



# Tobiano Volunteer Fire Department

## Fire Protection Area Expansion to

### Cherry Creek

Dave Mitchell & Associates Ltd.

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# Contents

Executive Summary .....	1
Background.....	3
Project Scope .....	4
Fire Underwriters Survey .....	6
Current Fire Protection Area .....	8
Proposed Expanded Fire Protection Area .....	9
Tobiano Volunteer Fire Department .....	13
Level of Service and Organizational Structure .....	13
Fire Hall.....	14
Fire Apparatus and Equipment .....	14
Staffing and Training .....	15
Volunteer Recruitment and Retention.....	15
Project Scope: Summary .....	17
Summary and Conclusions .....	19
Appendix 1: Playbook Training Requirements for Exterior Operations Departments .....	20

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## Executive Summary

The Thompson Nicola Regional District (the “TNRD”) is considering the expansion of the Tobiano Volunteer Fire Department (the “TVFD” or the “Department”) to include the Cherry Creek area to the east of the Department’s existing service boundary. This expansion would see the addition of a further 327 properties to the TVFD service area. Such expansion has been contemplated for some time, and was considered one of the priorities identified in the 2014 Official Community Plan (“OCP”) for the area.<sup>1</sup>

The Department’s existing fire hall is located at the western limit of its current service area. A site for a replacement fire hall is still to be finally confirmed (land has been offered to the TNRD by a Cherry Creek developer), but it will be moved to the east on the Trans Canada Highway.<sup>2</sup> By moving the hall east, it will enable the Department to provide coverage into Cherry Creek without losing coverage of the existing properties in Tobiano.

For the purposes of this analysis, we have used a location that is immediately adjacent to Highway 1, approximately 0.9 kilometres west of the intersection of Gardi Road. This location is flat, has good access to Highway 1, and would provide adequate space for a fire hall. The location would enable the Department to provide service to the existing Tobiano service area, as well as any expanded service into Cherry Creek.

The analysis that follows is based on a detailed site review undertaken to understand the nature and extent of the proposed additional service area and potential fire hall location.<sup>3</sup> It also considers whether residential property owners in the proposed new service area may potentially achieve a reduction in fire insurance premiums based on the Department’s rating from the Fire Underwriters.

One of the goals when determining an appropriate site for a new fire hall, is to ensure that the requirements of the Fire Underwriters are being met. The Fire Underwriters have a number of minimum requirements for a fire department to be rated and a property in its service area to be considered protected, including an assessment of the fire department (including staffing, equipment, apparatus, fire hall, training and water supply), and the distance from a rated fire hall to the residential or commercial/multi-family property. The maximum travel distance by road from a fire hall to residential property is eight kilometres, and for commercial/multi-family properties, five kilometres, beyond which a property is considered unprotected.

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<sup>1</sup> TNRD, *Cherry Creek – Savona Official Community Plan, 2014* (established under: *Cherry Creek/Savona Official Community Plan Bylaw No. 2472*), at pp. 8, 38, 69 and 72.

<sup>2</sup> Approximately at Lat. 50.719404 by Long. 120.653231: see Figure 1 in the Background section.

<sup>3</sup> The current review included a site visit on 17 April 2022; all calculations of travel distance and elevation were developed using a Garmin GPS unit and all mapping created using ESRI ArcGIS Online. Shape files for the fire protection area were provided by the TNRD. In addition to the site visits, this review examined relevant bylaws and other background information provided by the TNRD as well as requirements of the Fire Underwriters.

The proposed location for the replacement fire hall would mean that all of the existing Tobiano service area remains within five kilometres of the hall. It also would provide eight-kilometre coverage to a majority of the proposed new Cherry Creek properties, with most of the remaining properties falling with 13 kilometres.

If service expansion is approved by the area residents, the TNRD and the Department will need to confirm the site, and construct at least a two-bay fire hall, with suitable provision for storage, administration and training.

The project budget for the new hall should include various one-time costs that will need to be incurred by the Department to address the administrative, legal, human resources and clerical requirements associated with managing the design, procurement and construction of the new hall. There also will be a need to budget for the following:

- a water tender;
- appropriate refill sites in the expanded service area (which lacks fire hydrants); and
- a recruitment drive and costs associated with the training up of new members, to address the current staffing deficit.

## Background

Cherry Creek is an unincorporated area located west of Kamloops and east of the Tobiano fire service area. Cherry Creek is anticipating significant residential development over the coming years, and the issue of fire protection has been one of concern since at least the last update to the area OCP in 2014. The portion of the Cherry Creek area that would be included in the Tobiano fire protection area would add some 327 parcels to the service area.

The Department's current service area was established pursuant to Bylaw No. 2656 in 2018.<sup>4</sup> The Department requires a new fire hall, and authorization was given by service area residents to the TNRD to borrow up to \$1.0 million for the construction of such hall, when the service was converted from an association-operated department.<sup>5</sup> The existing service area is linear, running north of and beside Highway 1, and designed to cover the residential development (and any commercial buildings) built around the Tobiano Golf Course. The existing service area comprises some 268 parcels and is shown in Figure 1 below:

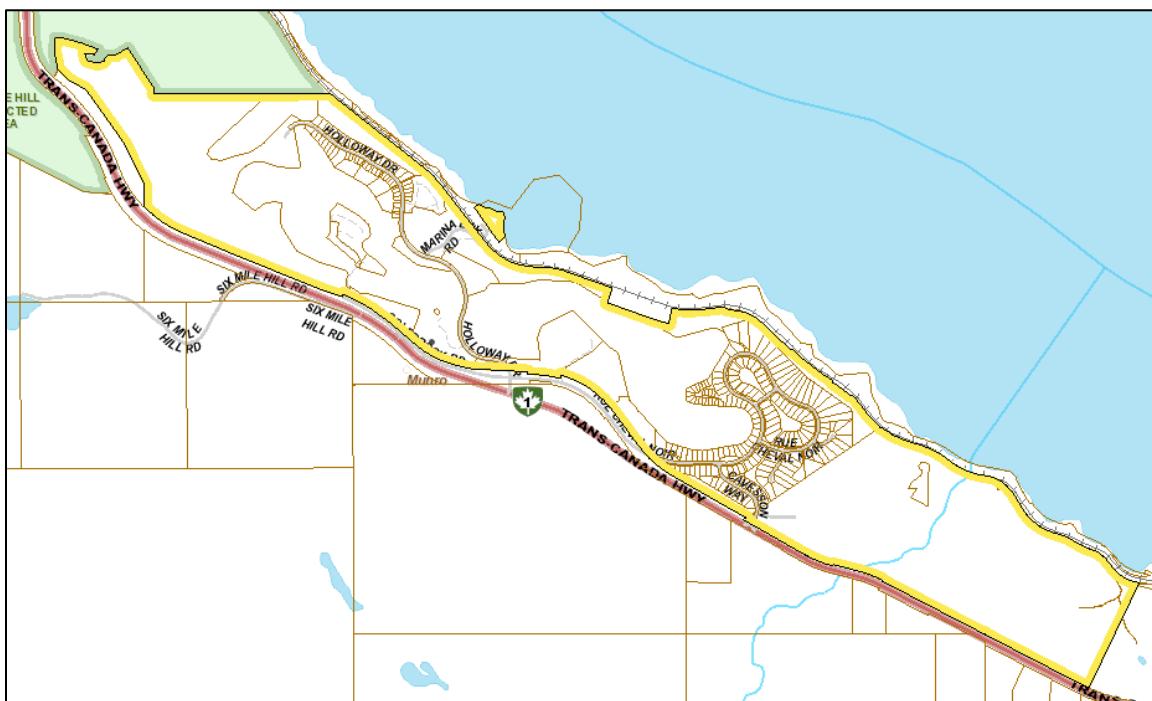


Figure 1: TVFD Current Service Area

The TNRD is considering expanding the TVFD service area eastward to include portions of the unincorporated area known as Cherry Creek, and relocating the fire hall accordingly.

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<sup>4</sup> In 2018, the Department moved from a society-operated fire service to one run directly by the TNRD. At that time, a new service establishment bylaw was passed – *Tobiano Fire Protection Service Area Establishment Bylaw No. 2656, 2018* – and the previous, 2007 establishment bylaw was repealed, along with its amendments.

<sup>5</sup> TNRD, *Tobiano Fire Protection Service Loan Authorization Bylaw No. 2657, 2018* (“Bylaw No. 2657”).

