Fire Prevention

For each community, the number of inspectable premises is identified, along with the number of annual inspections (based upon the frequency schedule in use). Similarly, the number of required pre-incident plans and completions are also shown to provide a measure of workload related to the provision of fire prevention services. SFRD has under the average number of inspectable premises and annual inspections that are required.

Table 40: Inspections / Preplans

Benchmark Department	Inspectable Premises	Annual Inspections	Preplans Completed	Preplans Outstanding
Central Saanich	800	800	unknown	unknown
View Royal	340	425	75	0
Powell River	700	710	100	100[94]
Saltspring Island	410	410[95]	70	50
Squamish	1100	650	unknown	unknown
Colwood	428	428	115	325
Average	**630**	**571**	n/a	n/a
Sooke	539	381	79	15

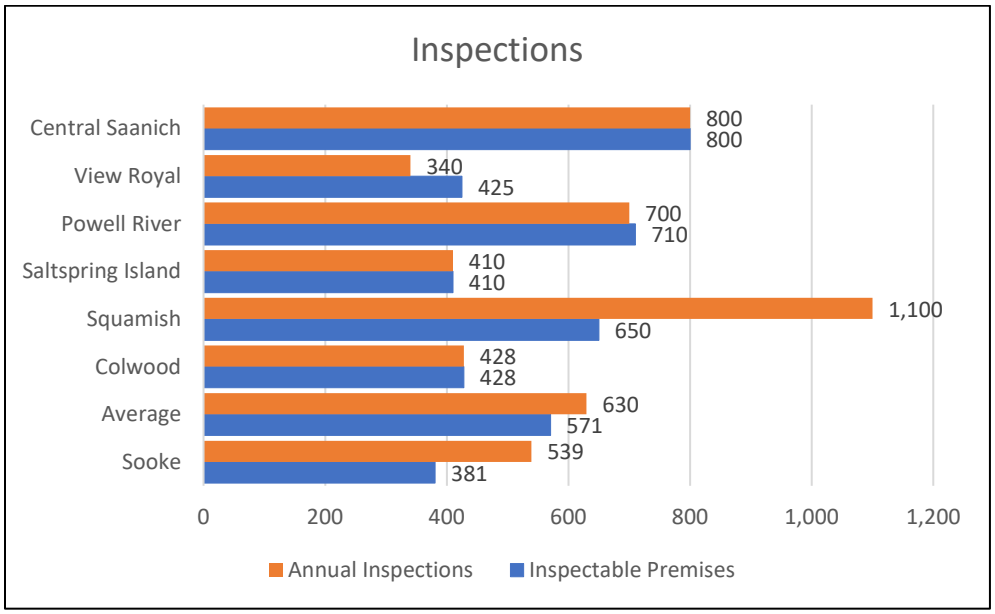

Figure 44: Benchmark Survey - Inspectable Premises and Annual Inspections

[94] All require updating.

[95] Target only, no requirement to inspect.

17.9 Calls for Service

The total calls for service in 2020 are found in Table 41, along with a further breakdown by three specific call types. The Department's call volume in 2020 was somewhat above the benchmark average, and the Department's responses to Medical, Non-Emergency and Road Rescue also exceeded the average for the group.

Table 41: Department Responses, 2020

Benchmark Department	Total Calls	Medical Responses	Non-Emergency	Road Rescue*
Central Saanich	682	300	14	64
View Royal	873	420	113	96
Powell River	689	324	153	41
Saltspring Island	674	151	191	37
Squamish	694	170	33	89
Colwood	667	212	144	48
Average	**713**	**263**	**108**	**63**
Sooke	837	293	166	70

**Includes in and out of jurisdiction responses*

The changes to medical response protocols due to COVID-19 resulted in a decline in medical calls for all departments in 2020, although for most departments medical calls still constituted more than half of their total responses. Some of the benchmark departments also reported an unusually high number of non-emergency calls. A comparison that excludes medical and non-emergency responses is set out in Table 42.

Table 42: Total Responses Non-FMR, 2020

Benchmark Department	Total Calls	Total Medical and Non-Emergency	Total Emergency (non-FMR)
Central Saanich	682	314	368
View Royal	873	533	340
Powell River	689	477	212
Saltspring Island	674	342	332
Squamish	694	203	491
Colwood	667	356	311
Average	**713**	**371**	**342**
Sooke	837	459	378

Figure 45 that follows shows total emergency responses minus FMR and measured this way SFRD responses are below the average for the group.

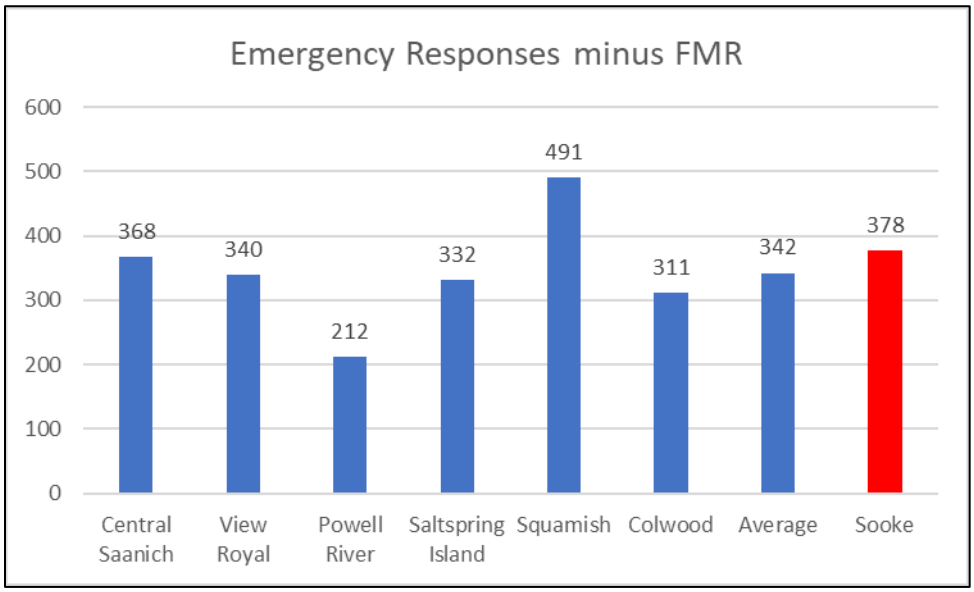

Figure 45: Total Emergency Responses minus FMR, 2020

17.10 Mutual / Automatic Aid and Service Agreements

Table 43 shows the mutual and automatic aid arrangements in place for the benchmark departments. It should be noted that, Saltspring Island only receives volunteer support from neighbouring Gulf Island departments.

Table 43: Aid Agreements

Benchmark Department	Mutual Aid	Automatic Aid[96]
Sooke	3 Composite 2 Volunteer	2 Composite 1 Volunteer
Central Saanich	2 Composite 1 Career	2 Composite 1 Career
View Royal	2 Composite 1 Volunteer 1 Career	2 Composite
Powell River	5 Volunteer	1 Volunteer
Saltspring Island	Volunteer staffing only	0
Squamish	1 Composite	0
Colwood	2 Composite 2 Volunteer 1 Career	2 Composite

Table 44 indicates where fire protection is provided outside of a department's normal boundaries under a service agreement.

[96] Some automatic aid agreements are only for specified responses or areas

Table 44: Fire Service Agreements

Benchmark Department	Service Client
Sooke	1 First Nation + CRD
Central Saanich	2 First Nations
View Royal	2 First Nations
Powell River	n/a
Saltspring Island	n/a
Squamish	1 First Nation
Colwood	n/a

17.11 Fire Underwriter Survey

The ratings from the most recently completed (or updated) Fire Underwriter Surveys for the benchmark departments are shown in Table 45, which shows the Dwelling Protection Grade (DPG) and the Public Fire Protection Classification (PFPC) for each department. These two grades are discussed in greater detail in the section of this report that examines the Department's Fire Underwriters' review.

Note that the Fire Underwriters will treat as unprotected any residential properties which are more than eight kilometres from a fire hall, and any commercial, industrial or multi-family properties (collectively, "Commercial Properties) which are more than five kilometres from a fire hall.

The rating will also vary if a department's fire protection area has portions of it which lack hydrants (or where hydrants are further from the properties in question than permitted by the Fire Underwriters' standards – which is 300 metres under the DPG rating and 150 metres under the PFPC rating). Where such split ratings apply, they are duly noted.

Departments with larger fire protection areas (i.e. Powell River, Sooke) have portions of their protection areas which may be more than the prescribed distance from the fire hall (and so are treated as unprotected) or are more than the prescribed distance from a fire hydrant – or lack fire hydrants altogether, resulting in lower ratings for the affected residential and Commercial Properties. Compared with the benchmark group, the Department has the least favourable PFPC rating at 6 and four out of the six have more favourable DPG ratings for areas with hydrants.

Table 45: Fire Underwriter Survey Grades

Benchmark Department	Date of Report	DPG		PFPC	
		Hydrants	No Hydrants	Within 150 m	Not within 150 m
Sooke	2011	3A	3BS	6	9/10
Central Saanich	2020	2	3BS	3	unknown

Benchmark Department	Date of Report	DPG		PFPC	
		Hydrants	No Hydrants	Within 150 m	Not within 150 m
View Royal	2019	1	n/a	3	n/a
Powell River	2010	2[97]	n/a	5	9
Saltspring Island	2015	3A/3B	3BS	6	n/a
Squamish	2008	2	n/a	5	n/a
Colwood	2009	3A/3B	n/a	5	n/a

* *Distances in metres (m) are from hydrants. "n/a" means not applicable.*

[97] Dependent upon distances to hydrants/firehalls, the rating varies between 2, 3A, 3B, 4

Appendix 1: Defined Terms and Acronyms

Term/Acronym	Definition
2010 OCP	District of Sooke, *Official Community Plan, 2010, Bylaw No. 400*
AHJ	Authority Having Jurisdiction
BCEHS	British Columbia Emergency Health Services
BCEMS	British Columbia Emergency Management System
BFF	Basic Fire Flow
Bylaw No. 137	*Emergency Program Bylaw, 2003*
Bylaw No. 239	*Silver Spray Fire Protection Local Area Service Bylaw, 2006*
Bylaw No. 292	*Fire Protection Services Bylaw, 2007*
CAD	Computer Aided Dispatch
Coroner's Report	*BC Coroner's Judgement of Inquiry into the Death of Chad Schapansky*, 2 February 2006
CRD	Capital Regional District
Department	Sooke Fire Rescue Department
District	District of Sooke
DMA	Dave Mitchell & Associates Ltd.
DMAA	Disaster Mutual Aid Agreement
DPG	Dwelling Protection Grade
Draft OCP	District of Sooke, *Official Community Plan, Schedule "A"*, Draft, August 2021
EIM	Emergency Incident Management
EMBC	Emergency Management BC
EMS	Emergency Medical Services
EOC	Emergency Operations Centre
ESS	Emergency Social Services
ESVFD	East Sooke Volunteer Fire Department
FIST	Fire Incident Support Team
FMR	First Medical Responder
FF-I and FF-II	Firefighter I, Firefighter II
FO-I and FO-II	Fire Officer I, Fire Officer II
FUS	Fire Underwriters' Survey
Hazmat	Hazardous Materials
HRVA	Hazard, Risk and Vulnerability Assessment

Term/Acronym	Definition
ICS	Incident Command System
IDLH	Immediately Dangerous to Life and Health
IGPM	Imperial Gallons Per Minute
ISO	Incident Safety Officer
JIBC	Justice Institute of BC
JPR	Job Performance Requirement
LAFC	Local Assistant to the Fire Commissioner
NFPA	National Fire Protection Association
OFC	Office of the Fire Commissioner
OG	Operational Guideline
OH&S	Occupational Health and Safety
OH&S Regulation	*Occupational Health and Safety Regulation*, B.C. Reg. 296/97
PFPC	Public Fire Protection Classification
Playbook	*British Columbia Fire Service Minimum Training Standards: Structure Firefighters – Competency and Training Playbook* (September 2014; second edition – May 2015) (the "Playbook").
POC	Paid-on-Call
PPE	Personal Protective Equipment
RAP	Response Allocation Protocol
Regional District	Capital Regional District
RIT	Rapid Intervention Team
SCBA	Self-Contained Breathing Apparatus
SERG	Sooke Emergency Radio Group
SFRD	Sooke Fire Rescue Department
Sooke	District of Sooke
STSS	Superior Tanker Shuttle Service
TO	Captain/Training Officer
TFN	T'sou-ke First Nation
WCA	*Workers Compensation Act* (B.C.)

Appendix 2: NFPA Standards

The following is a list of the referenced NFPA Standards, the date of the current edition, and a brief description of the standard. [98]

NFPA 472: *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents*, 2018

This standard shall identify the minimum levels of competence required by responders to emergencies involving hazardous materials/weapons of mass destruction (WMD).

NFPA 1001: *Standard for Fire Fighter Professional Qualifications*, 2019

This standard identifies the minimum job performance requirements (JPRs) for career and volunteer fire fighters whose duties are primarily structural in nature.

NFPA 1002: *Standard for Fire Apparatus Driver/Operator Professional Qualifications*, 2017

This standard identifies the minimum job performance requirements (JPRs) for career and volunteer fire fighters and fire brigade personnel who drive and operate fire apparatus.

NFPA 1006: *Standard for Technical Rescue Personnel Professional Qualifications*, 2021

This standard identifies the minimum job performance requirements (JPRs) for fire service and other emergency response personnel who perform technical rescue operations.

NFPA 1021: *Standard for Fire Officer Professional Qualifications*, 2020

This standard identifies the minimum job performance requirements (JPRs) for fire officer.

NFPA 1031: *Standard for Professional Qualifications for Fire Inspector and Plan Examiner*, 2014

This standard identifies the minimum job performance requirements (JPRs) for fire inspectors and plan examiners.

NFPA 1033: *Standard for Professional Qualifications for Fire Investigator*, 2014

This standard facilitates safe, accurate investigations by specifying the job performance requirements (JPRs) necessary to perform as a fire investigator in both the private and public sectors.

[98] Source: https://www.nfpa.org/

NFPA 1035: *Standard on Fire and Life Safety Educator, Public Information Officer, Youth Firesetter Intervention Specialist and Youth Firesetter Program Manager Professional Qualifications*, 2015

This standard identifies the minimum job performance requirements (JPRs) for public fire and life safety educators, public information officers, youth firesetter intervention specialists, and youth firesetter program managers.

NFPA 1041: *Standard for Fire and Emergency Services Instructor Professional Qualifications*, 2019

This standard identifies the minimum job performance requirements (JPRs) for fire service instructors.

NFPA 1072: *Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications*, 2017

This Standard identifies the minimum job performance requirements (JPRs) for Hazardous Materials/Weapons of Mass Destruction emergency response personnel.

NFPA 1407: *Standard for Training Fire Service Rapid Intervention Crews*, 2020

This standard specifies the basic training procedures for fire service personnel to conduct fire fighter rapid intervention operations so as to promote fire fighter safety and survival.