## Project Scope

This report examines and analyzes the following:

- the boundaries of the proposed expanded service area and the number of properties and structures that would be covered;
- the specific services or scope of services proposed to be provided in the new service area (e.g., structural fire suppression, fire protection, public education, medical first responder, and road rescue);
- the required infrastructure, apparatus and equipment needed to deliver the proposed service;
- the number of volunteers required to deliver the proposed services;
- a summary of the training levels required to carry out the proposed services in accordance with the training standards set under the *Fire Services Act* and the requirements of the *Workers Compensation Act*;
- a review of the Fire Underwriters' issues affecting the service expansion; and
- a budget to establish and maintain the proposed services (including start-up and ongoing costs).

The results of the feasibility study will be presented at a public meeting to determine the interest in moving forward with a service expansion process.

The areas being considered for inclusion in an expanded fire protection area are illustrated in Figure 2 which shows the current TVFD fire hall in the upper left, the proposed new TVFD fire hall location and the new fire protection area in orange.

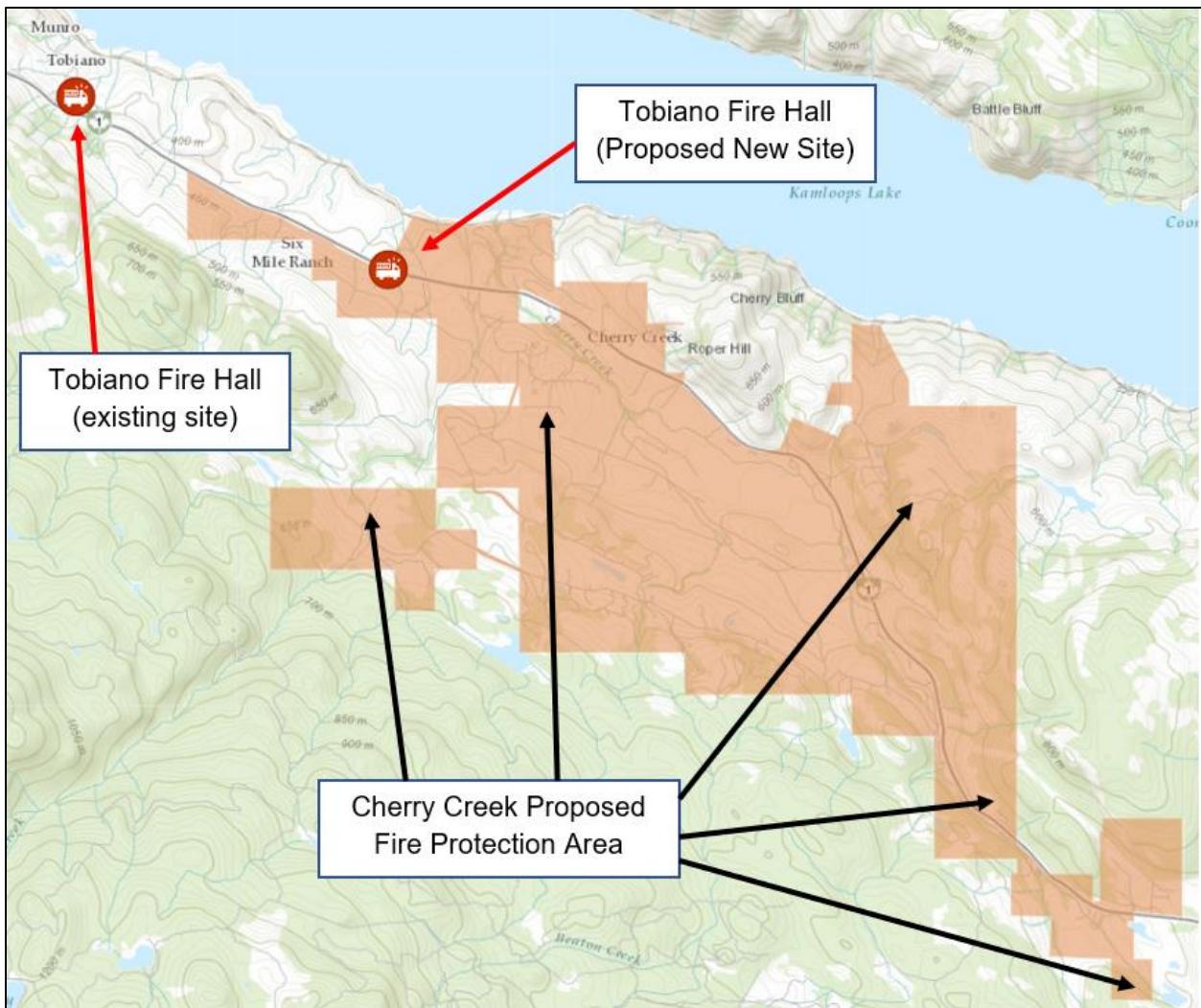


Figure 2: Proposed Cherry Creek Fire Protection Area (orange); Location of Proposed Tobiano Fire Hall and Existing Fire Hall.

A location for the replacement fire hall has been proposed for a property in Tobiano on the north side of Highway 1, approximately 0.9 kilometres west of Gardi Road. The property being considered would provide a suitable amount of room for a fire hall, including associated training.

However, as the TVFD relies on volunteer responders, one of the key requirements for consideration will be the minimum number of prospective volunteer firefighters who live nearby and would be able to respond in a timely fashion. Additionally, the travel distances to boundaries of the expanded fire protection area need to be assessed. Both of these issues will be considered by the Fire Underwriters when setting a rating for the expanded service area, which rating will determine whether the costs of fire insurance for these areas may potentially be reduced.

## Fire Underwriters Survey

The Fire Underwriters are a national organization, the primary purpose of which is to establish the Dwelling Protection Grade (“DPG”) and Public Fire Protection Classification (“PFPC”) for each community in the country. Under the Fire Underwriters’ system, residential properties are subject to the DPG rating, while multi-family and commercial properties are subject to the PFPC rating. One of the cost-benefit analyses involved when deciding on investing in fire protection, is the savings realized on insurance costs versus the tax cost of the fire protection. In general, particularly for volunteer and paid-on-call departments, the insurance savings arising from a well-rated department will significantly exceed the tax cost of the fire service.

The DPG rating is based on a five-point scale, as shown below:

*Table 1: DPG Ratings*

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. Savings in the range of 40 – 50 % are typical.
3A 3B(S) 3B(L) <sup>6</sup>	Protected	Progressively greater savings on insurance. Fully protected status typically means a savings of 50-60+% on insurance costs.
2	Protected	
1	Protected	

We understand from TNRD staff that the Department is currently rated as DPG 4 and has achieved a very creditable PFPC 7 rating for commercial and multi-family properties.

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<sup>6</sup> 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 particular department has been accredited for “large diameter hose lay,” which doubles the reach from a fire hydrant from 300 metres to 600 metres for residential properties.

If a fire department is rated by the Fire Underwriters, it is then necessary to determine whether a particular property is considered protected. For a residential property to be considered protected, it must be within a maximum of eight kilometres of a recognized fire hall.

The PFPC rating for commercial and multifamily properties is on a 10-point scale, where “10” is unprotected and “1” is the best score available. It is more challenging for smaller departments to score well on the PFPC rating, unless a hydrant system is present. The table below shows the estimated savings as the rating improves.<sup>7</sup>

*Table 2: Estimated Savings with PFPC Improvement*

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%

For the Department to meet Fire Underwriters’ requirements, the main hall must have a triple combination pumper and a mobile water supply, with a total water carrying capacity between the two units of at least 1,500 Imperial Gallons (6,820 litres). In general, the apparatus must be less than 20 years old to be included in the rating. The Department is required to have a minimum of 15 regularly responding, trained members, plus a chief officer. If a water supply is present (i.e., fire hydrants), that system must meet Fire Underwriters’ requirements for flows, reserves and redundancy.<sup>8</sup>

The rating system is complex. For a more complete consideration of the various factors which are applied by the Fire Underwriters, see the relevant section of the Consultants’ 2017 report to the TNRD: “Fire Department Reviews: Main Report.”<sup>9</sup>

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<sup>7</sup> Again, this table is drawn from a 2015 Fire Underwriters’ report.

<sup>8</sup> Fire Underwriters, *Water Supply for Public Fire Protection* (1999).

<sup>9</sup> Dave Mitchell & Associates Ltd., “Fire Department Reviews: Main Report,” (October 2017), pp. 58 – 66, at: <https://loonlakecommunity.ca/wp-content/uploads/2017/12/TNRD-Reviews-Main-Report-October-2017.pdf> (the “2017 Report”).

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## Current Fire Protection Area

Fire protection services for the existing service area are established under Bylaw No. 2656. The existing fire service area is fully within the five-kilometre limit contemplated by the Fire Underwriters' system as shown in Figure 3, whether from the existing fire hall or the proposed new location at the eastern edge of Tobiano.<sup>10</sup> As such, relocating the fire hall to the east will not have an impact on the existing service area's Fire Underwriters' rating. The eight-kilometre coverage extends both west and north-west from the existing service area.