NFPA 1500: *Standard on Fire Department Occupational Safety, Health, and Wellness Program*, 2021

This standard specifies the minimum requirements for an occupational safety and health program for fire departments or organizations that provide rescue, fire suppression, emergency medical services, hazardous materials mitigation, special operations, and other emergency services.

NFPA 1521: *Standard for Fire Department Safety Officer Professional Qualifications*, 2020

This standard identifies the minimum job performance requirements (JPRs) necessary to perform the duties as a fire department health and safety officer and a fire department incident safety officer.

NFPA 1710: *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*, 2020

This standard specifies requirements for effective and efficient organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by career fire departments to protect citizens and the occupational safety and health of fire department employees.

NFPA 1901: *Standard for Automotive Fire Apparatus*, 2016

This standard defines the requirements for new automotive fire apparatus and trailers designed to be used under emergency conditions to transport personnel and equipment and to support the suppression of fires and mitigation of other hazardous situations.

Appendix 3: BC Coroner's Judgement of Inquiry into the Death of Chad Schapansky

The following is the Coroner's Report with regard to the death of Clearwater firefighter Chad Schapansky on 29 March 2004.

BRITISH COLUMBIA

May 30, 2006

British Columbia Fire Service

Enclosed is the BC Coroner's Service Judgement of Inquiry into the death of fire fighter Chad Schapansky. The Chief Coroner recommended that the Office of the Fire Commissioner provide a copy of the Judgement to all volunteer fire departments in British Columbia.

The Coroners mandate is to investigate all sudden, unexpected, unexplained or unattended deaths.

The role of the Coroner is a fact-finding one, not a fault finding one.

The Chief Coroner directed the Office of the Fire Commissioner to help prevent a death of a similar nature from occurring again.

Meetings will be held with the UBCM and employers of volunteer fire departments in British Columbia (Districts, Municipalities and Regional Districts) along with members of the Fire Services Liaison Group to discuss measures to initiate and develop a process for the inspection and audit by employers of their volunteer fire departments' equipment, level of training and operational guidelines.

Sincerely,

E. David Hodgins
Assistant Deputy Minister
Fire Commissioner

Ministry of
Public Safety and
Solicitor General

Office of the
Fire Commissioner

Mailing Address:
PO BOX 9491 STN PROV GOVT
Victoria BC V8W 9N7

Location Address:
1-800 Johnson Street
Telephone: 250 356-9000
Toll Free: 1-888-988-9488
Facsimile: 250 356-9019

Ministry of Public Safety and Solicitor General

BC Coroners Service

Case No.: 2004:565:0011

Police File: 2004:443

Police Department: Clearwater RCMP

JUDGEMENT OF INQUIRY

INTO THE DEATH OF

SCHAPANSKY	CHAD JERRY
SURNAME	GIVEN NAMES

OF

CLEARWATER, BRITISH COLUMBIA

TOWNSHIP OF RESIDENCE

I, John A. Latimer, a Coroner in the Province of British Columbia, have inquired into the death of the above named, which was reported to me on the 29th day of March, 2004, and as a result of such inquiry have determined the following facts:

Gender:	☒ MALE ☐ FEMALE	Native:	☐ YES ☒ NO
Age:	23 years	Date of Birth:	21 JANUARY, 1981
Premise/Place of Death:	RESTAURANT, CLEARWATER, BC	Estimated Date of Death:	29 MARCH, 2004
Township of Injury/Illness:	CLEARWATER, BC	Estimated Time of Death:	0600 HOURS
Injury/Illness Premise:	AS ABOVE	Date and Time of Injury:	29 MARCH 2004 0500 HOURS
Identification Method:	☒ VISUAL: HOSPITAL CO-ORDINATOR	☐ Other:	
Body Released to:	KAMLOOPS FUNERAL HOME, KAMLOOPS, BC	Date:	31 MARCH, 2004
POST MORTEM EXAMINATION:	☒ FULL ☐ EXTERNAL ☐ NONE	Date:	31 MARCH, 2004
Conducted by:	DR. J.W.M. STEPHEN, FORENSIC PATHOLOGIST, ROYAL INLAND HOSPITAL, KAMLOOPS, BC		
TOXICOLOGY EXAMINATION:	☒ YES ☐ NO	Date:	21 APRIL, 2004
Conducted by:	PROVINCIAL TOXICOLOGY CENTRE, PORT COQUITLAM, BC		
Toxicology Findings:	Blood: Carboxyhemoglobin - 55% Blood: No Drugs or Alcohol Detected		

MEDICAL CAUSE OF DEATH

(1) Immediate Cause of Death: a) Smoke Inhalation

DUE TO OR AS A CONSEQUENCE OF

Antecedent Cause if any: b) Restaurant Fire

DUE TO OR AS A CONSEQUENCE OF

Giving rise to the immediate cause (a) above, stating underlying cause last. c)

(2) Other Significant Conditions Contributing to Death:

BY WHAT MEANS: Mr. Schapansky was a volunteer fire fighter who died while fighting a fire in a restaurant.

CLASSIFICATION OF THE EVENT: ☒ ACCIDENTAL ☐ HOMICIDE ☐ NATURAL ☐ SUICIDE ☐ UNDETERMINED

Date Signed: 2 February 2006

J. A. Latimer

John A. Latimer, Coroner

JUDGEMENT OF INQUIRY

INTO THE DEATH OF

SCHAPANSKY	CHAD JERRY
SURNAME	GIVEN NAMES

SUMMARY OF EVENTS

On March 29, 2004 at approximately 0625 hours, the body of a Clearwater Volunteer Fire Fighter, identified as Chad Jerry Schapansky, was found inside a burning building in Clearwater. Mr. Schapansky was removed from the building and taken to the Clearwater Hospital where it was confirmed that he was dead. Mr. Schapansky had been dispatched to the scene of the fire on March 29 at approximately 0415 hours. He had entered the burning building to try to extinguish the fire and had become trapped inside the building. He died before he could be rescued.

INVESTIGATIVE FINDINGS

On March 29, 2004 at approximately 0413 hours, the Clearwater Emergency Dispatch Centre received a report of smoke coming from the Covered Wagon Restaurant in Clearwater. An immediate call out was made to the members of the Clearwater Volunteer Fire Department. Mr. Schapansky and four other fire fighters, including the Deputy Fire Chief, met at the Clearwater Fire Hall and drove to the scene in a fire truck, arriving at 0426 hours. When they arrived at the scene, they found the building full of smoke. A positive ventilation fan was used to reduce the smoke in the building to improve visibility. At approximately 0440 hours, after some of the smoke was cleared from the building, Mr. Schapansky and a partner entered the front of the building with a charged fire hose to try and locate the fire. Mr. Schapansky and his partner were both wearing and breathing from 30-minute self-contained breathing apparatus (SCBA). The SCBA consisted of an air tank that was worn on their backs with appropriate breathing apparatus attached to the tank.

Mr. Schapansky and his partner were unable to locate the fire in the restaurant area. They then moved to the kitchen area located near the back of the restaurant. Mr. Schapansky and his partner had radio contact with the fire fighters outside the building. At this time, the Fire Chief who was now at the scene observed that the smoke coming from the building was darkening and increasing in volume. The Fire Chief contacted Mr. Schapansky and told him and his partner to evacuate the building. Shortly after being told to evacuate the building, Mr. Schapansky contacted the Fire Chief with a distress call. Following the distress call, a Rapid Intervention Team (RIT) entered the front of the building to search for Mr. Schapansky and his partner. An RIT usually consists of two fire fighters and is used to rescue personnel from inside a building that are in distress. The RIT that entered the front of the building was unsuccessful in locating Mr. Schapansky and his partner. They were stopped in their rescue attempt due to the heat and smoke inside the building.

At 0451 hours, Mr. Schapansky radioed another distress call advising that they were running out of air and it was getting very hot where they were in the building. The Fire Chief told Mr. Schapansky and his partner to move to the back of the building. The back door to the building was forcibly opened and a second RIT entered the building through the rear door. That team also could not locate Mr. Schapansky and his partner and were stopped because of the excessive heat and smoke. They could hear a pass alarm near the back of the restaurant.

A pass alarm sounds when the person that is wearing it stops moving. Its purpose is to help locate someone in difficulty.

The Fire Chief, fearing that Mr. Schapansky and his partner had fallen through the floor into the basement, sent another RIT down the back internal stairwell to the basement to try and locate them. It was realized that the fire was intensifying, so the RIT was ordered out of the building. By this time the roof of the building had burned through. The fire fighters on the outside of the building then concentrated on knocking the fire down by pouring as much water as they could onto the building.

Mr. Schapansky's partner survived the incident and later recalled that they had entered the kitchen area and were trying to get to the back of the building when they became confused and disoriented. The floor under them was very hot and was starting to collapse. They ended up near the back of the kitchen where they were waiting for the RIT to locate them when Mr. Schapansky collapsed. Mr. Schapansky's partner advised that he was unable to move Mr. Schapansky and realized that he was running out of air. Mr. Schapansky's partner then tried to return to the front of the building by following the hose back to the front door. Debris on the hose made it difficult to follow and when his air tank became depleted he pulled off his air-pack face mask. He then lost contact with the hose and took refuge under a table near the front of the restaurant. After a period of time, Mr. Schapansky's partner remembered that he had a cell phone with him and at 0552 hours he called 911 reporting his location in the building. At 0615 hours, members of the Clearwater Fire Department were able to locate and rescue him from the building. Mr. Schapansky's partner told the rescuers where he had left Mr. Schapansky and his body was found at approximately 0625 hours, 3 to 4 metres from the central rear door of the building. He was removed from the building and taken immediately to the Clearwater Hospital.

The Covered Wagon Restaurant building was an approximately 19 year old wood frame building. It was approximately 427 sq. metres on the main floor, with 149 sq. metres of basement under the central area. It had 7 exterior doors and 19 windows. Electric baseboard heaters in the basement supplied the basement heat and an oil forced air furnace supplied heat to the main floor. The cooking appliances in the kitchen were propane, served by a propane storage tank at the back of the building. The building was for sale at the time of the fire and had not been in use as a restaurant for 6 months.

The Office of the Fire Commissioner completed an investigation of the fire. The fire investigation report stated that the major fire activity was confined to the false ceiling space in the basement. The fire consumed most of the main floor joists in an eight (8) foot circle and left deep saddle burns on the top edge of the wooden 2" x 4" ceiling joists of the drop ceiling. The fire extended up through the kitchen floor in three (3) areas. A plywood air vent passing through the floor between the enclosed ceiling space and the dining area allowed the fire to travel to the main floor and then up and out to all other areas of the building. Burn patterns and direction of fire travel indicators were consistent with the fire starting in the enclosed drop ceiling space and travelling up and out to other areas of the building. Fire activity was slow and was contained in the area of origin for a considerable length of time, creating damage to structural and service components. The exact point of origin,

first ignited and the heat of ignition could not be determined due to the extensive damage. All mechanical and electrical equipment in the area of origin gave no indication of malfunction prior to the fire. Some electrical wires were stapled to the floor joists and some were lying loose on the ceiling joists. Three (3) wires had portions missing and evidence of arcs, beading and melting. The Provincial Electrical Inspector completed an inspection of the electrical service and all wires in the area of origin. His summary of findings was inconclusive. Fire investigation report concluded that the fire was consistent with being accidental and the cause was undetermined.

The Worker's Compensation Board (WCB) conducted an extensive investigation into the circumstances surrounding the death of Mr. Schapansky. That investigation examined the level of training and preparedness of the Clearwater Volunteer Fire Department and the equipment used by the fire fighters. The Clearwater Improvement District oversees the Clearwater Volunteer Fire Department. The WCB investigation report outlined a number of areas of deficiency in the training of the fire fighters and maintenance of the fire fighting equipment by the Clearwater Volunteer Fire Department.

As part of the WCB investigation, the two Self-Contained Breathing Apparatus (air tanks and breathing apparatus) worn by Schapansky and his partner were sent to the National Institute for Occupational Safety and Health (NIOSH), Pittsburgh, Pennsylvania, USA. At NIOSH, the National Personal Protective Technology Laboratory/Respirator Branch examined the air tanks and related equipment. NIOSH issued a report dated March 31, 2005, on the results of the tests conducted on the equipment. Unit #2 was the SCBA equipment worn by Mr. Schapansky and Unit #1 was the equipment worn by his partner. The SCBA Testing report stated that the low-air alarm whistles of both SCBA failed to operate. They therefore did not meet the requirements of the Remaining Service Life Indicator Test. This also caused both units to fail the EFPA Air Flow Performance Test. In addition, Unit #1 failed to meet the exhalation resistance requirement of the NFPA Air Flow Performance Test. Unit #2 could not maintain the facepiece pressure above ambient during the Positive Pressure Test. The exhalation Valve of Unit #2 was observed to stick open during testing. This could tend to permit inward leakage of contaminants. The NIOSH report further stated that the cylinder connector nut on Unit #2 was the incorrect part. It is the connection designed for a 4500 psi unit, not a 2216 psi unit.

The WCB Accident Investigation report dated April 26, 2005 identified a number of concerns:

- Formal examination of the two SCBA units by NIOSH indicates that the "low" air alarm whistles on both units were defective and not functioning at the time of testing. (Note – These units were inside a structural fire for over 2 hours).
- The examination also indicated that one of the SCBA cylinders, manufactured in 1996, had never been hydro-tested, and that there were "incorrect" parts (hand wheel) on the deceased's SCBA unit.
- The Fire Chief and the Deputy Fire Chief have no accredited incident command training.
- There is no "entry" policy for interior attacks on burning structures (occupied or not).
- There is no training officer designated for this fire department.

- There was no written Operating Guidelines (OG) for this fire department at the time of the accident.
- There were no training records provided by the employer for any accredited training done by the initial interior attack crew, RIT members or the fire management team (Fire Chief and deputy Fire Chief) on site.
- Documentation received from the Clearwater volunteer fire chief indicated that Mr. Schapansky had limited exposure to interior fighting of burning structures.
- Documentation received from the Clearwater volunteer fire chief and interviews indicate that Mr. Schapansky's had no previous exposure to interior fighting of burning structures.
- There are no clear standards set out by the Office of the Fire Commissioner to outline minimum training requirements for volunteer fire fighters. Quote: "Volunteer Fire Fighters must be trained to the level in which local authority require their fire fighters to action fires."
- There are no clear standards set out by the local authority (Clearwater Improvement District), to outline the level to which they expect their fire fighters to action fires. Quote: "Our Fire Fighters are expected to fight fires that are within their training limitations."
- The (WCB) officer had not found a clear accredited standard that the Justice Institute or Office of the Fire Commissioner has required for volunteer fire fighters provincially. "The Clearwater volunteer fire fighters were training themselves to what they believed was an acceptable standard to fight fires they were required to fight. As being like most small fire halls, the Clearwater volunteer fire fighters had little exposure to fighting structural fires. This led the fire management team and attack crews to make decisions that were not based on recognized industry practices. This not only led to a fatality but also to another injured fire fighter being inside the burning structure for almost 2 hours before being finally rescued."