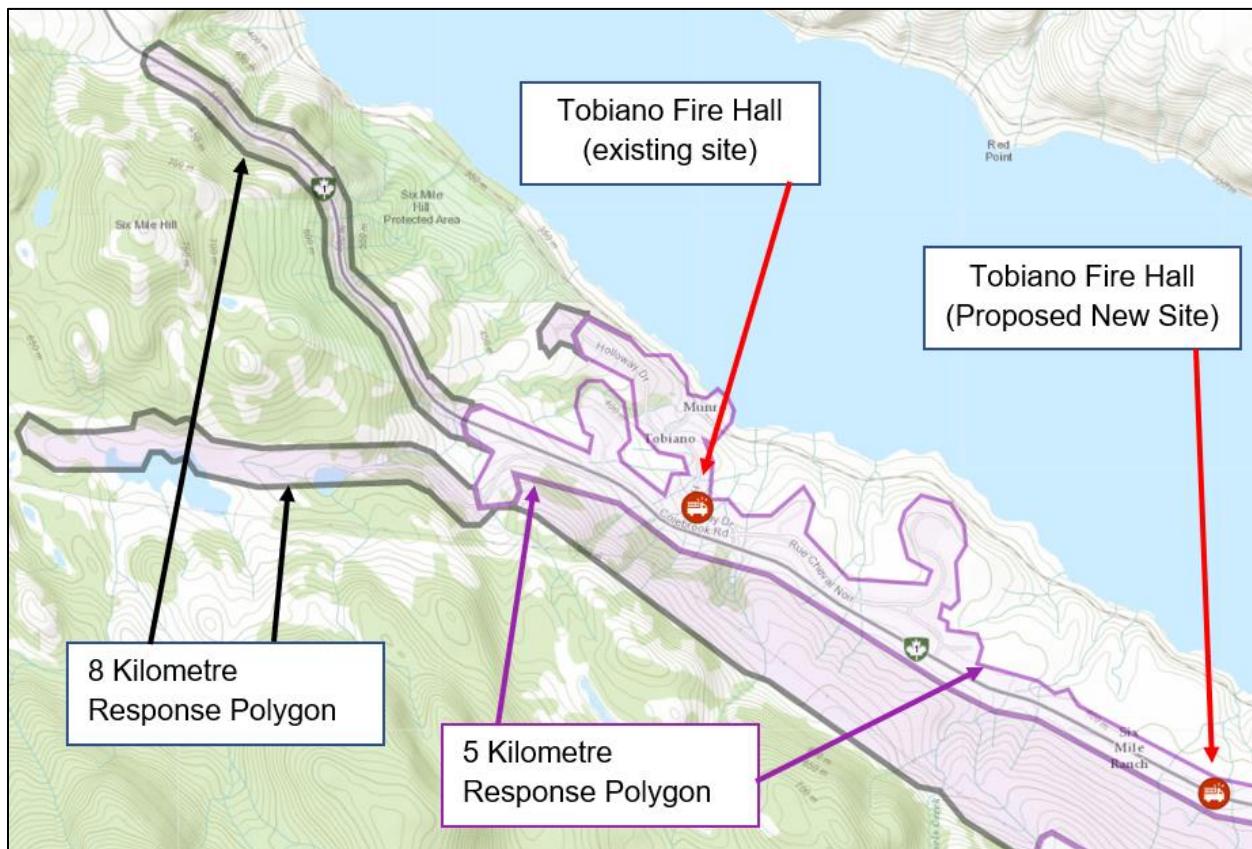


Figure 3: Tobiano Fire Protection Area with 5 Kilometre Polygon (purple) and 8 Kilometre Polygon (black).

<sup>10</sup> The Fire Underwriters require multi-family, commercial and industrial properties to be within five kilometres of a recognized fire hall to be treated as protected.

## Proposed Expanded Fire Protection Area

The proposed Cherry Creek additions to the existing Tobiano service area are shown in Figure 4. These areas would potentially become part of the TVFD's overall fire protection area, serviced primarily by a relocated fire hall to be built on the property to be provided at the east end of the Tobiano service area, adjacent to Highway 1. The TVFD would respond to all incidents for Tobiano and Cherry Creek from this relocated hall.

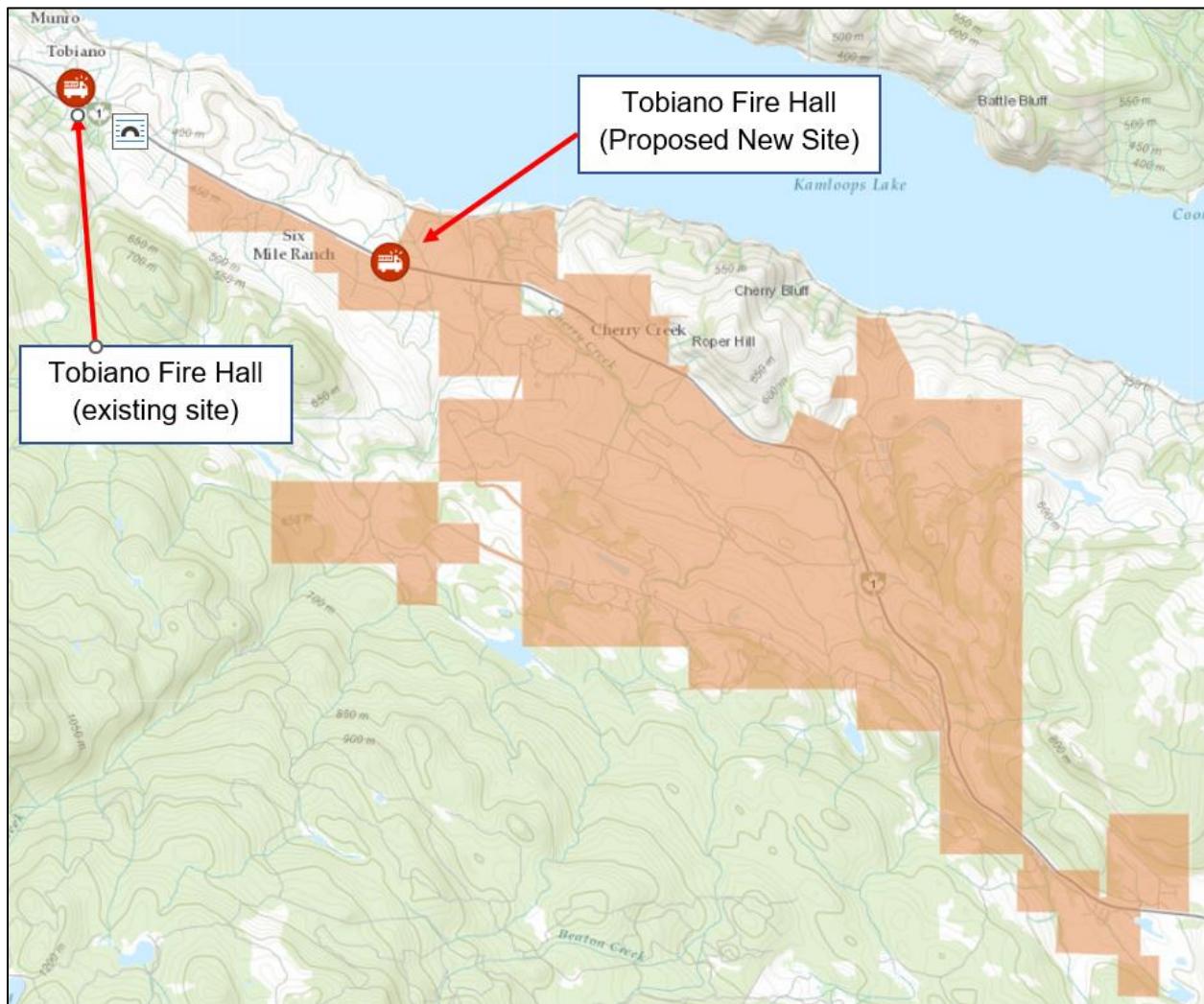


Figure 4: Proposed Expanded Fire Protection Area for Cherry Creek (orange), showing the Current and Proposed Site for the Tobiano Fire Hall.

Figure 5 illustrates the five- and eight-kilometre limits for Cherry Creek from the proposed location of the new fire hall. The majority of the 234 parcels in the additional service area will fall within eight kilometres of the proposed new fire hall. Some of the eastern-most portions, however, are more than eight kilometres distant, and are therefore beyond the limit specified by the Fire Underwriters.