As a result of the findings during the WCB investigation, WCB made a number of Orders to the Clearwater Improvement District. In addition to the deficiencies previously noted, these orders directed that:

- In regard to equipment: "Have all other SCBAs used by the Fire Department tested by the manufacturer or by a recognized agent of the manufacturer without delay."

The orders also identified that:

- There is not documentation or evidence provided to indicate that the self-contained breathing apparatus, including regulators (prior to March 29th, 2004) were serviced and repaired by qualified persons.
- Documentation provided by the employer indicates that complete maintenance and repair records for each SCBA and all air cylinders have not been maintained with the proper standards (i.e. in accordance with the requirements of SCA Standards CAN/CSA-Z.94.4-93, and the manufacturer).

The Clearwater Improvement District has complied with all the orders issued by WCB.

The NIOSH technician that examined the two SCBA units that were worn by Mr. Schapansky and his partner advised that there is no way of knowing if the low-air alarm whistles were working prior to the fire. Mr.

Schapansky's partner advised that when he put his unit on, the whistle beeped when he started to use the tank. He also advised that the whistle might have sounded while he was inside the building and he did not hear it because of the noise from the fire and what was occurring at the time. The NIOSH technician also advised that, if the inhalation breathing resistance of Mr. Schapansky's unit dropped below ambient while he was using it, as it did during the testing; this might have allowed some smoke inside the mask. The NIOSH technician advised that the incorrect cylinder connector nut on the SCBA worn by Mr. Schapansky would not have altered the performance of the unit.

The Clearwater Improvement District had the SCBA units being used by the Volunteer Fire Department tested by a qualified service technician. That technician issued a report dated November 23, 2004 advising that all the SCBA units for the most part were in good working order. The report reads in part that the few components pulled from service were for minor seal replacement and detracted nothing from the safe functioning of the units. The technician advised that he had checked with a senior service technician with the manufacturer of the units and was told that it was not unusual for the low-air alarm whistles to not work after being exposed to heat and smoke.

The WCB investigation revealed that the Clearwater Volunteer Fire Department lacked training and they were using equipment that may have not been working properly. Mr. Schapansky and his partner entered an unoccupied burning building, which was contrary to industry practices. In regard to the "low-air alarm" whistles, the Fire Chief advised that he has been fire chief for 7 years prior to this incident and he is not aware of any of the "low-air alarm" whistles failing either during practices or while in use.

The Administrator for the Clearwater Improvement District and the Fire Chief both advised that approximately 2 months prior to this incident they had met and agreed to have Operational Guidelines developed for the department. In regard to a training officer, the department had shared the training amongst the senior members with expertise, rather than having a designated training officer.

The investigation could not confirm the reason for Mr. Schapansky's collapse. The floor under Mr. Schapansky had started to give away and it was suggested he may have had a panic attack. He may also have run out of air from his tank. Mr. Schapansky's partner advised that he tried to help Mr. Schapansky after he collapsed; however, he was too heavy for him to move.

The Office of the Fire Commissioner is the senior authority in the province of British Columbia with respect to fire safety and prevention. In March 1994, that office provided a manual entitled Fire Department Operational Guidelines to assist fire departments in establishing operational guidelines in order to help improve the safety and efficiency of fire department operations. In the preface, the manual reads in part; "This manual is provided for your assistance only and a considerable amount will be required on behalf of the fire departments, in order to establish a comprehensive set of operational guidelines. The final responsibility for the establishment of operational guidelines rests with the fire chief." Within the manual's operational guideline under Fire Fighter

Training Standards- Volunteer the policy reads: "The Department will train volunteer fire fighters on a regular basis to Provincial and Municipal Standards." The manual then provides a set minimum recommended training requirement for volunteer fire fighters. In March/April 1995, an Official Bulletin of the Fire Commissioner British Columbia was issued under "B.C. Fire Fighter Standard Approved". The bulletin reads in part: "The adoption of the standard in whole or in part is voluntary. The adoption of specific sections in the standard should be based on by-laws of the local governing body and operational procedures for their fire departments."

On December 18, 2002, the Minister responsible for the Office of the Fire Commissioner signed an Order in Council and Ministerial Order - (M 368). The order states: "Further to the authority granted by Section 3(3)(b) of the *Fire Services Act*, the training standards for fire service personnel in British Columbia are those established by the National Fire Protection Association, effective January 1, 2003. The previous editions of the British Columbia fire service training standards are hereby rescinded."

The National Fire Protection Association (NFPA) 1001, 1997 Edition, Standard for Fire Fighter Professional Qualifications, provides a standard for minimum job performance requirements for career and volunteer fire fighters. The standard identifies the training and requirements a candidate must meet to be certified as a fire fighter at Level I and Level II. The NFPA standard states that the minimum education, age and physical fitness requirements shall be developed and validated by the authority having jurisdiction. The NFPA Standard recommends standards and job performance levels for evaluators for certification of both the fire fighters and their equipment.

The Justice Institute of BC Fire and Safety Division have developed courses to train and develop fire fighters to Level I and Level II. The Justice Institute also has a policy and guideline to properly select, train and evaluate persons who will become fire department and regional evaluators. The Justice Institute Certification Program includes a Basic Fire Fighting Certificate as well as Level I and Level II at the lower levels.

The Fire Chief for the Clearwater Volunteer Fire Department advised that their department had been using the guidelines issued by the Justice Institute as a reference for training their volunteers. He states that the guidelines are fine for a career fire fighter; however, for a volunteer department it is very difficult to get the volunteer certified to the levels outlined. He advised that Mr. Schapansky and his partner had both taken enough training to be considered basic fire fighters. They both had received adequate training to do the job they were given.

The Fire Chief advised that the policy of the Clearwater Volunteer Fire Department was too aggressive prior to this incident. In this case the owner of the building appeared at the scene and unlocked the front door prior to any fire fighters entering the building. The Deputy Fire Chief directed Mr. Schapansky and his partner to go into the building and to go to the kitchen to try to locate the fire and put it out. Mr. Schapansky's partner advised that, at the location where Mr. Schapansky collapsed, they could no longer pull the fire hose they had with them. The hose had been either extended to its full length or it had become caught when they went around

the island in the kitchen. The Fire Chief stated that he and his officers had been concerned about the department being over aggressive. This concern had prompted the decision to develop operational guidelines for the department. Since this incident the department has developed operational guidelines that include under O.G. #1.04.09 – Section 1: SAFETY – Personnel Risk. It reads in part, "In all cases, personnel safety shall be considered ahead of property. Activities that present a significant risk to members shall be limited to situations where there is a potential to save endangered lives. No risk to the safety of members shall be acceptable when there is no possibility of saving lives or savable property".

Each municipality or governing body has to set the standard of training and operational guidelines for their respective volunteer fire departments. Without a minimum standard of training for volunteer fire fighters, there are variances in the level of training volunteer fire fighters have in the province. It is felt that there should be clear minimum training standards for volunteer fire departments in British Columbia. There also is a need for the employer of volunteer fire departments to initiate and maintain regular inspection and audit processes to ensure volunteer fire departments meet recognized standards in regard to the maintenance of equipment and the department's operational policy.

POST MORTEM AND TOXICOLOGY EXAMINATION

External examination revealed a broken blister measuring 14 x 7 cm on the anterior aspect of the right foot. There was an area of burnt skin measuring 30 x 30 cm on the right posterior shoulder. Internal examination revealed no injuries. Toxicology revealed a lethal carboxyhemoglobin level of 55%.

CONCLUSION

I find that Chad Jerry Schapansky died in Clearwater on March 29, 2004 as a result of smoke inhalation due to a a restaurant fire. I classify his death as accidental.

Pursuant to Section 3(2)(d) of the *Coroners Act*, the following recommendations are forwarded to the Chief Coroner for the Province of British Columbia for distribution to the appropriate agencies.

J. A. Latimer

John A. Latimer, A Coroner
in and for the Province of British Columbia

RECOMMENDATIONS

To: Mr. David Hodgins
The Office of the Fire Commissioner
P.O. Box 9491
Stn. Prov. Gov't.
Victoria, BC V8W 9N7

1. The Office of the Fire Commissioner in conjunction with the Justice Institute develop and establish clear minimum training standards for volunteer fire fighters in British Columbia.

2. The Office of the Fire Commissioner together with the employer of volunteer fire departments in British Columbia (Districts, Municipalities and Regional Districts etc.), initiate and maintain a regular inspection and audit process to ensure volunteer fire departments and fire fighters meet provincially recognized standards for equipment, training and operational policy.

3. The Office of the Fire Commissioner provide a copy of this *Judgement of Inquiry* to all volunteer fire departments in British Columbia.

Appendix 4: Playbook Training Requirements

Structure Firefighters Competency and Training

PLAYBOOK

Second Edition: May 2015

References to NFPA Standards for:

Train the Trainer

Exterior Operations Firefighter

Interior Operations Firefighter

Full Service Operations Firefighter

Team Leader Exterior and Interior

Risk Management Officer

Company Fire Officer

Standards Referenced:

NFPA 220	Standard on Types of Building Construction
NFPA 921	Guide for Fire and Explosion Investigations
NFPA 1001	Standard for Fire Fighter Professional Qualifications
NFPA 1021	Standard for Fire Officer Professional Qualifications
NFPA 1041	Standard for Fire Service Instructor Professional Qualifications
NFPA 1407	Standard for Training Fire Service Rapid Intervention Crews
NFPA 1500	Standard on Occupational Safety and Health Program
NFPA 1584	Standard on the Rehabilitation Process for Members During Emergency Operations and Training Exercises
NFPA 5000	Building Construction and Safety Code

Train the Trainer	Competency Met
NFPA 1041 4.2.1 – 4.2.4 / 4.3.2 – 4.3.3 / 4.4.1 – 4.4.4 / 4.5.1 – 4.5.3 and 4.5.5	
4.2.1 Definition of Duty. The management of basic resources and the records and reports essential to the instructional process.	
4.2.2 Assemble course materials, given a specific topic, so that the lesson plan and all materials, resources, and equipment needed to deliver the lesson are obtained. **(A) Requisite Knowledge.** Components of a lesson plan, policies and procedures for the procurement of materials and equipment, and resource availability. **(B) Requisite Skills.** None required.	Yes ☐ No ☐
4.2.3 Prepare requests for resources, given training goals and current resources, so that the resources required to meet training goals are identified and documented. **(A) Requisite Knowledge.** Resource management, sources of instructional resources and equipment. **(B) Requisite Skills.** Training schedule completion.	Yes ☐ No ☐
4.2.4 Schedule single instructional sessions, given a training assignment, department scheduling procedures, instructional resources, facilities and timeline for delivery, so that the specified sessions are delivered according to department procedure. **(A) Requisite Knowledge.** Departmental scheduling procedures and resource management. **(B) Requisite Skills.** Training schedule completion.	Yes ☐ No ☐
4.3.2* Review instructional materials, given the materials for a specific topic, target audience, and learning environment, so that elements of the lesson plan, learning environment, and resources that need adaptation are identified. **(A) Requisite Knowledge.** Recognition of student limitations and cultural diversity, methods of instruction, types of resource materials, organization of the learning environment, and policies and procedures. **(B) Requisite Skills.** Analysis of resources, facilities, and materials	Yes ☐ No ☐
4.3.3* Adapt a prepared lesson plan, given course materials and an assignment, so that the needs of the student and the objectives of the lesson plan are achieved. **(A)* Requisite Knowledge.** Elements of a lesson plan, selection of instructional aids and methods, and organization of the learning environment. **(B) Requisite Skills.** Instructor preparation and organizational skills.	Yes ☐ No ☐
4.4.1 Definition of Duty. The delivery of instructional sessions utilizing prepared course materials.	
4.4.2 Organize the classroom, laboratory, or outdoor learning environment, given a facility and an assignment, so that lighting, distractions, climate control or weather, noise control, seating, audiovisual equipment, teaching aids, and safety are considered. **(A) Requisite Knowledge.** Classroom management and safety, advantages and limitations of audiovisual equipment and teaching aids, classroom arrangement, and methods and techniques of instruction. **(B) Requisite Skills.** Use of instructional media and teaching aids.	Yes ☐ No ☐
4.4.3 Present prepared lessons, given a prepared lesson plan that specifies the presentation method(s), so that the method(s) indicated in the plan are used and the stated objectives or learning outcomes are achieved, applicable safety standards and practices are followed, and risks are addressed. **(A)* Requisite Knowledge.** The laws and principles of learning, methods and techniques of instruction, lesson plan components and elements of the communication process, and lesson plan terminology and definitions; the impact of cultural differences on instructional delivery; safety rules, regulations, and practices; identification of training hazards; elements and limitations of distance learning; distance learning delivery methods; and the instructor's role in distance learning. **(B) Requisite Skills.** Oral communication techniques, methods and techniques of instruction, and utilization of lesson plans in an instructional setting.	Yes ☐ No ☐

Train the Trainer	Competency Met
4.4.4* Adjust presentation, given a lesson plan and changing circumstances in the class environment, so that class continuity and the objectives or learning outcomes are achieved. **(A) Requisite Knowledge.** Methods of dealing with changing circumstances. **(B) Requisite Skills.** None required	Yes ☐ No ☐
4.5.1* Definition of Duty. The administration and grading of student evaluation instruments.	
4.5.2 Administer oral, written, and performance tests, given the lesson plan, evaluation instruments, and evaluation procedures of the agency, so that bias or discrimination is eliminated the testing is conducted according to procedures, and the security of the materials is maintained. **(A) Requisite Knowledge.** Test administration, agency policies, laws and policies pertaining to discrimination during training and testing, methods for eliminating testing bias, laws affecting records and disclosure of training information, purposes of evaluation and testing, and performance skills evaluation. **(B) Requisite Skills.** Use of skills checklists and oral questioning techniques.	Yes ☐ No ☐
4.5.3 Grade student oral, written, or performance tests, given class answer sheets or skills checklists and appropriate answer keys, so the examinations are accurately graded and properly secured. **(A) Requisite Knowledge.** Grading methods, methods for eliminating bias during grading, and maintaining confidentiality of scores. **(B) Requisite Skills.** None required.	Yes ☐ No ☐
4.5.5* Provide evaluation feedback to students, given evaluation data, so that the feedback is timely; specific enough for the student to make efforts to modify behavior; and objective, clear, and relevant; also include suggestions based on the data. **(A) Requisite Knowledge.** Reporting procedures and the interpretation of test results. **(B) Requisite Skills.** Communication skills and basic coaching.	Yes ☐ No ☐