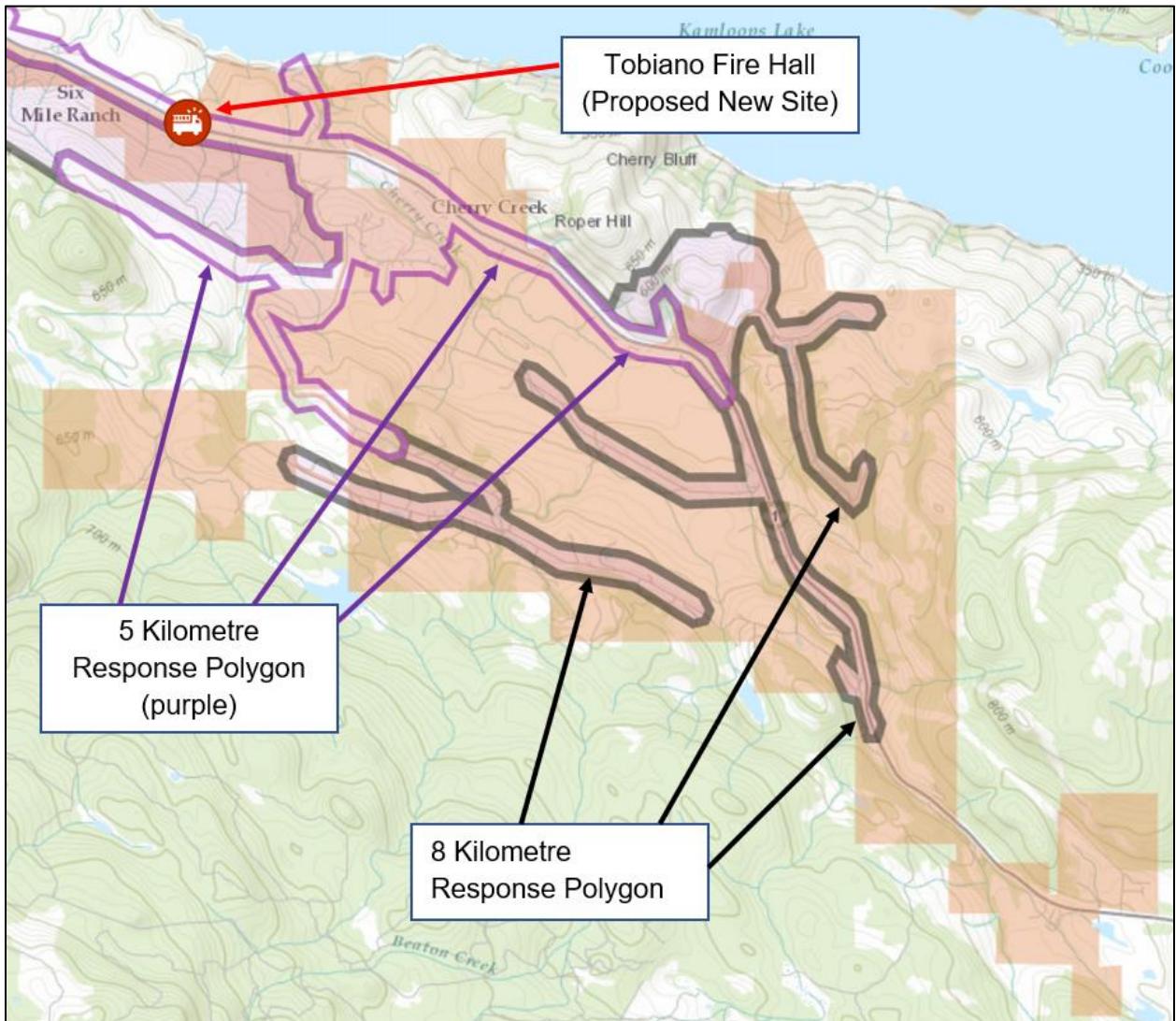


Figure 5: Cherry Creek FUS Coverage from Proposed Tobiano Fire Hall, five-kilometre polygon (purple) and eight-kilometre polygon (black).

In our experience, however, individual insurance underwriters have, in some jurisdictions, provided at least partial credit for single family residences within 13 kilometres in rural areas.<sup>11</sup> Figure 6 shows the 13-kilometre response limit from the proposed new Tobiano fire hall.

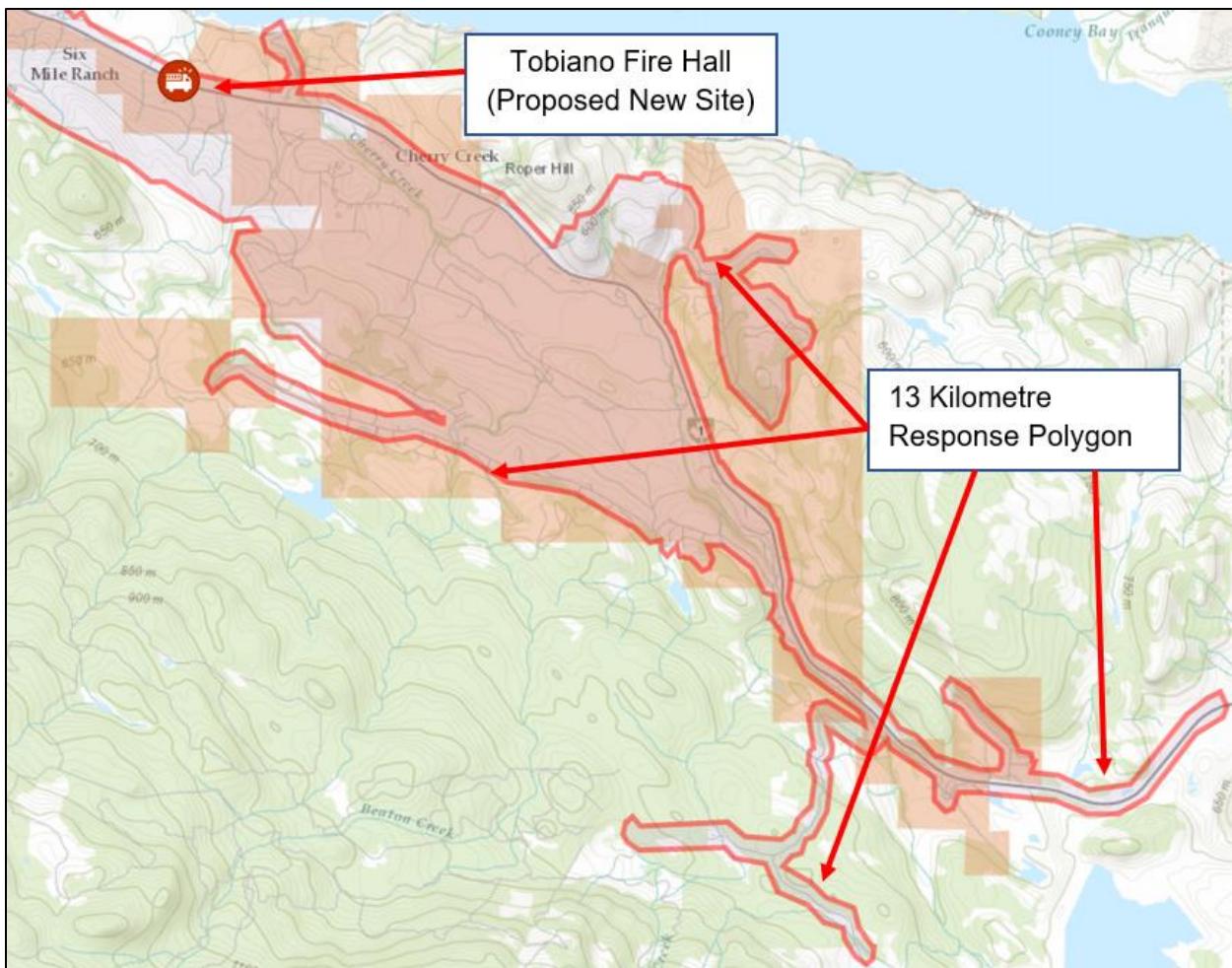


Figure 6: Cherry Creek FUS Coverage from Proposed Tobiano Fire Hall, thirteen-kilometre polygon (red).

<sup>11</sup> Individual insurers use the Fire Underwriters' ratings as a guide – they are not bound to follow them, and can choose to treat properties as protected (or partially protected), even if they are beyond the limits ordinarily specified.

Such coverage for Cherry Creek appears to reach all but the very south-east portion west of Hughes Lake, as shown in Figure 7. The point at which the road network stops is 12.2 Kilometres from the proposed fire hall.

At the point at which the road network is extended further south-east, it should then provide coverage within 13 kilometres as shown in the straight line projection in Figure 7.



*Figure 7: Detail of the south-east portion of the proposed fire protection area for Cherry Creek. The red polygon at this point (red flag) is at the limit of the current road network and is calculated as being 12.2 kilometres from the proposed fire hall. The straight line projection in blue measures the further distance from this point to the south-east limit of the proposed response area, is approximately 0.8 kilometres and thus would be within 13 kilometres.*

# Tobiano Volunteer Fire Department

## Level of Service and Organizational Structure

The Department was reviewed in the Consultants' 2017 Report, which noted the following:

The Department was established in 2007 and is situated approximately 32 kilometres west of Kamloops. It provides service to the resort area of Tobiano within a portion of Electoral Area "J" of the Thompson-Nicola Regional District [...] and is operated by the Tobiano Resort Association (the "Association"). The TVFD has a complement of seven members, all of whom are active responding members. This number is far below that which is required to operate a functional fire department and Tobiano does not meet the minimum staffing requirements for a ratable department under Fire Underwriters' [...] criteria.

The Department conducts fire suppression duties only. Given its isolated geographic location, the Department has no formal mutual aid agreements and relies solely upon its own apparatus and members.

The Department operates out of a vehicle bay contained within the Tobiano Resort's maintenance building and shares the facility with the maintenance group.

The Department operates as an Exterior Operations Service Level department; a formal declaration of this fact has been made by the Association which is the Department's governing body.

Since that report, the Department has transitioned to become a TNRD department and it currently operates with a Fire Chief, a Deputy Chief and three Captains in addition to seven firefighters. This is a significant improvement from 2017, but still several members short of a full complement required by the Fire Underwriters. Any expansion of the service area should be accompanied by a recruitment drive, particularly aimed at the newly added residents. The goal should be to add a minimum of four new members; ideally six or seven more members would be preferred, to account for future attrition.

The legal structure for the Department is now fairly standard given the manner in which the TNRD operates its fire services. As noted above, Bylaw No. 2656 authorized the service, set the boundaries of the service area, and specified the maximum taxation rate on land and improvements to support the cost of operations.

Bylaw No. 2656 will need to be revised to expand the boundaries to include the proposed new areas in Cherry Creek in Electoral Area J. The proposed service expansion, however, is material: it more than doubles the size of the service area and number of properties being protected. It also will require that the new properties help fund the construction of the new fire hall, as contemplated under Bylaw No. 2657.

The Department is operating at the “Exterior Operations Service Level” under the Provincial training standards (the “Playbook”) set by the Office of the Fire Commissioner. This declared level of service will not change as a result of the expansion of the service area.

## Fire Hall

A two-bay fire hall of approximately 3,000 square feet would meet the needs of the Department. It will require administrative space, space for members’ training needs, and be able to house an Engine and a Tender. It will need storage room for firefighter bunker gear (“PPE”) (ideally separated from the apparatus bays to prevent contamination of the PPE with diesel exhaust), as well as for SCBA cylinders, spare hose and other small equipment. For members, there should be showers to permit decontamination following a fire response, and locker space. The space for the fire hall should also include parking for the full complement of volunteers and a reasonable area outside for running training evolutions.

Fire apparatus for the expanded areas will need to include an Engine and a Tender. PPE for up to 20 volunteers should be provided along with six complete SCBA units with spare bottles. Communications equipment should include sufficient portable and mobile radios.

## Fire Apparatus and Equipment

The chart below identifies the fire apparatus currently in use by the Department:

*Table 3: TVFD Apparatus*

Type	Manufacturer	Date of Manufacture	Pumping Capacity IGPM <sup>12</sup>	Tank Capacity (Gallons)	NFPA Compliant	ULC Compliant
Engine	E-One	2007	1,050	800	yes, when built	yes, when built

The portions of Cherry Creek to be added to the Department’s service area are not hydrant-protected. As such, the Department will require a water tender, which will further impact its need for additional staffing and training. The capital cost of such apparatus needs to be included in the planning for any service area expansion. In addition:

- the Department will need to identify or establish locations where it can reliably refill the tender in the new service area; and
- the TNRD should require that any major new developments in the Cherry Creek area have Fire Underwriters-compliant water systems installed as part of any approval process.

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<sup>12</sup> Imperial Gallons per Minute.

TNRD staff report that the Department's ladders are inspected and tested annually in accordance with s. 31.37 of the *Occupational Health and Safety Regulation* and NFPA 1932.<sup>13</sup> The Department conducts annual SCBA flow testing and mask fit testing through Guillevin. It shares in the TNRD hose-testing program and now conducts annual hose tests. Since the 2017 Report and transition to a TNRD service, the Department's management of equipment maintenance requirements has improved markedly, and they are to be congratulated for their efforts in this area.

The TVFD currently operates out of the Tobiano Resort maintenance facility. The Department shares the building with maintenance staff, including the office space and training area. During the day, the Department's engine is often moved outside to make room for gang-mowers that are being repaired in the shop. The nature of the existing fire hall would likely be considered non-compliant by the Fire Underwriters – it was this recognized need for a proper fire hall that led to the 2018 approval of capital funding for a new hall under Bylaw No. 2657.

## Staffing and Training

The Department currently operates with a roster of 12 members. The Department trains toward operating as an Exterior Operations Service Level fire department as per the requirements of the current version of the Playbook. The Playbook identifies the minimum training competencies required for the role of a "Team Leader", which is defined in the Playbook as being the individual responsible for a specific team's functions/activities in both exterior and interior operations.

The current training records indicate that four of the Department's members meet these requirements. Under the Playbook, the competencies / qualifications for Fire Officer 1 (company officer) are the requirements of NFPA 1021 Fire Officer 1,<sup>14</sup> and those for the role of Team Leader are primarily the requirements from the "Emergency Service Delivery" sections of NFPA 1021 Fire Officer 1.

## Volunteer Recruitment and Retention

As noted above, the Department's staffing has improved since its 2018 transition to a TNRD department. However, it is still three members short of the 15-firefighter minimum complement required by the Fire Underwriters. The combination of raising the number of active members plus moving to a properly designed fire hall, should help raise the Department's DPG rating in

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<sup>13</sup> National Fire Protection Association, *Standard on Use, Maintenance, and Service Testing of In-Service Fire Department Ground Ladders* (2015 ed.). The regulation actually refers to the 1989 edition of the standard, as WorkSafe BC has failed to update its references in Part 31 for decades. The common approach is to use the most recent edition of the relevant NFPA standard.

<sup>14</sup> National Fire Protection Association, *NFPA 1021: Standard for Fire Officer Professional Qualifications* (2020 ed.).

its existing service area from DPG 4 to DPG 3A, and enable it to qualify for a DPG 3B rating in the new Cherry Creek area.

As part of the proposed transition and expansion, we would recommend a concerted recruitment drive be undertaken, particularly in the newly-added Cherry Creek area. The TNRD should help guide and direct this effort, and assist with recruit training processes. One issue to consider is whether the Department's approach to benefits and/or remuneration for its members needs to be reviewed. Based on discussions we have had with other local governments, benefit packages may actually prove a bigger attraction (and have greater retention power) than some form of call-out pay. One of the major economic transitions over the past decade or so has been the development of a "work-from-home" gig economy, a process that has been accelerated by the pandemic. Many of these workers lack traditional health and dental benefits packages – which makes the provision of such benefits more significant than some small remuneration for practices or call-outs.

That being said, to move the Department to a full complement of properly trained members as quickly as possible, the TNRD and Department should consider whether to offer new recruits (and existing members who need to upgrade or confirm their skills) a relatively intensive training program spread over several weekends, with some level of compensation being paid for successful completion. This investment in training could help the Department quickly bridge its staffing gap.

## Project Scope: Summary

Task	Comment
The boundaries of the proposed expanded service area and the number of properties and structures that would be covered	Boundaries of the expanded service area are shown, based on shape files provided by the TNRD. All calculations of distances developed using ESRI and by direct measurement. A total of 327 properties would be covered, <sup>15</sup> of which 234 contain structures, and 93 are currently bare land.
A detailed summary of the specific services or scope of services proposed to be provided in the new service area (e.g. structural fire suppression, fire protection, public education, medical first responder, road rescue)	This was discussed with the Manager of Fire Protection Services and it is proposed that the services delivered in the proposed area be the same as currently provided to Tobiano.
A list of the required infrastructure, apparatus and equipment required to deliver the proposed service	A two-bay fire hall of approximately 3,000 square feet would meet the needs of the Department. It will require administrative space, space for members' training needs, and be able to house an Engine and a Tender. It will need storage room for firefighter PPE (ideally separated from the apparatus bays to prevent contamination of the PPE with diesel exhaust), as well as for SCBA cylinders, spare hose and other small equipment. For members, there should be showers to enable decontamination following a fire response, and locker space. The space for the fire hall should also include parking for the full complement of volunteers and a reasonable area outside for training evolutions. Fire apparatus for the expanded areas should include an Engine and a Tender. PPE for up to 20 volunteers should be provided along with six complete SCBA units with spare bottles. Communications equipment should include sufficient portable and mobile radios.
The number of volunteers required to deliver the proposed services	The plan for the fire hall should be a minimum of 15 firefighters plus a chief officer, and the Department but should budget for 20 to include trainee firefighters.
A summary of the training levels required to carry out the proposed services in accordance with the <i>Fire Services Act</i> and the <i>Workers Compensation Act</i>	The current level of service for the TVFD is Exterior Service Operations Level, and this would continue to apply to the expanded service area. The detailed requirements were reviewed as part of the Consultant's report in 2017 and are also found at Appendix 1.