Exterior Operations – Firefighter	Competency Met
Emergency Scene Traffic NFPA 1001 5.3.3	
5.3.3* Establish and operate in work areas at emergency scenes, given protective equipment, traffic and scene control devices, structure fire and roadway emergency scenes, traffic hazards and downed electrical wires, an assignment, and SOPs, so that procedures are followed, protective equipment is worn, protected work areas are established as directed using traffic and scene control devices, and the fire fighter performs assigned tasks only in established, protected work areas. **(A) Requisite Knowledge.** Potential hazards involved in operating on emergency scenes including vehicle traffic, utilities, and environmental conditions; proper procedures for dismounting apparatus in traffic; procedures for safe operation at emergency scenes; and the protective equipment available for members' safety on emergency scenes and work zone designations. **(B) Requisite Skills.** The ability to use personal protective clothing, deploy traffic and scene control devices, dismount apparatus, and operate in the protected work areas as directed.	Yes ☐ No ☐
Safety & Communications NFPA 1001 5.1.1, 5.1.2, 5.2, 5.2.1, 5.2.2, 5.2.3, 5.3.2, 5.3.17, 5.3.18	
5.1 General. For qualification at Level I, the fire fighter candidate shall meet the general knowledge requirements in 5.1.1; the general skill requirements in 5.1.2; the JPRs defined in Sections 5.2 through 5.5 of this standard; and the requirements defined in Chapter 5, Core Competencies for Operations Level Responders, and Section 6.6, Mission-Specific Competencies: Product Control, of NFPA 472, *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents*.	Yes ☐ No ☐
5.1.1 General Knowledge Requirements. The organization of the fire department; the role of the Fire Fighter I in the organization; the mission of fire service; the fire department's standard operating procedures (SOPs) and rules and regulations as they apply to the Fire Fighter I; the value of fire and life safety initiatives in support of the fire department mission and to reduce fire fighter line-of-duty injuries and fatalities; the role of other agencies as they relate to the fire department; aspects of the fire department's member assistance program; the importance of physical fitness and a healthy lifestyle to the performance of the duties of a fire fighter; the critical aspects of NFPA1500, *Standard on Fire Department Occupational Safety and Health Program.*	Yes ☐ No ☐
5.1.2 General Skill Requirements. The ability to don personal protective clothing, doff personal protective clothing and prepare for reuse, hoist tools and equipment using ropes and the correct knot, and locate information in departmental documents and standard or code materials.	Yes ☐ No ☐
5.2 Fire Department Communications. This duty shall involve initiating responses, receiving telephone calls, and using fire department communications equipment to correctly relay verbal or written information, according to the JPRs in 5.2.1 through 5.2.4.	
5.2.1* Initiate the response to a reported emergency, given the report of an emergency, fire department SOPs, and communications equipment, so that all necessary information is obtained, communications equipment is operated correctly, and the information is relayed promptly and accurately to the dispatch center. **(A) Requisite Knowledge.** Procedures for reporting an emergency; departmental SOPs for taking and receiving alarms, radio codes, or procedures; and information needs of dispatch center. **(B) Requisite Skills.** The ability to operate fire department communications equipment, relay information, and record information.	Yes ☐ No ☐
5.2.2 Receive a telephone call, given a fire department phone, so that procedures for answering the phone are used and the caller's information is relayed. **(A) Requisite Knowledge.** Fire department procedures for answering nonemergency telephone calls. **(B) Requisite Skills.** The ability to operate fire station telephone and intercom equipment.	Yes ☐ No ☐

Exterior Operations – Firefighter	Competency Met
5.2.3 Transmit and receive messages via the fire department radio, given a fire department radio and operating procedures, so that the information is accurate, complete, clear, and relayed within the time established by the AHJ. **(A) Requisite Knowledge.** Departmental radio procedures and etiquette for routine traffic, emergency traffic, and emergency evacuation signals. **(B) Requisite Skills.** The ability to operate radio equipment and discriminate between routine and emergency traffic.	Yes ☐ No ☐
5.3.2* Respond on apparatus to an emergency scene, given personal protective clothing and other necessary personal protective equipment, so that the apparatus is correctly mounted and dismounted, seat belts are used while the vehicle is in motion, and other personal protective equipment is correctly used. **(A) Requisite Knowledge.** Mounting and dismounting procedures for riding fire apparatus, hazards and ways to avoid hazards associated with riding apparatus, prohibited practices, and types of department personal protective equipment and the means for usage. **(B) Requisite Skills.** The ability to use each piece of provided safety equipment.	Yes ☐ No ☐
5.3.17 Illuminate the emergency scene, given fire service electrical equipment and an assignment, so that designated areas are illuminated and all equipment is operated within the manufacturer's listed safety precautions. **(A) Requisite Knowledge.** Safety principles and practices, power supply capacity and limitations, and light deployment methods. supply and lighting equipment, deploy cords and connectors, reset ground-fault interrupter (GFI) devices, and locate lights for best effect.	Yes ☐ No ☐
5.3.18 Turn off building utilities, given tools and an assignment, so that the assignment is safely completed. **(A) Requisite Knowledge.** Properties, principles, and safety concerns for electricity, gas, and water systems; utility disconnect methods and associated dangers; and use of required safety equipment. **(B) Requisite Skills.** The ability to identify utility control devices, operate control valves or switches, and assess for related hazards.	Yes ☐ No ☐
PPE and Self Contained Breathing Apparatus NFPA 1001 5.1.2, 5.2, 5.3, 5.3.1, 5.3.2, 5.5.1	
5.1.2 General Skill Requirements. The ability to don personal protective clothing, doff personal protective clothing and prepare for reuse, hoist tools and equipment using ropes and the correct knot, and locate information in departmental documents and standard or code materials.	Yes ☐ No ☐
5.2 Fire Department Communications. This duty shall involve initiating responses, receiving telephone calls, and using fire department communications equipment to correctly relay verbal or written information, according to the JPRs in 5.2.1 through 5.2.4.	Yes ☐ No ☐
5.3 Fireground Operations. This duty shall involve performing activities necessary to ensure life safety, fire control, and property conservation, according to the JPRs in 5.3.1 through 5.3.20.	
5.3.1* Use self-contained breathing apparatus (SCBA) during emergency operations, given SCBA and other personal protective equipment, so that the SCBA is correctly donned, the SCBA is correctly worn, controlled breathing techniques are used, emergency procedures are enacted if the SCBA fails, all low-air warnings are recognized, respiratory protection is not intentionally compromised, and hazardous areas are exited prior to air depletion. **(A) Requisite Knowledge.** Conditions that require respiratory protection, uses and limitations of SCBA, components of SCBA, donning procedures, breathing techniques, indications for and emergency procedures used with SCBA, and physical requirements of the SCBA wearer. **(B) Requisite Skills.** The ability to control breathing, replace SCBA air cylinders, use SCBA to exit through restricted passages, initiate and complete emergency procedures in the event of SCBA failure or air depletion, and complete donning procedures.	Yes ☐ No ☐

Exterior Operations – Firefighter	Competency Met
5.3.2* Respond on apparatus to an emergency scene, given personal protective clothing and other necessary personal protective equipment, so that the apparatus is correctly mounted and dismounted, seat belts are used while the vehicle is in motion, and other personal protective equipment is correctly used. **(A) Requisite Knowledge.** Mounting and dismounting procedures for riding fire apparatus, hazards and ways to avoid hazards associated with riding apparatus, prohibited practices, and types of department personal protective equipment and the means for usage. **(B) Requisite Skills.** The ability to use each piece of provided safety equipment.	Yes ☐ No ☐
5.5.1 Clean and check ladders, ventilation equipment, SCBA, ropes, salvage equipment, and hand tools, given cleaning tools, cleaning supplies, and an assignment, so that equipment is clean and maintained according to manufacturer's or departmental guidelines, maintenance is recorded, and equipment is placed in a ready state or reported otherwise. **(A) Requisite Knowledge.** Types of cleaning methods for various tools and equipment, correct use of cleaning solvents, and manufacturer's or departmental guidelines for cleaning equipment and tools. **(B) Requisite Skills.** The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures.	Yes ☐ No ☐
Ropes and Knots NFPA 1001 5.1.2, 5.3.20, 5.5.1	
5.1.2 General Skill Requirements. The ability to don personal protective clothing, doff personal protective clothing and prepare for reuse, hoist tools and equipment using ropes and the correct knot, and locate information in departmental documents and standard or code materials.	Yes ☐ No ☐
5.3.20 Tie a knot appropriate for hoisting tool, given personnel protective equipment, tools, ropes, and an assignment, so that the knots used are appropriate for hoisting tools securely and as directed. **(A) Requisite Knowledge.** Knot types and usage; the difference between life safety and utility rope; reasons for placing rope out of service; the types of knots to use for given tools, ropes, or situations; hoisting methods for tools and equipment; and using rope to support response activities. **(B) Requisite Skills.** The ability to hoist tools using specific knots based on the type of tool.	Yes ☐ No ☐
5.5.1 Clean and check ladders, ventilation equipment, SCBA, ropes, salvage equipment, and hand tools, given cleaning tools, cleaning supplies, and an assignment, so that equipment is clean and maintained according to manufacturer's or departmental guidelines, maintenance is recorded, and equipment is placed in a ready state or reported otherwise. **(A) Requisite Knowledge.** Types of cleaning methods for various tools and equipment, correct use of cleaning solvents, and manufacturer's or departmental guidelines for cleaning equipment and tools. **(B) Requisite Skills.** The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures.	Yes ☐ No ☐

Exterior Operations – Firefighter	Competency Met
Fire Streams, Hose and Appliances NFPA 1001 5.3.7, 5.3.8, 5.5.1, 5.5.2	
5.3.7* Attack a passenger vehicle fire operating as a member of a team, given personal protective equipment, attack line, and hand tools, so that hazards are avoided, leaking flammable liquids are identified and controlled, protection from flash fires is maintained, all vehicle compartments are overhauled, and the fire is extinguished. **(A) Requisite Knowledge.** Principles of fire streams as they relate to fighting automobile fires; precautions to be followed when advancing hose lines toward an automobile; observable results that a fire stream has been properly applied; identifying alternative fuels and the hazards associated with them; dangerous conditions created during an automobile fire; common types of accidents or injuries related to fighting automobile fires and how to avoid them; how to access locked passenger, trunk, and engine compartments; and methods for overhauling an automobile. **(B) Requisite Skills.** The ability to identify automobile fuel type; assess and control fuel leaks; open, close, and adjust the flow and pattern on nozzles; apply water for maximum effectiveness while maintaining flash fire protection; advance $1_1/_2$ in. (38 mm) or larger diameter attack lines; and expose hidden fires by opening all automobile compartments. in stacked or piled and small unattached structures or storage containers that can be fought from the exterior, attack lines, hand tools and master stream devices, and an assignment, so that exposures are protected, the spread of fire is stopped, collapse hazards are avoided, water application is effective, the fire is extinguished, and signs of the origin area(s) and arson are preserved.	Yes ☐ No ☐
5.3.8* Extinguish fires in exterior Class A materials, given fires in stacked or piled and small unattached structures or storage containers that can be fought from the exterior, attack lines, hand tools and master stream devices, and an assignment, so that exposures are protected, the spread of fire is stopped, collapse hazards are avoided, water application is effective, the fire is extinguished, and signs of the origin area(s) and arson are preserved. **(A) Requisite Knowledge.** Types of attack lines and water streams appropriate for attacking stacked, piled materials and outdoor fires; dangers — such as collapse — associated with stacked and piled materials; various extinguishing agents and their effect on different material configurations; tools and methods to use in breaking up various types of materials; the difficulties related to complete extinguishment of stacked and piled materials; water application methods for exposure protection and fire extinguishment; dangers such as exposure to toxic or hazardous materials associated with storage building and container fires; obvious signs of origin and cause; and techniques for the preservation of fire cause evidence. **(B) Requisite Skills.** The ability to recognize inherent hazards related to the material's configuration, operate handlines or master streams, break up material using hand tools and water streams, evaluate for complete extinguishment, operate hose lines and other water application devices, evaluate and modify water application for maximum penetration, search for and expose hidden fires, assess patterns for origin determination, and evaluate for complete extinguishment	Yes ☐ No ☐
5.5.1 Clean and check ladders, ventilation equipment, SCBA, ropes, salvage equipment, and hand tools, given cleaning tools, cleaning supplies, and an assignment, so that equipment is clean and maintained according to manufacturer's or departmental guidelines, maintenance is recorded, and equipment is placed in a ready state or reported otherwise. **(A) Requisite Knowledge.** Types of cleaning methods for various tools and equipment, correct use of cleaning solvents, and manufacturer's or departmental guidelines for cleaning equipment and tools. **(B) Requisite Skills.** The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures.	Yes ☐ No ☐
5.5.2 Clean, inspect, and return fire hose to service, given washing equipment, water, detergent, tools, and replacement gaskets, so that damage is noted and corrected, the hose is clean, and the equipment is placed in a ready state for service. **(A) Requisite Knowledge.** Departmental procedures for noting a defective hose and removing it from service, cleaning methods, and hose rolls and loads. **(B) Requisite Skills.** The ability to clean different types of hose; operate hose washing and drying equipment; mark defective hose; and replace coupling gaskets, roll hose, and reload hose.	Yes ☐ No ☐

Exterior Operations – Firefighter	Competency Met
Ventilation NFPA 1001 5.3.11, 5.5.1	
5.3.11 Perform horizontal ventilation on a structure operating as part of a team, given an assignment, personal protective equipment, ventilation tools, equipment, and ladders, so that the ventilation openings are free of obstructions, tools are used as designed, ladders are correctly placed, ventilation devices are correctly placed, and the structure is cleared of smoke. **(A) Requisite Knowledge.** The principles, advantages, limitations, and effects of horizontal, mechanical, and hydraulic ventilation; safety considerations when venting a structure; fire behavior in a structure; the products of combustion found in a structure fire; the signs, causes, effects, and prevention of backdrafts; and the relationship of oxygen concentration to life safety and fire growth. **(B) Requisite Skills.** The ability to transport and operate ventilation tools and equipment and ladders, and to use safe procedures for breaking window and door glass and removing obstructions	Yes ☐ No ☐
5.5.1 Clean and check ladders, ventilation equipment, SCBA, ropes, salvage equipment, and hand tools, given cleaning tools, cleaning supplies, and an assignment, so that equipment is clean and maintained according to manufacturer's or departmental guidelines, maintenance is recorded, and equipment is placed in a ready state or reported otherwise. **(A) Requisite Knowledge.** Types of cleaning methods for various tools and equipment, correct use of cleaning solvents, and manufacturer's or departmental guidelines for cleaning equipment and tools. **(B) Requisite Skills.** The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures.	Yes ☐ No ☐
Water Supply NFPA 1001 5.3.15, 5.5.1, 5.5.2	
5.3.15* Connect a fire department pumper to a water supply as a member of a team, given supply or intake hose, hose tools, and a fire hydrant or static water source, so that connections are tight and water flow is unobstructed. **(A) Requisite Knowledge.** Loading and off-loading procedures for mobile water supply apparatus; fire hydrant operation; and suitable static water supply sources, procedures, and protocol for connecting to various water sources. **(B) Requisite Skills.** The ability to hand lay a supply hose, connect and place hard suction hose for drafting operations, deploy portable water tanks as well as the equipment necessary to transfer water between and draft from them, make hydrant-to-pumper hose connections for forward and reverse lays, connect supply hose to a hydrant, and fully open and close the hydrant.	Yes ☐ No ☐
5.5.1 Clean and check ladders, ventilation equipment, SCBA, ropes, salvage equipment, and hand tools, given cleaning tools, cleaning supplies, and an assignment, so that equipment is clean and maintained according to manufacturer's or departmental guidelines, maintenance is recorded, and equipment is placed in a ready state or reported otherwise. **(A) Requisite Knowledge.** Types of cleaning methods for various tools and equipment, correct use of cleaning solvents, and manufacturer's or departmental guidelines for cleaning equipment and tools. **(B) Requisite Skills.** The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures	Yes ☐ No ☐
5.5.2 Clean, inspect, and return fire hose to service, given washing equipment, water, detergent, tools, and replacement gaskets, so that damage is noted and corrected, the hose is clean, and the equipment is placed in a ready state for service. **(A) Requisite Knowledge.** Departmental procedures for noting a defective hose and removing it from service, cleaning methods, and hose rolls and loads. **(B) Requisite Skills.** The ability to clean different types of hose; operate hose washing and drying equipment; mark defective hose; and replace coupling gaskets, roll hose, and reload hose.	Yes ☐ No ☐

Exterior Operations – Firefighter	Competency Met
Ladders NFPA 1001 5.3.6, 5.5.1	
5.3.6* Set up ground ladders, given single and extension ladders, an assignment, and team members if needed, so that hazards are assessed, the ladder is stable, the angle is correct for climbing, extension ladders are extended to the necessary height with the fly locked, the top is placed against a reliable structural component, and the assignment is accomplished. **(A) Requisite Knowledge.** Parts of a ladder, hazards associated with setting up ladders, what constitutes a stable foundation for ladder placement, different angles for various tasks, safety limits to the degree of angulation, and what constitutes a reliable structural component for top placement. **(B) Requisite Skills.** The ability to carry ladders, raise ladders, extend ladders and lock flies, determine that a wall and roof will support the ladder, judge extension ladder height requirements, and place the ladder to avoid obvious hazards.	Yes ☐ No ☐
5.5.1 Clean and check ladders, ventilation equipment, SCBA, ropes, salvage equipment, and hand tools, given cleaning tools, cleaning supplies, and an assignment, so that equipment is clean and maintained according to manufacturer's or departmental guidelines, maintenance is recorded, and equipment is placed in a ready state or reported otherwise. **(A) Requisite Knowledge.** Types of cleaning methods for various tools and equipment, correct use of cleaning solvents, and manufacturer's or departmental guidelines for cleaning equipment and tools. **(B) Requisite Skills.** The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures.	Yes ☐ No ☐
Rehabilitation Area (REHAB) NFPA 1001 5.1.1, NFPA 1500, NFPA 1584	
5.1.1 General Knowledge Requirements. The organization of the fire department; the role of the Fire Fighter I in the organization; the mission of fire service; the fire department's standard operating procedures (SOPs) and rules and regulations as they apply to the Fire Fighter I; the value of fire and life safety initiatives in support of the fire department mission and to reduce fire fighter line-of-duty injuries and fatalities; the role of other agencies as they relate to the fire department; aspects of the fire department's member assistance program; the importance of physical fitness and a healthy lifestyle to the performance of the duties of a fire fighter; the critical aspects of NFPA1500, *Standard on Fire Department Occupational Safety and Health Program*.	Yes ☐ No ☐
+ **NFPA 1500** Standard on Occupational Safety and Health Program	Yes ☐ No ☐
+ **NFPA 1584** Standard on the Rehabilitation Process for Members During Emergency Operations and Training Exercises	Yes ☐ No ☐
Introduction to Basic Fire Behavior and Building Construction NFPA 220, NFPA 921, NFPA 1001 5.3.11, 5.3.12, 5.3.13 NFPA 5000	
5.3.11 Perform horizontal ventilation on a structure operating as part of a team, given an assignment, personal protective equipment, ventilation tools, equipment, and ladders, so that the ventilation openings are free of obstructions, tools are used as designed, ladders are correctly placed, ventilation devices are correctly placed, and the structure is cleared of smoke. **(A) Requisite Knowledge.** The principles, advantages, limitations, and effects of horizontal, mechanical, and hydraulic ventilation; safety considerations when venting a structure; fire behavior in a structure; the products of combustion found in a structure fire; the signs, causes, effects, and prevention of backdrafts; and the relationship of oxygen concentration to life safety and fire growth. **(B) Requisite Skills.** The ability to transport and operate ventilation tools and equipment and ladders, and to use safe procedures for breaking window and door glass and removing obstructions.	Yes ☐ No ☐

Exterior Operations – Firefighter	Competency Met
5.3.12 Perform vertical ventilation on a structure as part of a team, given an assignment, personal protective equipment, ground and roof ladders, and tools, so that ladders are positioned for ventilation, a specified opening is created, all ventilation barriers are removed, structural integrity is not compromised, products of combustion are released from the structure, and the team retreats from the area when ventilation is accomplished. **(A) Requisite Knowledge.** The methods of heat transfer; the principles of thermal layering within a structure on fire; the techniques and safety precautions for venting flat roofs, pitched roofs, and basements; basic indicators of potential collapse or roof failure; the effects of construction type and elapsed time under fire conditions on structural integrity; and the advantages and disadvantages of vertical and trench/strip ventilation. **(B) Requisite Skills.** The ability to transport and operate ventilation tools and equipment; hoist ventilation tools to a roof; cut roofing and flooring materials to vent flat roofs, pitched roofs, and basements; sound a roof for integrity; clear an opening with hand tools; select, carry, deploy, and secure ground ladders for ventilation activities; deploy roof ladders on pitched roofs while secured to a ground ladder; and carry ventilation-related tools and equipment while ascending and descending ladders.	Yes ☐ No ☐
5.3.13 Overhaul a fire scene, given personal protective equipment, attack line, hand tools, a flashlight, and an assignment, so that structural integrity is not compromised, all hidden fires are discovered, fire cause evidence is preserved, and the fire is extinguished. **(A) Requisite Knowledge.** Types of fire attack lines and water application devices most effective for overhaul, water application methods for extinguishment that limit water damage, types of tools and methods used to expose hidden fire, dangers associated with overhaul, obvious signs of area of origin or signs of arson, and reasons for protection of fire scene. **(B) Requisite Skills.** The ability to deploy and operate an attack line; remove flooring, ceiling, and wall components to expose void spaces without compromising structural integrity; apply water for maximum effectiveness; expose and extinguish hidden fires in walls, ceilings, and subfloor spaces; recognize and preserve obvious signs of area of origin and arson; and evaluate for complete extinguishment.	Yes ☐ No ☐
+ **NFPA 220** Standard on Types of Building Construction	Yes ☐ No ☐
+ **NFPA 921** Guide for Fire and Explosion Investigations	Yes ☐ No ☐
+ **NFPA 5000** Building Construction and Safety Code	Yes ☐ No ☐
Dangerous Goods or Hazmat Awareness *(from NFPA 472)* • Can utilize any training provider, including internal, that meets the competencies of NFPA 472 – Awareness Level [Playbook: Page 16, note1]	Yes ☐ No ☐
Gas & Electrical Safety for Firefighters *(supplied by a BC Utility utilizing an evaluation mechanism)* • Can utilize any program, developed by a registered Gas or Electrical Utility within the Province of BC, which includes an evaluation instrument based upon current recommended practice [Playbook: Page 16, note 2]	Yes ☐ No ☐
Incident Command System 100 *(from BCERMS curriculum)* • Can utilize any training provider, including internal, using certified training and evaluation based upon the BCEMS model. [Playbook: Page 16, note 3]	Yes ☐ No ☐

Interior Operations – Firefighter	Competency Met
All of Exterior Operations Firefighter PLUS the following:	Yes ☐ No ☐
Organization, Safety and Communications NFPA 1001 5.2.4	
5.2.4* Activate an emergency call for assistance, given vision obscured conditions, PPE, and department SOPs, so that the fire fighter can be located and rescued. **(A) Requisite Knowledge.** Personnel accountability systems, emergency communication procedures, and emergency evacuation methods. **(B) Requisite Skills.** The ability to initiate an emergency call for assistance in accordance with the AHJ's procedures, the ability to use other methods of emergency calls for assistance.	Yes ☐ No ☐
RIT Training – pertinent to jurisdictional hazards NFPA 1001 5.3.9 NFPA 1407, NFPA 1500	
5.3.9* Conduct a search and rescue in a structure operating as a member of a team, given an assignment, obscured vision conditions, personal protective equipment, a flashlight, forcible entry tools, hose lines, and ladders when necessary, so that ladders are correctly placed when used, all assigned areas are searched, all victims are located and removed, team integrity is maintained, and team members' safety — including respiratory protection — is not compromised. **(A) Requisite Knowledge.** Use of forcible entry tools during rescue operations, ladder operations for rescue, psychological effects of operating in obscured conditions and ways to manage them, methods to determine if an area is tenable, primary and secondary search techniques, team members' roles and goals, methods to use and indicators of finding victims, victim removal methods (including various carries), and considerations related to respiratory protection. **(B)* Requisite Skills.** The ability to use SCBA to exit through restricted passages, set up and use different types of ladders for various types of rescue operations, rescue a fire fighter with functioning respiratory protection, rescue a fire fighter whose respiratory protection is not functioning, rescue a person who has no respiratory protection, and assess areas to determine tenability.	Yes ☐ No ☐
+ **NFPA 1407** Standard for Training Fire Service Rapid Intervention Crews	Yes ☐ No ☐
+ **NFPA 1500** Standard on Fire Department Occupational Safety and Health Program	Yes ☐ No ☐
Self-Contained Breathing Apparatus NFPA 1001 5.3.1, 5.3.5, 5.3.9	
5.3.1* Use self-contained breathing apparatus (SCBA) during emergency operations, given SCBA and other personal protective equipment, so that the SCBA is correctly donned, the SCBA is correctly worn, controlled breathing techniques are used, emergency procedures are enacted if the SCBA fails, all low-air warnings are recognized, respiratory protection is not intentionally compromised, and hazardous areas are exited prior to air depletion. **(A) Requisite Knowledge.** Conditions that require respiratory protection, uses and limitations of SCBA, components of SCBA, donning procedures, breathing techniques, indications for and emergency procedures used with SCBA, and physical requirements of the SCBA wearer. **(B) Requisite Skills.** The ability to control breathing, replace SCBA air cylinders, use SCBA to exit through restricted passages, initiate and complete emergency procedures in the event of SCBA failure or air depletion, and complete donning procedures.	Yes ☐ No ☐

Interior Operations – Firefighter	Competency Met
5.3.5* Exit a hazardous area as a team, given vision-obscured conditions, so that a safe haven is found before exhausting the air supply, others are not endangered, and the team integrity is maintained. **(A) Requisite Knowledge.** Personnel accountability systems, communication procedures, emergency evacuation methods, what constitutes a safe haven, elements that create or indicate a hazard, and emergency procedures for loss of air supply. **(B) Requisite Skills.** The ability to operate as a team member in vision-obscured conditions, locate and follow a guideline, conserve air supply, and evaluate areas for hazards and identify a safe haven.	Yes ☐ No ☐
5.3.9* Conduct a search and rescue in a structure operating as a member of a team, given an assignment, obscured vision conditions, personal protective equipment, a flashlight, forcible entry tools, hose lines, and ladders when necessary, so that ladders are correctly placed when used, all assigned areas are searched, all victims are located and removed, team integrity is maintained, and team members' safety — including respiratory protection — is not compromised. **(A) Requisite Knowledge.** Use of forcible entry tools during rescue operations, ladder operations for rescue, psychological effects of operating in obscured conditions and ways to manage them, methods to determine if an area is tenable, primary and secondary search techniques, team members' roles and goals, methods to use and indicators of finding victims, victim removal methods (including various carries), and considerations related to respiratory protection. **(B)* Requisite Skills.** The ability to use SCBA to exit through restricted passages, set up and use different types of ladders for various types of rescue operations, rescue a fire fighter with functioning respiratory protection, rescue a fire fighter whose respiratory protection is not functioning, rescue a person who has no respiratory protection, and assess areas to determine tenability.	Yes ☐ No ☐
Search and Rescue NFPA 1001 5.3.9	
5.3.9* Conduct a search and rescue in a structure operating as a member of a team, given an assignment, obscured vision conditions, personal protective equipment, a flashlight, forcible entry tools, hose lines, and ladders when necessary, so that ladders are correctly placed when used, all assigned areas are searched, all victims are located and removed, team integrity is maintained, and team members' safety — including respiratory protection — is not compromised. **(A) Requisite Knowledge.** Use of forcible entry tools during rescue operations, ladder operations for rescue, psychological effects of operating in obscured conditions and ways to manage them, methods to determine if an area is tenable, primary and secondary search techniques, team members' roles and goals, methods to use and indicators of finding victims, victim removal methods (including various carries), and considerations related to respiratory protection. **(B)* Requisite Skills.** The ability to use SCBA to exit through restricted passages, set up and use different types of ladders for various types of rescue operations, rescue a fire fighter with functioning respiratory protection, rescue a fire fighter whose respiratory protection is not functioning, rescue a person who has no respiratory protection, and assess areas to determine tenability.	Yes ☐ No ☐
Fire Behavior NFPA 1001	Yes ☐ No ☐