<sup>15</sup> Data provided by the TNRD.

Task	Comment
The availability and sources of a water supply in the proposed service area	Cherry Creek does not have fire hydrants and so a Tender will be required. The Department will need to identify and/or establish sites within the expanded service area where the water tender can reliably be refilled all year round.

## Summary and Conclusions

The TVFD is an Exterior Operations Service Level department, whose service area currently covers the Tobiano resort area in the TNRD's Electoral Area J. The Department transitioned to a TNRD-operated department in 2018, at which time authorization was secured to borrow the funds needed to construct a new fire hall, as the Department lacked a standards-compliant building. The TNRD has indicated that it would like to see the new hall completed in 2023.

The TNRD is reviewing the impact of building the new TVFD fire hall just past the eastern limit of the existing service area, and expanding the Department's fire protection to cover portions of Cherry Creek, also in Electoral Area J. The existing service establishment bylaw, Bylaw No. 2656, will need to be amended to address the boundary extension, if the service expansion is approved by the residents.

In addition to the new fire hall, such a service expansion will necessitate the acquisition of a water tender, as the Cherry Creek properties are not hydrant-protected. Reliable water sources within Cherry Creek for refilling the water tender will need to be identified and/or constructed.

At the same time, it will be necessary to address the current staffing shortage in the Department, which is some four members short of its full complement. We recommend that the TNRD work with the Department to target the residents in the Cherry Creek area, and invest in some intensive training programs to bring the new recruits up to qualification as quickly as possible. Ideally, the Department would seek to raise its staffing to 20 firefighters, providing it with a margin to allow for new recruits who are in-training and normal attrition in the future.

We have been advised that the Department's existing service area is rated DPG 4 (for residential properties) and PFPC 7 (for commercial and multi-family properties) by the Fire Underwriters. Building a new fire hall at the location identified in this report will not affect this rating for Tobiano residents, as all of the existing service area will still be within five kilometres of the new hall. Indeed, the construction of a new fire hall and the recommended increase in staffing may well result in the DPG rating improving to DPG 3A.

The proposed service area covering Cherry Creek, however, extends more than eight kilometres from the proposed hall location. For properties which are more than eight kilometres but less than 13 kilometres from the hall, it is possible that insurers, on an individual basis, will grant a partial credit for fire protection.

# Appendix 1: Playbook Training Requirements for Exterior Operations Departments

## 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 <b>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</b>	
<b>4.2.1 Definition of Duty.</b> The management of basic resources and the records and reports essential to the instructional process.	
<b>4.2.2</b> 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. <b>(A) Requisite Knowledge.</b> Components of a lesson plan, policies and procedures for the procurement of materials and equipment, and resource availability. <b>(B) Requisite Skills.</b> None required.	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.2.3</b> Prepare requests for resources, given training goals and current resources, so that the resources required to meet training goals are identified and documented. <b>(A) Requisite Knowledge.</b> Resource management, sources of instructional resources and equipment. <b>(B) Requisite Skills.</b> Training schedule completion.	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.2.4</b> 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. <b>(A) Requisite Knowledge.</b> Departmental scheduling procedures and resource management. <b>(B) Requisite Skills.</b> Training schedule completion.	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.3.2*</b> 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. <b>(A) Requisite Knowledge.</b> Recognition of student limitations and cultural diversity, methods of instruction, types of resource materials, organization of the learning environment, and policies and procedures. <b>(B) Requisite Skills.</b> Analysis of resources, facilities, and materials	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.3.3*</b> 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. <b>(A)* Requisite Knowledge.</b> Elements of a lesson plan, selection of instructional aids and methods, and organization of the learning environment. <b>(B) Requisite Skills.</b> Instructor preparation and organizational skills.	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.4.1 Definition of Duty.</b> The delivery of instructional sessions utilizing prepared course materials.	
<b>4.4.2</b> 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. <b>(A) Requisite Knowledge.</b> Classroom management and safety, advantages and limitations of audiovisual equipment and teaching aids, classroom arrangement, and methods and techniques of instruction. <b>(B) Requisite Skills.</b> Use of instructional media and teaching aids.	Yes <input type="checkbox"/> No <input type="checkbox"/>

Train the Trainer	Competency Met
<p><b>4.4.3</b> 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.</p> <p><b>(A)* Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> Oral communication techniques, methods and techniques of instruction, and utilization of lesson plans in an instructional setting.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.4.4*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Methods of dealing with changing circumstances.</p> <p><b>(B) Requisite Skills.</b> None required</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>4.5.1*</b> <b>Definition of Duty.</b> The administration and grading of student evaluation instruments.	
<p><b>4.5.2</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> Use of skills checklists and oral questioning techniques.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.5.3</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Grading methods, methods for eliminating bias during grading, and maintaining confidentiality of scores.</p> <p><b>(B) Requisite Skills.</b> None required</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.5.5*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Reporting procedures and the interpretation of test results.</p> <p><b>(B) Requisite Skills.</b> Communication skills and basic coaching.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No

Competency Met	Exterior Operations – Firefighter
	<b>Emergency Scene Traffic</b> <b>NFPA 1001 5.3.3</b> <p><b>5.3.3*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> The ability to use personal protective clothing, deploy traffic and scene control devices, dismount apparatus, and operate in the protected work areas as directed.</p>
	<b>Safety &amp; Communications</b> <b>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</b> <p><b>5.1 General.</b> 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, <i>Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents</i>.</p> <p><b>5.1.1 General Knowledge Requirements.</b> 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, <i>Standard on Fire Department Occupational Safety and Health Program</i>.</p> <p><b>5.1.2 General Skill Requirements.</b> 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.</p> <p><b>5.2 Fire Department Communications.</b> 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.</p> <p><b>5.2.1*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Procedures for reporting an emergency; departmental SOPs for taking and receiving alarms, radio codes, or procedures; and information needs of dispatch center.</p> <p><b>(B) Requisite Skills.</b> The ability to operate fire department communications equipment, relay information, and record information.</p> <p><b>5.2.2</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Fire department procedures for answering nonemergency telephone calls.</p> <p><b>(B) Requisite Skills.</b> The ability to operate fire station telephone and intercom equipment.</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No	

Competency Met	
Exterior Operations – Firefighter	
<p><b>5.2.3</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Departmental radio procedures and etiquette for routine traffic, emergency traffic, and emergency evacuation signals.</p> <p><b>(B) Requisite Skills.</b> The ability to operate radio equipment and discriminate between routine and emergency traffic.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>5.3.2*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> The ability to use each piece of provided safety equipment.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>5.3.17</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>5.3.18</b> Turn off building utilities, given tools and an assignment, so that the assignment is safely completed.</p> <p><b>(A) Requisite Knowledge.</b> Properties, principles, and safety concerns for electricity, gas, and water systems; utility disconnect methods and associated dangers; and use of required safety equipment.</p> <p><b>(B) Requisite Skills.</b> The ability to identify utility control devices, operate control valves or switches, and assess for related hazards.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>PPE and Self Contained Breathing Apparatus</b>	
<b>NFPA 1001 5.1.2, 5.2, 5.3, 5.3.1, 5.3.2, 5.5.1</b>	
<p><b>5.1.2 General Skill Requirements.</b> 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.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>5.2 Fire Department Communications.</b> 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.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>5.3 Fireground Operations.</b> 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.</p>	
<p><b>5.3.1*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> 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.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No

Competency Met	Exterior Operations – Firefighter
<p><b>5.3.2*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> The ability to use each piece of provided safety equipment.</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p><b>5.5.1</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures.</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Ropes and Knots</b> NFPA 1001 5.1.2, 5.3.20, 5.5.1	
<p><b>5.1.2 General Skill Requirements.</b> 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.</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p><b>5.3.20</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> The ability to hoist tools using specific knots based on the type of tool.</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p><b>5.5.1</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures.</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>