Interior Operations – Firefighter	Competency Met
Fire Extinguishers NFPA 1001 5.3.16	
5.3.16* Extinguish incipient Class A, Class B, and Class C fires, given a selection of portable fire extinguishers, so that the correct extinguisher is chosen, the fire is completely extinguished, and correct extinguisher-handling techniques are followed. **(A) Requisite Knowledge.** The classifications of fire; the types of, rating systems for, and risks associated with each class of fire; and the operating methods of and limitations of portable extinguishers. **(B) Requisite Skills.** The ability to operate portable fire extinguishers, approach fire with portable fire extinguishers, select an appropriate extinguisher based on the size and type of fire, and safely carry portable fire extinguishers.	Yes ☐ No ☐
Building Construction NFPA 1001 5.3.11, 5.3.12	
5.3.11 Perform horizontal ventilation on a structure operating as part of a team, given an assignment, personal protective equipment, ventilation tools, equipment, and ladders, so that the ventilation openings are free of obstructions, tools are used as designed, ladders are correctly placed, ventilation devices are correctly placed, and the structure is cleared of smoke. **(A) Requisite Knowledge.** The principles, advantages, limitations, and effects of horizontal, mechanical, and hydraulic ventilation; safety considerations when venting a structure; fire behavior in a structure; the products of combustion found in a structure fire; the signs, causes, effects, and prevention of backdrafts; and the relationship of oxygen concentration to life safety and fire growth. **(B) Requisite Skills.** The ability to transport and operate ventilation tools and equipment and ladders, and to use safe procedures for breaking window and door glass and removing obstructions.	Yes ☐ No ☐
5.3.12 Perform vertical ventilation on a structure as part of a team, given an assignment, personal protective equipment, ground and roof ladders, and tools, so that ladders are positioned for ventilation, a specified opening is created, all ventilation barriers are removed, structural integrity is not compromised, products of combustion are released from the structure, and the team retreats from the area when ventilation is accomplished. **(A) Requisite Knowledge.** The methods of heat transfer; the principles of thermal layering within a structure on fire; the techniques and safety precautions for venting flat roofs, pitched roofs, and basements; basic indicators of potential collapse or roof failure; the effects of construction type and elapsed time under fire conditions on structural integrity; and the advantages and disadvantages of vertical and trench/strip ventilation. **(B) Requisite Skills.** The ability to transport and operate ventilation tools and equipment; hoist ventilation tools to a roof; cut roofing and flooring materials to vent flat roofs, pitched roofs, and basements; sound a roof for integrity; clear an opening with hand tools; select, carry, deploy, and secure ground ladders for ventilation activities; deploy roof ladders on pitched roofs while secured to a ground ladder; and carry ventilation-related tools and equipment while ascending and descending ladders.	Yes ☐ No ☐
Forcible Entry NFPA 1001 5.3.4	
5.3.4* Force entry into a structure, given personal protective equipment, tools, and an assignment, so that the tools are used as designed, the barrier is removed, and the opening is in a safe condition and ready for entry. **(A) Requisite Knowledge.** Basic construction of typical doors, windows, and walls within the department's community or service area; operation of doors, windows, and locks; and the dangers associated with forcing entry through doors, windows, and walls. **(B) Requisite Skills.** The ability to transport and operate hand and power tools and to force entry through doors, windows, and walls using assorted methods and tools.	Yes ☐ No ☐
Ventilation NFPA 1001 5.3.12	

Interior Operations – Firefighter	Competency Met
5.3.12 Perform vertical ventilation on a structure as part of a team, given an assignment, personal protective equipment, ground and roof ladders, and tools, so that ladders are positioned for ventilation, a specified opening is created, all ventilation barriers are removed, structural integrity is not compromised, products of combustion are released from the structure, and the team retreats from the area when ventilation is accomplished. **(A) Requisite Knowledge.** The methods of heat transfer; the principles of thermal layering within a structure on fire; the techniques and safety precautions for venting flat roofs, pitched roofs, and basements; basic indicators of potential collapse or roof failure; the effects of construction type and elapsed time under fire conditions on structural integrity; and the advantages and disadvantages of vertical and trench/strip ventilation. **(B) Requisite Skills.** The ability to transport and operate ventilation tools and equipment; hoist ventilation tools to a roof; cut roofing and flooring materials to vent flat roofs, pitched roofs, and basements; sound a roof for integrity; clear an opening with hand tools; select, carry, deploy, and secure ground ladders for ventilation activities; deploy roof ladders on pitched roofs while secured to a ground ladder; and carry ventilation-related tools and equipment while ascending and descending ladders.	Yes ☐ No ☐
Loss Control NFPA 1001 5.3.13, 5.3.14	
5.3.13 Overhaul a fire scene, given personal protective equipment, attack line, hand tools, a flashlight, and an assignment, so that structural integrity is not compromised, all hidden fires are discovered, fire cause evidence is preserved, and the fire is extinguished. **(A) Requisite Knowledge.** Types of fire attack lines and water application devices most effective for overhaul, water application methods for extinguishment that limit water damage, types of tools and methods used to expose hidden fire, dangers associated with overhaul, obvious signs of area of origin or signs of arson, and reasons for protection of fire scene. **(B) Requisite Skills.** The ability to deploy and operate an attack line; remove flooring, ceiling, and wall components to expose void spaces without compromising structural integrity; apply water for maximum effectiveness; expose and extinguish hidden fires in walls, ceilings, and subfloor spaces; recognize and preserve obvious signs of area of origin and arson; and evaluate for complete extinguishment.	Yes ☐ No ☐
5.3.14 Conserve property as a member of a team, given salvage tools and equipment and an assignment, so that the building and its contents are protected from further damage. **(A) Requisite Knowledge.** The purpose of property conservation and its value to the public, methods used to protect property, types of and uses for salvage covers, operations at properties protected with automatic sprinklers, how to stop the flow of water from an automatic sprinkler head, identification of the main control valve on an automatic sprinkler system, forcible entry issues related to salvage, and procedures for protecting possible areas of origin and potential evidence. **(B) Requisite Skills.** The ability to cluster furniture; deploy covering materials; roll and fold salvage covers for reuse; construct water chutes and catch-alls; remove water; cover building openings, including doors, windows, floor openings, and roof openings; separate, remove, and relocate charred material to a safe location while protecting the area of origin for cause determination; stop the flow of water from a sprinkler with sprinkler wedges or stoppers; and operate a main control valve on an automatic sprinkler system.	Yes ☐ No ☐

Interior Operations – Firefighter	Competency Met
Live Fire Exterior NFPA 1001 5.3.7, 5.3.8, 5.3.10, 5.3.19	
5.3.7* Attack a passenger vehicle fire operating as a member of a team, given personal protective equipment, attack line, and hand tools, so that hazards are avoided, leaking flammable liquids are identified and controlled, protection from flash fires is maintained, all vehicle compartments are overhauled, and the fire is extinguished. **(A) Requisite Knowledge.** Principles of fire streams as they relate to fighting automobile fires; precautions to be followed when advancing hose lines toward an automobile; observable results that a fire stream has been properly applied; identifying alternative fuels and the hazards associated with them; dangerous conditions created during an automobile fire; common types of accidents or injuries related to fighting automobile fires and how to avoid them; how to access locked passenger, trunk, and engine compartments; and methods for overhauling an automobile. **(B) Requisite Skills.** The ability to identify automobile fuel type; assess and control fuel leaks; open, close, and adjust the flow and pattern on nozzles; apply water for maximum effectiveness while maintaining flash fire protection; advance $1_1/_2$ in. (38 mm) or larger diameter attack lines; and expose hidden fires by opening all automobile compartments.	Yes ☐ No ☐
5.3.8* Extinguish fires in exterior Class A materials, given fires in stacked or piled and small unattached structures or storage containers that can be fought from the exterior, attack lines, hand tools and master stream devices, and an assignment, so that exposures are protected, the spread of fire is stopped, collapse hazards are avoided, water application is effective, the fire is extinguished, and signs of the origin area(s) and arson are preserved. **(A) Requisite Knowledge.** Types of attack lines and water streams appropriate for attacking stacked, piled materials and outdoor fires; dangers — such as collapse — associated with stacked and piled materials; various extinguishing agents and their effect on different material configurations; tools and methods to use in breaking up various types of materials; the difficulties related to complete extinguishment of stacked and piled materials; water application methods for exposure protection and fire extinguishment; dangers such as exposure to toxic or hazardous materials associated with storage building and container fires; obvious signs of origin and cause; and techniques for the preservation of fire cause evidence. **(B) Requisite Skills.** The ability to recognize inherent hazards related to the material's configuration, operate handlines or master streams, break up material using hand tools and water streams, evaluate for complete extinguishment, operate hose lines and other water application devices, evaluate and modify water application for maximum penetration, search for and expose hidden fires, assess patterns for origin determination, and evaluate for complete extinguishment.	Yes ☐ No ☐

Interior Operations – Firefighter	Competency Met
5.3.10* Attack an interior structure fire operating as a member of a team, given an attack line, ladders when needed, personal protective equipment, tools, and an assignment, so that team integrity is maintained, the attack line is deployed for advancement, ladders are correctly placed when used, access is gained into the fire area, effective water application practices are used, the fire is approached correctly, attack techniques facilitate suppression given the level of the fire, hidden fires are located and controlled, the correct body posture is maintained, hazards are recognized and managed, and the fire is brought under control. **(A) Requisite Knowledge.** Principles of fire streams; types, design, operation, nozzle pressure effects, and flow capabilities of nozzles; precautions to be followed when advancing hose lines to a fire; observable results that a fire stream has been properly applied; dangerous building conditions created by fire; principles of exposure protection; potential longterm consequences of exposure to products of combustion; physical states of matter in which fuels are found; common types of accidents or injuries and their causes; and the application of each size and type of attack line, the role of the backup team in fire attack situations, attack and control techniques for grade level and above and below grade levels, and exposing hidden fires. **(B) Requisite Skills.** The ability to prevent water hammers when shutting down nozzles; open, close, and adjust nozzle flow and patterns; apply water using direct, indirect, and combination attacks; advance charged and uncharged $1_1/_2$ in. (38 mm) diameter or larger hose lines up ladders and up and down interior and exterior stairways; extend hose lines; replace burst hose sections; operate charged hose lines of $1_1/_2$ in. (38 mm) diameter or larger while secured to a ground ladder; couple and uncouple various handline connections; carry hose; attack fires at grade level and above and below grade levels; and locate and suppress interior wall and subfloor fires.	Yes ☐ No ☐
5.3.19* Combat a ground cover fire operating as a member of a team, given protective clothing, SCBA (if needed), hose lines, extinguishers or hand tools, and an assignment, so that threats to property are reported, threats to personal safety are recognized, retreat is quickly accomplished when warranted, and the assignment is completed. **(A) Requisite Knowledge.** Types of ground cover fires, parts of ground cover fires, methods to contain or suppress, and safety principles and practices. **(B) Requisite Skills.** The ability to determine exposure threats based on fire spread potential, protect exposures, construct a fire line or extinguish with hand tools, maintain integrity of established fire lines, and suppress ground cover fires using water.	Yes ☐ No ☐

Full Service Operations – Firefighter	Competency Met
All of NFPA 1001 – FF2 Competencies (except Hazmat and Medical Response) and with the addition of:	Yes ☐ No ☐
Live Fire Exterior and Interior	Yes ☐ No ☐
Hazmat Operations *(NFPA core competencies plus 6.6.1.1.2)*	Yes ☐ No ☐
6.6.1.1.2 The operations level responder assigned to perform product control at hazardous materials/ WMD incidents shall be trained to meet all competencies at the awareness level (*see Chapter 4*), all core competencies at the operations level (*see Chapter 5*), all mission-specific competencies for personal protective equipment (*see Section 6.2*), and all competencies in this section.	Yes ☐ No ☐

Team Leader Exterior & Interior	Competency Met
• Can utilize any training provider, including internal, that meets the competencies of NFPA 1021 – Fire Officer Professional Qualifications [Playbook: Page 16, note 3] ***Completion of the Operational Firefighter requirements for either the Exterior or Interior Service Level PLUS the following Competencies from NFPA 1021:***	Yes ☐ No ☐
Incident Command and Fire Attack NFPA 1021 4.1.1, 4.2.1, 4.2.2, 4.2.3	
4.1.1* General Prerequisite Knowledge. The organizational structure of the department; geographical configuration and characteristics of response districts; departmental operating procedures for administration, emergency operations, incident management system and safety; fundamentals of leadership; departmental budget process; information management and recordkeeping; the fire prevention and building safety codes and ordinances applicable to the jurisdiction; current trends, technologies, and socioeconomic and political factors that affect the fire service; cultural diversity; methods used by supervisors to obtain cooperation within a group of subordinates; the rights of management and members; agreements in force between the organization and members; generally accepted ethical practices, including a professional code of ethics; and policies and procedures regarding the operation of the department as they involve supervisors and members.	Yes ☐ No ☐
4.2.1 Assign tasks or responsibilities to unit members, given an assignment at an emergency incident, so that the instructions are complete, clear, and concise; safety considerations are addressed; and the desired outcomes are conveyed. **(A) Requisite Knowledge.** Verbal communications during emergency incidents, techniques used to make assignments under stressful situations, and methods of confirming understanding. **(B) Requisite Skills.** The ability to condense instructions for frequently assigned unit tasks based on training and standard operating procedures.	Yes ☐ No ☐
4.2.2 Assign tasks or responsibilities to unit members, given an assignment under nonemergency conditions at a station or other work location, so that the instructions are complete, clear, and concise; safety considerations are addressed; and the desired outcomes are conveyed. **(A) Requisite Knowledge.** Verbal communications under nonemergency situations, techniques used to make assignments under routine situations, and methods of confirming understanding. **(B) Requisite Skills.** The ability to issue instructions for frequently assigned unit tasks based on department policy.	Yes ☐ No ☐
4.2.3 Direct unit members during a training evolution, given a company training evolution and training policies and procedures, so that the evolution is performed in accordance with safety plans, efficiently, and as directed. **(A) Requisite Knowledge.** Verbal communication techniques to facilitate learning. **(B) Requisite Skills.** The ability to distribute issue-guided directions to unit members during training evolutions.	Yes ☐ No ☐

Team Leader Exterior & Interior	Competency Met
Pre-Incident Planning, Size-up and Incident Action Planning NFPA 1021 4.5.2, 4.5.3, 4.6, 4.6.1, 4.6.2	
4.5.2 Identify construction, alarm, detection, and suppression features that contribute to or prevent the spread of fire, heat, and smoke throughout the building or from one building to another, given an occupancy, and the policies and forms of the AHJ so that a pre-incident plan for any of the following occupancies is developed: (1) Public assembly (2) Educational (3) Institutional (4) Residential (5) Business (6) Industrial (7) Manufacturing (8) Storage (9) Mercantile (10) Special properties **(A) Requisite Knowledge.** Fire behavior; building construction; inspection and incident reports; detection, alarm, and suppression systems; and applicable codes, ordinances, and standards. **(B) Requisite Skills.** The ability to use evaluative methods and to communicate orally and in writing.	Yes ☐ No ☐
4.5.3 Secure an incident scene, given rope or barrier tape, so that unauthorized persons can recognize the perimeters of the scene and are kept from restricted areas, and all evidence or potential evidence is protected from damage or destruction. **(A) Requisite Knowledge.** Types of evidence, the importance of fire scene security, and evidence preservation. **(B) Requisite Skills.** The ability to establish perimeters at an incident scene.	Yes ☐ No ☐
4.6* Emergency Service Delivery. This duty involves supervising emergency operations, conducting pre-incident planning, and deploying assigned resources in accordance with the local emergency plan and according to the following job performance requirements.	
4.6.1 Develop an initial action plan, given size-up information for an incident and assigned emergency response resources, so that resources are deployed to control the emergency. **(A)* Requisite Knowledge.** Elements of a size-up, standard operating procedures for emergency operations, and fire behavior. **(B)* Requisite Skills.** The ability to analyze emergency scene conditions; to activate the local emergency plan, including localized evacuation procedures; to allocate resources; and to communicate orally.	Yes ☐ No ☐
4.6.2* Implement an action plan at an emergency operation, given assigned resources, type of incident, and a preliminary plan, so that resources are deployed to mitigate the situation. **(A) Requisite Knowledge.** Standard operating procedures, resources available for the mitigation of fire and other emergency incidents, an incident management system, scene safety, and a personnel accountability system. **(B) Requisite Skills.** The ability to implement an incident management system, to communicate orally, to manage scene safety, and to supervise and account for assigned personnel under emergency conditions.	Yes ☐ No ☐
Fire Ground Accountability NFPA 1021 4.6.1, 4.6.2	
4.6.1 Develop an initial action plan, given size-up information for an incident and assigned emergency response resources, so that resources are deployed to control the emergency. **(A)* Requisite Knowledge.** Elements of a size-up, standard operating procedures for emergency operations, and fire behavior. **(B)* Requisite Skills.** The ability to analyze emergency scene conditions; to activate the local emergency plan, including localized evacuation procedures; to allocate resources; and to communicate orally.	Yes ☐ No ☐