Competency Met	Competency Met
<p><b>Fire Streams, Hose and Appliances</b>  <b>NFPA 1001 5.3.7, 5.3.8, 5.5.1, 5.5.2</b></p> <p><b>5.3.7*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> 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 <math>1\frac{1}{2}</math> 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.</p>	<p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>
<p><b>5.3.8*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> 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</p>	<p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>
<p><b>5.5.1</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures.</p>	<p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>

Competency Met	
Section	Competency
<b>Exterior Operations – Firefighter</b>	<b>Competency Met</b>
<b>5.5.2</b> 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. <b>(A) Requisite Knowledge.</b> Departmental procedures for noting a defective hose and removing it from service, cleaning methods, and hose rolls and loads. <b>(B) Requisite Skills.</b> 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 <input type="checkbox"/> No <input type="checkbox"/>
<b>Ventilation</b> <b>NFPA 1001 5.3.11, 5.5.1</b>	
<b>5.3.11</b> 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. <b>(A) Requisite Knowledge.</b> 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>(B) Requisite Skills.</b> 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 <input type="checkbox"/> No <input type="checkbox"/>
<b>5.5.1</b> 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. <b>(A) Requisite Knowledge.</b> 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>(B) Requisite Skills.</b> The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures.	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Water Supply</b> <b>NFPA 1001 5.3.15, 5.5.1, 5.5.2</b>	
<b>5.3.15*</b> 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. <b>(A) Requisite Knowledge.</b> 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>(B) Requisite Skills.</b> 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 <input type="checkbox"/> No <input type="checkbox"/>
<b>5.5.1</b> 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. <b>(A) Requisite Knowledge.</b> 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>(B) Requisite Skills.</b> The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures	Yes <input type="checkbox"/> No <input type="checkbox"/>

Competency Met	
Exterior Operations – Firefighter	
<b>5.5.2</b> 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. <b>(A) Requisite Knowledge.</b> Departmental procedures for noting a defective hose and removing it from service, cleaning methods, and hose rolls and loads. <b>(B) Requisite Skills.</b> 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 <input type="checkbox"/> No <input type="checkbox"/>
<b>Ladders</b> <b>NFPA 1001 5.3.6, 5.5.1</b>  <b>5.3.6*</b> 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. <b>(A) Requisite Knowledge.</b> 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>(B) Requisite Skills.</b> 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 <input type="checkbox"/> No <input type="checkbox"/>
<b>5.5.1</b> 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. <b>(A) Requisite Knowledge.</b> 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>(B) Requisite Skills.</b> The ability to select correct tools for various parts and pieces of equipment, follow guidelines, and complete recording and reporting procedures.	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Rehabilitation Area (REHAB)</b> <b>NFPA 1001 5.1.1, NFPA 1500, NFPA 1584</b>  <b>5.1.1 General Knowledge Requirements.</b> 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, <i>Standard on Fire Department Occupational Safety and Health Program</i> .	Yes <input type="checkbox"/> No <input type="checkbox"/>
+ <b>NFPA 1500</b> Standard on Occupational Safety and Health Program	Yes <input type="checkbox"/> No <input type="checkbox"/>
+ <b>NFPA 1584</b> Standard on the Rehabilitation Process for Members During Emergency Operations and Training Exercises	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Introduction to Basic Fire Behavior and Building Construction</b> <b>NFPA 220, NFPA 921, NFPA 1001 5.3.11, 5.3.12, 5.3.13 NFPA 5000</b>	

Competency Met	
Exterior Operations – Firefighter	
<p><b>5.3.11</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> 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.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>5.3.12</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> 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.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>5.3.13</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> 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.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
+ NFPA 220 Standard on Types of Building Construction	<input type="checkbox"/> Yes <input type="checkbox"/> No
+ NFPA 921 Guide for Fire and Explosion Investigations	<input type="checkbox"/> Yes <input type="checkbox"/> No
+ NFPA 5000 Building Construction and Safety Code	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Dangerous Goods or Hazmat Awareness (from NFPA 472)</b> <ul style="list-style-type: none"> <li>• Can utilize any training provider, including internal, that meets the competencies of NFPA 472 – Awareness Level [Playbook: Page 16, note1]</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No

Exterior Operations – Firefighter	Competency Met
<b>Gas &amp; Electrical Safety for Firefighters</b> ( <i>supplied by a BC Utility utilizing an evaluation mechanism</i> ) <ul style="list-style-type: none"> <li>• 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]</li> </ul>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Incident Command System 100</b> ( <i>from BCERMS curriculum</i> ) <ul style="list-style-type: none"> <li>• Can utilize any training provider, including internal, using certified training and evaluation based upon the BCEMS model. [Playbook: Page 16, note 3]</li> </ul>	Yes <input type="checkbox"/> No <input type="checkbox"/>

Team Leader Exterior & Interior	Competency Met
<ul style="list-style-type: none"> <li>Can utilize any training provider, including internal, that meets the competencies of NFPA 1021 – Fire Officer Professional Qualifications [Playbook: Page 16, note 3]</li> </ul> <p><i>Completion of the Operational Firefighter requirements for either the Exterior or Interior Service Level <u>PLUS</u> the following Competencies from NFPA 1021:</i></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Incident Command and Fire Attack</b> <b>NFPA 1021 4.1.1, 4.2.1, 4.2.2, 4.2.3</b>	
<p><b>4.1.1*</b> <b>General Prerequisite Knowledge.</b> 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.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.2.1</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Verbal communications during emergency incidents, techniques used to make assignments under stressful situations, and methods of confirming understanding.</p> <p><b>(B) Requisite Skills.</b> The ability to condense instructions for frequently assigned unit tasks based on training and standard operating procedures.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.2.2</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Verbal communications under nonemergency situations, techniques used to make assignments under routine situations, and methods of confirming understanding.</p> <p><b>(B) Requisite Skills.</b> The ability to issue instructions for frequently assigned unit tasks based on department policy.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.2.3</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Verbal communication techniques to facilitate learning.</p> <p><b>(B) Requisite Skills.</b> The ability to distribute issue-guided directions to unit members during training evolutions.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No

Team Leader Exterior & Interior	Competency Met
<b>Pre-Incident Planning, Size-up and Incident Action Planning</b> <b>NFPA 1021 4.5.2, 4.5.3, 4.6, 4.6.1, 4.6.2</b> <p><b>4.5.2</b> 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:</p> <ul style="list-style-type: none"> <li>(1) Public assembly</li> <li>(2) Educational</li> <li>(3) Institutional</li> <li>(4) Residential</li> <li>(5) Business</li> <li>(6) Industrial</li> <li>(7) Manufacturing</li> <li>(8) Storage</li> <li>(9) Mercantile</li> <li>(10) Special properties</li> </ul> <p><b>(A) Requisite Knowledge.</b> Fire behavior; building construction; inspection and incident reports; detection, alarm, and suppression systems; and applicable codes, ordinances, and standards.</p> <p><b>(B) Requisite Skills.</b> The ability to use evaluative methods and to communicate orally and in writing.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.5.3</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Types of evidence, the importance of fire scene security, and evidence preservation.</p> <p><b>(B) Requisite Skills.</b> The ability to establish perimeters at an incident scene.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.6*</b> <b>Emergency Service Delivery.</b> 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.</p> <p><b>4.6.1</b> 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.</p> <p><b>(A)* Requisite Knowledge.</b> Elements of a size-up, standard operating procedures for emergency operations, and fire behavior.</p> <p><b>(B)* Requisite Skills.</b> The ability to analyze emergency scene conditions; to activate the local emergency plan, including localized evacuation procedures; to allocate resources; and to communicate orally.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.6.2*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> 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.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Fire Ground Accountability</b> <b>NFPA 1021 4.6.1, 4.6.2</b> <p><b>4.6.1</b> 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.</p> <p><b>(A)* Requisite Knowledge.</b> Elements of a size-up, standard operating procedures for emergency operations, and fire behavior.</p> <p><b>(B)* Requisite Skills.</b> The ability to analyze emergency scene conditions; to activate the local emergency plan, including localized evacuation procedures; to allocate resources; and to communicate orally.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No

Team Leader Exterior & Interior	Competency Met
<p><b>4.6.2*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> 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.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No <input checked="" type="checkbox"/>
<p><b>Live Fire – Exterior (Recommended for Exterior Operations)</b></p> <p><b>NFPA 1001 5.3.7, 5.3.8, 5.3.10</b></p>	
<p><b>5.3.7*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> 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 1½ in. (38 mm) or larger diameter attack lines; and expose hidden fires by opening all automobile compartments.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No <input checked="" type="checkbox"/>
<p><b>5.3.8*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> 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.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No <input checked="" type="checkbox"/>