Team Leader Exterior & Interior	Competency Met
4.6.2* Implement an action plan at an emergency operation, given assigned resources, type of incident, and a preliminary plan, so that resources are deployed to mitigate the situation. **(A) Requisite Knowledge.** Standard operating procedures, resources available for the mitigation of fire and other emergency incidents, an incident management system, scene safety, and a personnel accountability system. **(B) Requisite Skills.** The ability to implement an incident management system, to communicate orally, to manage scene safety, and to supervise and account for assigned personnel under emergency conditions.	Yes ☐ No ☐
Live Fire – Exterior *(Recommended for Exterior Operations)* NFPA 1001 5.3.7, 5.3.8, 5.3.10	
5.3.7* Attack a passenger vehicle fire operating as a member of a team, given personal protective equipment, attack line, and hand tools, so that hazards are avoided, leaking flammable liquids are identified and controlled, protection from flash fires is maintained, all vehicle compartments are overhauled, and the fire is extinguished. **(A) Requisite Knowledge.** Principles of fire streams as they relate to fighting automobile fires; precautions to be followed when advancing hose lines toward an automobile; observable results that a fire stream has been properly applied; identifying alternative fuels and the hazards associated with them; dangerous conditions created during an automobile fire; common types of accidents or injuries related to fighting automobile fires and how to avoid them; how to access locked passenger, trunk, and engine compartments; and methods for overhauling an automobile. **(B) Requisite Skills.** The ability to identify automobile fuel type; assess and control fuel leaks; open, close, and adjust the flow and pattern on nozzles; apply water for maximum effectiveness while maintaining flash fire protection; advance $1_1/_2$ in. (38 mm) or larger diameter attack lines; and expose hidden fires by opening all automobile compartments.	Yes ☐ No ☐
5.3.8* Extinguish fires in exterior Class A materials, given fires in stacked or piled and small unattached structures or storage containers that can be fought from the exterior, attack lines, hand tools and master stream devices, and an assignment, so that exposures are protected, the spread of fire is stopped, collapse hazards are avoided, water application is effective, the fire is extinguished, and signs of the origin area(s) and arson are preserved. **(A) Requisite Knowledge.** Types of attack lines and water streams appropriate for attacking stacked, piled materials and outdoor fires; dangers — such as collapse — associated with stacked and piled materials; various extinguishing agents and their effect on different material configurations; tools and methods to use in breaking up various types of materials; the difficulties related to complete extinguishment of stacked and piled materials; water application methods for exposure protection and fire extinguishment; dangers such as exposure to toxic or hazardous materials associated with storage building and container fires; obvious signs of origin and cause; and techniques for the preservation of fire cause evidence. **(B) Requisite Skills.** The ability to recognize inherent hazards related to the material's configuration, operate handlines or master streams, break up material using hand tools and water streams, evaluate for complete extinguishment, operate hose lines and other water application devices, evaluate and modify water application for maximum penetration, search for and expose hidden fires, assess patterns for origin determination, and evaluate for complete extinguishment.	Yes ☐ No ☐

Team Leader Exterior & Interior	Competency Met
5.3.10* Attack an interior structure fire operating as a member of a team, given an attack line, ladders when needed, personal protective equipment, tools, and an assignment, so that team integrity is maintained, the attack line is deployed for advancement, ladders are correctly placed when used, access is gained into the fire area, effective water application practices are used, the fire is approached correctly, attack techniques facilitate suppression given the level of the fire, hidden fires are located and controlled, the correct body posture is maintained, hazards are recognized and managed, and the fire is brought under control. **(A) Requisite Knowledge.** Principles of fire streams; types, design, operation, nozzle pressure effects, and flow capabilities of nozzles; precautions to be followed when advancing hose lines to a fire; observable results that a fire stream has been properly applied; dangerous building conditions created by fire; principles of exposure protection; potential longterm consequences of exposure to products of combustion; physical states of matter in which fuels are found; common types of accidents or injuries and their causes; and the application of each size and type of attack line, the role of the backup team in fire attack situations, attack and control techniques for grade level and above and below grade levels, and exposing hidden fires. **(B) Requisite Skills.** The ability to prevent water hammers when shutting down nozzles; open, close, and adjust nozzle flow and patterns; apply water using direct, indirect, and combination attacks; advance charged and uncharged $1_1/_2$ in. (38 mm) diameter or larger hose lines up ladders and up and down interior and exterior stairways; extend hose lines; replace burst hose sections; operate charged hose lines of $1_1/_2$ in. (38 mm) diameter or larger while secured to a ground ladder; couple and uncouple various handline connections; carry hose; attack fires at grade level and above and below grade levels; and locate and suppress interior wall and subfloor fires.	Yes ☐ No ☐
Live Fire – Exterior & Interior *(Recommended for Interior Operations)*	Yes ☐ No ☐

Risk Management Officer	Competency Met
Completion of the Team Leader requirements for the Exterior Operations level PLUS the following courses (1 from each area):	Yes ☐ No ☐
EITHER Incident Action Planning NFPA 1021 4.6.1, 4.6.2 • *Requires a training program with subject matter covering areas such as strategies and tactics, fire ground command and emergency scene management* [Playbook: Page 16, note 5]	
4.6.1 Develop an initial action plan, given size-up information for an incident and assigned emergency response resources, so that resources are deployed to control the emergency. **(A)* Requisite Knowledge.** Elements of a size-up, standard operating procedures for emergency operations, and fire behavior. **(B)* Requisite Skills.** The ability to analyze emergency scene conditions; to activate the local emergency plan, including localized evacuation procedures; to allocate resources; and to communicate orally.	Yes ☐ No ☐
4.6.2* Implement an action plan at an emergency operation, given assigned resources, type of incident, and a preliminary plan, so that resources are deployed to mitigate the situation. **(A) Requisite Knowledge.** Standard operating procedures, resources available for the mitigation of fire and other emergency incidents, an incident management system, scene safety, and a personnel accountability system. **(B) Requisite Skills.** The ability to implement an incident management system, to communicate orally, to manage scene safety, and to supervise and account for assigned personnel under emergency conditions.	Yes ☐ No ☐
OR Incident Safety Officer NFPA 1521 6.1 – 6.7.2 *(operational)*	Yes ☐ No ☐
6.1 General Functions of the Incident Safety Officer. **6.1.1*** The incident safety officer (ISO) shall be integrated with the incident management system (IMS) as a command staff member, as specified in NFPA 1561, *Standard on Emergency Services Incident Management System*. **6.1.2*** Standard operating procedures (SOPs) shall define criteria for the response of a predesignated incident safety officer. **6.1.2.1** If the incident safety officer is designated by the incident commander, the fire department shall establish criteria for appointment based upon 6.1.1. **6.1.3*** The incident safety officer and assistant incident safety officer(s) shall be readily identifiable at the incident scene. **6.1.4*** Upon arrival or assignment as the incident safety officer at an incident, he or she shall obtain a situation-status briefing from the incident commander, that includes the incident action plan. **6.1.5** The incident safety officer shall monitor the incident action plan, conditions, activities, and operations to determine whether they fall within the criteria as defined in the fire department's risk management plan. **6.1.6** When the perceived risk(s) is not within the fire department's risk management criteria, the incident safety officer shall take action as outlined in Section 4.6. **6.1.7** The incident safety officer shall monitor the incident scene and report to the incident commander the status of conditions, hazards, and risks. **6.1.8** The incident safety officer shall ensure that the fire department's personnel accountability system is being utilized. **6.1.9*** The incident safety officer shall offer judgment to the incident commander on establishing control zones and no entry zones and ensure that established zones are communicated to all members present on the scene.	

Risk Management Officer	Competency Met
6.1.10 The incident safety officer shall evaluate motor vehicle incident scene traffic hazards and apparatus placement and take appropriate actions to mitigate hazards as described in Section 8.7 of NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*. **6.1.11** The incident safety officer shall monitor radio transmissions and stay alert to transmission barriers that could result in missed, unclear, or incomplete communication. **6.1.12*** The incident safety officer shall ensure that the incident commander establishes an incident scene rehabilitation tactical level management component during emergency operations. **6.1.13*** The incident safety officer shall communicate to the incident commander the need for assistant incident safety officers and/or technical specialists due to the need, size, complexity, or duration of the incident. **6.1.14** The incident safety officer or assistant incident safety officer shall survey and evaluate the hazards associated with the designation of a landing zone and interface with helicopters. **6.1.15*** The incident safety officer shall recognize the potential need for critical incident stress interventions and notify the incident commander of this possibility. **6.1.16** If the incident safety officer or an assistant safety officer needs to enter a hot zone or an environment that is immediately dangerous to life or health (IDLH), the incident safety officer or assistant safety officer shall be paired up with another member and check in with the entry control officer.	
6.2 Fire Suppression. **6.2.1** The incident safety officer shall meet the provisions of Section 6.2 during fire suppression operations. **6.2.2*** The incident safety officer shall ensure that a rapid intervention team meeting the criteria in Chapter 8 of NFPA 1500, is available and ready for deployment. **6.2.3** Where fire has involved a building(s) the incident safety officer shall advise the incident commander of hazards, collapse potential, and any fire extension in such building(s). **6.2.4** The incident safety officer shall evaluate visible smoke and fire conditions and advise the incident commander, tactical level management component's (TLMC) officers, and company officers on the potential for flashover, backdraft, blow-up, or other events that could pose a threat to operating teams. **6.2.5** The incident safety officer shall monitor the accessibility of entry and egress of structures and its effect on the safety of members conducting interior operations.	
6.3 Emergency Medical Service Operations. **6.3.1** The incident safety officer shall meet the provisions of Section 6.3 during emergency medical service (EMS) operations. **6.3.2** The incident safety officer shall ensure compliance with the department's infection control plan and NFPA 1581, *Standard on Fire Department Infection Control Program*, during emergency medical service operations. **6.3.3** The incident safety officer shall ensure that incident scene rehabilitation and critical incident stress management are established as needed at emergency medical service operations, especially mass casualty incidents (MCIs).	
6.4 Technical Rescue. **6.4.1** The incident safety officer shall meet the provisions of Section 6.4 during technical rescue operations. **6.4.2*** In cases where a designated incident safety officer does not meet the technician-level requirements of NFPA 1006, *Standard for Rescue Technician Professional Qualifications*, the incident commander shall appoint an assistant incident safety officer or a technical specialist who meets the technician-level requirements of NFPA 1006 to assist with incident safety officer functions. **6.4.3** The incident safety officer shall attend strategic and tactical planning sessions and provide input on risk assessment and member safety.	

Risk Management Officer	Competency Met
6.4.4* The incident safety officer shall ensure that a safety briefing is conducted and that an incident action plan and an incident safety plan are developed and made available to all members on the scene.	
6.5 Hazardous Materials Operations. **6.5.1** The incident safety officer shall meet the provisions of Section 6.5 during hazardous materials operations. **6.5.2*** In cases where a designated incident safety officer does not meet the technician-level requirements of NFPA 472, *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents*, the incident commander shall appoint an assistant incident safety officer or a technical specialist who meets the technician-level requirements of NFPA 472 to assist with incident safety officer functions. **6.5.3** The incident safety officer shall attend strategic and tactical planning sessions and provide input on risk assessment and member safety. **6.5.4*** The incident safety officer shall ensure that a safety briefing is conducted and that an incident action plan and an incident safety plan are developed and made available to all members on the scene. **6.5.5** The incident safety officer shall ensure that control zones are clearly marked and communicated to all members.	
6.6 Accident Investigation and Review. **6.6.1** Upon notification of a member injury, illness, or exposure, the incident safety officer shall immediately communicate this information to the incident commander to ensure that emergency medical care is provided. **6.6.2** The incident safety officer shall initiate the accident investigation procedures as required by the fire department. **6.6.3*** In the event of a serious injury, fatality, or other potentially harmful occurrence to a member, the incident safety officer shall request assistance from the health and safety officer.	
6.7 Post-Incident Analysis. **6.7.1*** The incident safety officer shall prepare a written report for the post-incident analysis that includes pertinent information about the incident relating to health and safety issues. **6.7.2*** The incident safety officer shall participate in the post incident analysis.	
EITHER FCABC/LGMA: Effective Fire Service Administration	Yes ☐ No ☐
OR Beyond Hoses and Helmets, or equivalent *(administrative)*	Yes ☐ No ☐

Company Fire Officer	Competency Met
Fire Officer 1 (NFPA 1021 in its entirety)	Yes ☐ No ☐
Incident Command 200	Yes ☐ No ☐
Fire Service Instructor 1 (NFPA 1041 Chapter 4)	Yes ☐ No ☐
4.1 General. **4.1.1** The Fire Service Instructor I shall meet the JPRs defined in Sections 4.2 through 4.5 of this standard.	Yes ☐ No ☐
4.2 Program Management. **4.2.1 Definition of Duty.** The management of basic resources and the records and reports essential to the instructional process.	
4.2.2 Assemble course materials, given a specific topic, so that the lesson plan and all materials, resources, and equipment needed to deliver the lesson are obtained. **(A) Requisite Knowledge.** Components of a lesson plan, policies and procedures for the procurement of materials and equipment, and resource availability. **(B) Requisite Skills.** None required.	Yes ☐ No ☐
4.2.3 Prepare requests for resources, given training goals and current resources, so that the resources required to meet training goals are identified and documented. **(A) Requisite Knowledge.** Resource management, sources of instructional resources and equipment. **(B) Requisite Skills.** Oral and written communication, forms completion.	Yes ☐ No ☐
4.2.4 Schedule single instructional sessions, given a training assignment, department scheduling procedures, instructional resources, facilities and timeline for delivery, so that the specified sessions are delivered according to department procedure. **(A) Requisite Knowledge.** Departmental scheduling procedures and resource management. **(B) Requisite Skills.** Training schedule completion.	Yes ☐ No ☐
4.2.5 Complete training records and report forms, given policies and procedures and forms, so that required reports are accurate and submitted in accordance with the procedures. **(A) Requisite Knowledge.** Types of records and reports required, and policies and procedures for processing records and reports. **(B) Requisite Skills.** Basic report writing and record completion.	Yes ☐ No ☐
4.3 Instructional Development. **4.3.1* Definition of Duty.** The review and adaptation of prepared instructional materials.	
4.3.2* Review instructional materials, given the materials for a specific topic, target audience, and learning environment, so that elements of the lesson plan, learning environment, and resources that need adaptation are identified. **(A) Requisite Knowledge.** Recognition of student limitations and cultural diversity, methods of instruction, types of resource materials, organization of the learning environment, and policies and procedures. **(B) Requisite Skills.** Analysis of resources, facilities, and materials.	Yes ☐ No ☐
4.3.3* Adapt a prepared lesson plan, given course materials and an assignment, so that the needs of the student and the objectives of the lesson plan are achieved. **(A)* Requisite Knowledge.** Elements of a lesson plan, selection of instructional aids and methods, and organization of the learning environment. **(B) Requisite Skills.** Instructor preparation and organizational skills.	Yes ☐ No ☐
4.4 Instructional Delivery. **4.4.1 Definition of Duty.** The delivery of instructional sessions utilizing prepared course materials.	

Company Fire Officer	Competency Met
4.4.2 Organize the classroom, laboratory, or outdoor learning environment, given a facility and an assignment, so that lighting, distractions, climate control or weather, noise control, seating, audiovisual equipment, teaching aids, and safety are considered. **(A) Requisite Knowledge.** Classroom management and safety, advantages and limitations of audiovisual equipment and teaching aids, classroom arrangement, and methods and techniques of instruction. **(B) Requisite Skills.** Use of instructional media and teaching aids	Yes ☐ No ☐
4.4.3 Present prepared lessons, given a prepared lesson plan that specifies the presentation method(s), so that the method (s) indicated in the plan are used and the stated objectives or learning outcomes are achieved, applicable safety standards and practices are followed, and risks are addressed. **(A)* Requisite Knowledge.** The laws and principles of learning, methods and techniques of instruction, lesson plan components and elements of the communication process, and lesson plan terminology and definitions; the impact of cultural differences on instructional delivery; safety rules, regulations, and practices; identification of training hazards; elements and limitations of distance learning; distance learning delivery methods; and the instructor's role in distance learning. **(B) Requisite Skills.** Oral communication techniques, methods and techniques of instruction, and utilization of lesson plans in an instructional setting.	Yes ☐ No ☐
4.4.4* Adjust presentation, given a lesson plan and changing circumstances in the class environment, so that class continuity and the objectives or learning outcomes are achieved. **(A) Requisite Knowledge.** Methods of dealing with changing circumstances. **(B) Requisite Skills.** None required.	Yes ☐ No ☐
4.4.5* Adjust to differences in learning styles, abilities, cultures, and behaviors, given the instructional environment, so that lesson objectives are accomplished, disruptive behavior is addressed, and a safe and positive learning environment is maintained. **(A)* Requisite Knowledge.** Motivation techniques, learning styles, types of learning disabilities and methods for dealing with them, and methods of dealing with disruptive and unsafe behavior. **(B) Requisite Skills.** Basic coaching and motivational techniques, correction of disruptive behaviors, and adaptation of lesson plans or materials to specific instructional situations.	Yes ☐ No ☐
4.4.6 Operate audiovisual equipment and demonstration devices, given a learning environment and equipment, so that the equipment functions properly. **(A) Requisite Knowledge.** Components of audiovisual equipment. **(B) Requisite Skills.** Use of audiovisual equipment, cleaning, and field level maintenance.	Yes ☐ No ☐
4.4.7 Utilize audiovisual materials, given prepared topical media and equipment, so that the intended objectives are clearly presented, transitions between media and other parts of the presentation are smooth, and media are returned to storage. **(A) Requisite Knowledge.** Media types, limitations, and selection criteria. **(B) Requisite Skills.** Transition techniques within and between media.	Yes ☐ No ☐
4.5 Evaluation and Testing. **4.5.1* Definition of Duty.** The administration and grading of student evaluation instruments.	
4.5.2 Administer oral, written, and performance tests, given the lesson plan, evaluation instruments, and evaluation procedures of the agency, so that bias or discrimination is eliminated, the testing is conducted according to procedures, and the security of the materials is maintained. **(A) Requisite Knowledge.** Test administration, agency policies, laws and policies pertaining to discrimination during training and testing, methods for eliminating testing bias, laws affecting records and disclosure of training information, purposes of evaluation and testing, and performance skills evaluation. **(B) Requisite Skills.** Use of skills checklists and oral questioning techniques.	Yes ☐ No ☐
4.5.3 Grade student oral, written, or performance tests, given class answer sheets or skills checklists and appropriate answer keys, so the examinations are accurately graded and properly secured. **(A) Requisite Knowledge.** Grading methods, methods for eliminating bias during grading, and maintaining confidentiality of scores. **(B) Requisite Skills.** None required.	Yes ☐ No ☐

Company Fire Officer	Competency Met
4.5.4 Report test results, given a set of test answer sheets or skills checklists, a report form, and policies and procedures for reporting, so that the results are accurately recorded, the forms are forwarded according to procedure, and unusual circumstances are reported. **(A) Requisite Knowledge.** Reporting procedures and the interpretation of test results. **(B) Requisite Skills.** Communication skills and basic coaching.	Yes ☐ No ☐
4.5.5* Provide evaluation feedback to students, given evaluation data, so that the feedback is timely; specific enough for the student to make efforts to modify behavior; and objective, clear, and relevant; also include suggestions based on the data. **(A) Requisite Knowledge.** Reporting procedures and the interpretation of test results. **(B) Requisite Skills.** Communication skills and basic coaching.	Yes ☐ No ☐
Emergency Scene Management (4.6.1, 4.6.2)	
4.6.1 Develop an initial action plan, given size-up information for an incident and assigned emergency response resources, so that resources are deployed to control the emergency. **(A)* Requisite Knowledge.** Elements of a size-up, standard operating procedures for emergency operations, and fire behavior. **(B)* Requisite Skills.** The ability to analyze emergency scene conditions; to activate the local emergency plan, including localized evacuation procedures; to allocate resources; and to communicate orally.	Yes ☐ No ☐
4.6.2* Implement an action plan at an emergency operation, given assigned resources, type of incident, and a preliminary plan, so that resources are deployed to mitigate the situation. **(A) Requisite Knowledge.** Standard operating procedures, resources available for the mitigation of fire and other emergency incidents, an incident management system, scene safety, and a personnel accountability system. **(B) Requisite Skills.** The ability to implement an incident management system, to communicate orally, to manage scene safety, and to supervise and account for assigned personnel under emergency conditions.	Yes ☐ No ☐

Appendix 5: Benchmark Survey Questionnaire

The survey was completed by the Department and the six benchmark fire departments: Central Saanich, Colwood, Powell River, Saltspring Island, Squamish and View Royal.

DEPARTMENT: [insert dept name for each survey]		
Population[99]	[insert pop. data from 2016 census]	
Size of primary fire protection response area		square kilometres
Size of area covered under service agreements		square kilometres
Size of road rescue area outside fire protection boundaries (if applicable)		square kilometres
Unique hazards within the response area:		
Natural Hazards (e.g. landslides, extreme cold, etc.)		
Industrial Hazards (e.g. transportation, storage, processing of dangerous goods)		
Number of exempt chief officers:		
Chief		
Deputy Chief		
Assistant Chief		
Other (describe)		
Other staff: Administration		
Number of IAFF staff:		
Captains		
Lieutenants		
Firefighters		
Fire Inspector		
Training Officer		
Public Educator		
Other (describe)		

[99] Source: Canadian Census Profile, 2016 Census

DEPARTMENT: [insert dept name for each survey]	
Number of Volunteers	
Captains	
Lieutenants	
Firefighters	
Number of fire halls	
On-duty minimum staffing number (describe times covered)	
Staffing of each hall – Exempt staff	
Staffing of each hall – Career (non-exempt) staff	
Volunteers/POC that respond from each hall	
Career staff shift schedule	
Duty Crew Model (describe composition/schedule)	
Declared Level of Service under the Playbook: Exterior, Interior or Full Service	
Has this been identified by the AHJ?	
Declaration done via Council policy or bylaw?	
Which Specialty Services are provided and to what training level (Awareness, Operations, Technician)?	
HazMat	
Rescue	
Technical	
Swift Water Rescue	
Ice Rescue	
High Angle	
Auto Extrication	
Confined Space	
Trench Rescue	

DEPARTMENT: [insert dept name for each survey]	
Annual Operating budgets:	
2018	
2019	
2020	
2021 (current)	
Paid on Call (remuneration) budget for 2021	
Annual Training budget for 2021	
Number of Apparatus:	
Engines	
Aerials	
Rescues	
Bush Trucks	
Tankers	
Hazmat	
Other	
Number of inspectable businesses/premises	
Number of inspections completed in 2020	
Total number of fire inspections required annually (based on premises and frequency required)	
Preplans:	
How many are complete?	
How many are still to be done?	
Total number of all calls for service in 2020	
Within the *total number of all calls* provide a breakdown of:	
Number of Fires by type:	
Structure	
Vehicle	
Brush	

DEPARTMENT: [insert dept name for each survey]	
Number of Road Rescue :	
No extrication required	
Extrication required	
Number of Non-Emergency Calls: (e.g. burning complaints, assist public, etc.)	
Number of Medical Responses	
Fire Underwriters' Survey (most recent):	
Date completed	
DPG Rating	
PFPC Rating	
Volunteer / Paid on Call:	
Association or Society?	
Annual Budget	
Sources of funds[100]	
Agreements (**provide name of community(s) covered**)	
Mutual Aid • identify each as POC/Volunteer, composite or Career department	
Automatic Aid	
Service (including First Nations)	

[100] e.g. Grant in Aid, Community Service Agreement, Annual Stipend, Payroll dues deduction

Appendix 6: Consultant Backgrounds

Dave Mitchell

Dave Mitchell retired as Division Chief, Communications in 1998 from Vancouver Fire & Rescue Services following a career spanning 32 years. During this time, he was responsible for managing the emergency call taking and dispatch for the Vancouver and Whistler Fire Departments. In 1998, Dave was hired by E-Comm, Emergency Communications BC as its first Director of Operations. In this role he was a member of the founding senior management team and was responsible for the transition of the Regional 9-1-1 Control Centre staff from the Vancouver Police Department to its current location at 3301 East Pender in June 1999.

He left E-Comm in June 2000 to work as a consultant, and since that time has managed the development of corporate, strategic and operational plans for a number of clients. As principal of DMA, Dave participates on all projects undertaken by the company either as the lead consultant or by providing his expertise at an advisory or support level.

Dave holds a Bachelor of Arts Degree (Geography) from Simon Fraser University in addition to a diploma from their Executive Management Development Program. He is past Chair of the Board of Directors of the Vancouver General Hospital and University of British Columbia Hospital Foundation, is currently Chair of the Justice Institute of British Columbia Foundation, and a member of the Fire Chiefs' Association of British Columbia, and the Canadian Association of Management Consultants.

Gordon Anderson

Gordon Anderson retired in 2019 with 29 years in the fire service, serving for the last five as the British Columbia Fire Commissioner. In this role, he was the senior fire authority for the Province providing advice to government and supporting local government fire services, as well as dealing with fire service issues at the national level.

During this time he implemented a new Structure Firefighter Training Standard (the Playbook), modernized and expanded the wildland interface Structure Protection Program in partnership with the BC Wildfire Service and the Fire Chiefs’ Association of BC and, with extensive stakeholder input, successfully developed and passed new provincial legislation to repeal and replace the current Fire Services Act (implementation pending).

Prior to joining the Office of the Fire Commissioner, he spent 13 years with volunteer fire departments, five years with the Victoria City Police and 22 years in Esquimalt Fire Rescue (a combination police/fire public safety department) where he rose through the ranks to finish his last six years as Deputy Fire Chief. He has extensive experience as a career department Chief Training Officer and 12 years as a contract instructor for the Justice Institute of BC’s firefighter training program and all four levels of the Fire Officer Certificate Program.

Gord has a Bachelor of Arts degree from the University of Victoria and NFPA Fire Officer Level 4 certification; in 2018 he earned a Bachelor of Public Safety Administration degree. He also

holds certification as an Executive Chief Fire Officer and is a Fellow at the Institution of Fire Engineers (United Kingdom). He is past-President of the Council of Canadian Fire Marshals and Fire Commissioners as well as having served on the governance board of the Canadian Public Safety Operations Organization.

Jim Cook

Jim Cook is an experienced professional with over 38 years of experience in the fire service. He has extensive knowledge and experience with budgets, labour relations, fire operations, strategic planning, executive leadership, project management, community engagement, and organizational change. Jim began his career in the New Westminster Fire Department. He was promoted to the position of Deputy Chief in 2001. In 2008, Jim was appointed to the position of Fire Chief in West Vancouver where he worked to improve the mutual and automatic aid agreements in the region including with Lions Bay. His work there also included transitioning the department to the E-Comm Wide Area Radio System. During his career, Jim has worked on several committees and boards including the BC Municipal Pension Plan, BC Investment Management Corporation, Vancouver Hospital Foundation, BC Fire & Life Safety Education Program, First Responder Program and the BC Fire Chiefs Association. He is also a past-President of the Greater Vancouver Fire Chiefs Association.

Wayne Humphry

Wayne has over 40 years' experience with the BC fire service. He retired in 2009 from Vancouver Fire/Rescue after a career spanning 31 years. During this time, Wayne served in fire suppression, rising to the rank of Battalion Chief. He also worked extensively with Vancouver Fire's training division as an instructor and Division Chief between 1996 and 2009. Based on his work in both roles he has extensive experience in fire rescue emergency operations, specialty teams, logistical planning and budgeting, training and development, facilitation, and project creation and management. In addition to his work with Vancouver Fire he has been an instructor at the Justice Institute of BC, at UBC's Sauder School of Business as well as for Capilano University.

Wayne has developed and delivered in-house Firefighter and Fire Officer Development seminars, including ProBoard certified programs, for various career and volunteer/paid-on-call fire departments throughout BC, Alberta, Manitoba, and the Northwest Territories. His training expertise includes Firefighter I & II, Fire Officer Level 1, 2 and 3 programs – Emergency Incident Management (BCEMS/ICS, Command Post and EOC operations, fire behavior, strategies and tactics); Incident Safety Officer; Rapid Intervention Teams; Fire Service Instructor; and Live Fire Exercises Levels 1, 2 & 3. Wayne was also a Fire and Rescue Services Subject Matter Expert for the JI's Critical Incident Simulation Centre's program development for multi-agency, multi-jurisdictional incident management training.

Ian MacDonald

Ian MacDonald is a retired corporate securities lawyer who practiced international corporate law in Canada and the United Kingdom. Ian was a partner with a major Toronto firm in the 1990s,

and moved to England in 1997, where he became the managing partner of a specialist litigation and intellectual property practice. He retired from active practice in 2004.

Ian has worked with Dave Mitchell & Associates since 2007 and has participated in almost all the major fire and emergency service projects since that time. He assists with the analysis of the legal and governance structures affecting fire and emergency services, ranging from establishment and operational bylaws to WorkSafe issues.