Team Leader Exterior & Interior	Competency Met
<p><b>5.3.10*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> 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<math>\frac{1}{2}</math> 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<math>\frac{1}{2}</math> 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.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Live Fire – Exterior &amp; Interior</b> ( <i>Recommended for Interior Operations</i> )	<input type="checkbox"/> Yes <input type="checkbox"/> No

Risk Management Officer	Competency Met
<i>Completion of the Team Leader requirements for the Exterior Operations level <u>PLUS</u> the following courses (1 from each area):</i>	<i>Yes <input type="checkbox"/> No <input type="checkbox"/></i>
<b>EITHER</b>	
<b>Incident Action Planning</b> <b>NFPA 1021 4.6.1, 4.6.2</b> <ul style="list-style-type: none"> <li>• <i>Requires a training program with subject matter covering areas such as strategies and tactics, fire ground command and emergency scene management</i> [Playbook: Page 16, note 5]</li> </ul> <p><b>4.6.1</b> 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.  <b>(A)* Requisite Knowledge.</b> Elements of a size-up, standard operating procedures for emergency operations, and fire behavior.  <b>(B)* Requisite Skills.</b> The ability to analyze emergency scene conditions; to activate the local emergency plan, including localized evacuation procedures; to allocate resources; and to communicate orally.</p> <p><b>4.6.2*</b> 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.  <b>(A) Requisite Knowledge.</b> 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>(B) Requisite Skills.</b> 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.</p>	<i>Yes <input type="checkbox"/> No <input type="checkbox"/></i>
<b>OR</b>	
<b>Incident Safety Officer</b> <b>NFPA 1521 6.1 – 6.7.2 (<i>operational</i>)</b> <p><b>6.1 General Functions of the Incident Safety Officer.</b></p> <p><b>6.1.1*</b> The incident safety officer (ISO) shall be integrated with the incident management system (IMS) as a command staff member, as specified in NFPA 1561, <i>Standard on Emergency Services Incident Management System</i>.</p> <p><b>6.1.2*</b> Standard operating procedures (SOPs) shall define criteria for the response of a predesignated incident safety officer.</p> <p><b>6.1.2.1</b> If the incident safety officer is designated by the incident commander, the fire department shall establish criteria for appointment based upon 6.1.1.</p> <p><b>6.1.3*</b> The incident safety officer and assistant incident safety officer(s) shall be readily identifiable at the incident scene.</p> <p><b>6.1.4*</b> 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.</p> <p><b>6.1.5</b> 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.</p> <p><b>6.1.6</b> 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.</p> <p><b>6.1.7</b> The incident safety officer shall monitor the incident scene and report to the incident commander the status of conditions, hazards, and risks.</p> <p><b>6.1.8</b> The incident safety officer shall ensure that the fire department's personnel accountability system is being utilized.</p>	<i>Yes <input type="checkbox"/> No <input type="checkbox"/></i>

Risk Management Officer	Competency Met
<p><b><u>6.1.9*</u></b> 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.</p> <p><b><u>6.1.10</u></b> 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, <i>Standard on Fire Department Occupational Safety and Health Program</i>.</p> <p><b><u>6.1.11</u></b> The incident safety officer shall monitor radio transmissions and stay alert to transmission barriers that could result in missed, unclear, or incomplete communication.</p> <p><b><u>6.1.12*</u></b> The incident safety officer shall ensure that the incident commander establishes an incident scene rehabilitation tactical level management component during emergency operations.</p> <p><b><u>6.1.13*</u></b> 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.</p> <p><b><u>6.1.14</u></b> 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.</p> <p><b><u>6.1.15*</u></b> The incident safety officer shall recognize the potential need for critical incident stress interventions and notify the incident commander of this possibility.</p> <p><b><u>6.1.16</u></b> 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.</p>	
<p><b>6.2 Fire Suppression.</b></p> <p><b><u>6.2.1</u></b> The incident safety officer shall meet the provisions of Section 6.2 during fire suppression operations.</p> <p><b><u>6.2.2*</u></b> 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.</p> <p><b><u>6.2.3</u></b> 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).</p> <p><b><u>6.2.4</u></b> 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.</p> <p><b><u>6.2.5</u></b> 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.</p>	
<p><b>6.3 Emergency Medical Service Operations.</b></p> <p><b><u>6.3.1</u></b> The incident safety officer shall meet the provisions of Section 6.3 during emergency medical service (EMS) operations.</p> <p><b><u>6.3.2</u></b> The incident safety officer shall ensure compliance with the department's infection control plan and NFPA 1581, <i>Standard on Fire Department Infection Control Program</i>, during emergency medical service operations.</p> <p><b><u>6.3.3</u></b> 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).</p>	
<p><b>6.4 Technical Rescue.</b></p> <p><b><u>6.4.1</u></b> The incident safety officer shall meet the provisions of Section 6.4 during technical rescue operations.</p> <p><b><u>6.4.2*</u></b> In cases where a designated incident safety officer does not meet the technician-level requirements of NFPA 1006, <i>Standard for Rescue Technician Professional Qualifications</i>, the</p>	

Risk Management Officer	Competency Met
<p>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.</p> <p><b>6.4.3</b> The incident safety officer shall attend strategic and tactical planning sessions and provide input on risk assessment and member safety.</p> <p><b>6.4.4*</b> 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.</p>	
<p><b>6.5 Hazardous Materials Operations.</b></p> <p><b>6.5.1</b> The incident safety officer shall meet the provisions of Section 6.5 during hazardous materials operations.</p> <p><b>6.5.2*</b> In cases where a designated incident safety officer does not meet the technician-level requirements of NFPA 472, <i>Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents</i>, 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.</p> <p><b>6.5.3</b> The incident safety officer shall attend strategic and tactical planning sessions and provide input on risk assessment and member safety.</p> <p><b>6.5.4*</b> 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.</p> <p><b>6.5.5</b> The incident safety officer shall ensure that control zones are clearly marked and communicated to all members.</p>	
<p><b>6.6 Accident Investigation and Review.</b></p> <p><b>6.6.1</b> 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.</p> <p><b>6.6.2</b> The incident safety officer shall initiate the accident investigation procedures as required by the fire department.</p> <p><b>6.6.3*</b> 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.</p>	
<p><b>6.7 Post-Incident Analysis.</b></p> <p><b>6.7.1*</b> 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.</p> <p><b>6.7.2*</b> The incident safety officer shall participate in the post incident analysis.</p>	
<b>EITHER</b>	Yes <input type="checkbox"/>
FCABC/LGMA: Effective Fire Service Administration	No <input type="checkbox"/>
<b>OR</b>	Yes <input type="checkbox"/>
Beyond Hoses and Helmets, or equivalent ( <i>administrative</i> )	No <input type="checkbox"/>

Company Fire Officer		Competency Met
Fire Officer 1 (NFPA 1021 in its entirety)		Yes <input type="checkbox"/> No <input type="checkbox"/>
Incident Command 200		Yes <input type="checkbox"/> No <input type="checkbox"/>
Fire Service Instructor 1 (NFPA 1041 Chapter 4)		Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.1 General.</b> <b>4.1.1</b> The Fire Service Instructor I shall meet the JPRs defined in Sections 4.2 through 4.5 of this standard.		Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.2 Program Management.</b> <b>4.2.1 Definition of Duty.</b> The management of basic resources and the records and reports essential to the instructional process.		
<b>4.2.2</b> 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. <b>(A) Requisite Knowledge.</b> Components of a lesson plan, policies and procedures for the procurement of materials and equipment, and resource availability. <b>(B) Requisite Skills.</b> None required.		Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.2.3</b> Prepare requests for resources, given training goals and current resources, so that the resources required to meet training goals are identified and documented. <b>(A) Requisite Knowledge.</b> Resource management, sources of instructional resources and equipment. <b>(B) Requisite Skills.</b> Oral and written communication, forms completion.		Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.2.4</b> 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. <b>(A) Requisite Knowledge.</b> Departmental scheduling procedures and resource management. <b>(B) Requisite Skills.</b> Training schedule completion.		Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.2.5</b> 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. <b>(A) Requisite Knowledge.</b> Types of records and reports required, and policies and procedures for processing records and reports. <b>(B) Requisite Skills.</b> Basic report writing and record completion.		Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.3 Instructional Development.</b> <b>4.3.1* Definition of Duty.</b> The review and adaptation of prepared instructional materials.		
<b>4.3.2*</b> 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. <b>(A) Requisite Knowledge.</b> Recognition of student limitations and cultural diversity, methods of instruction, types of resource materials, organization of the learning environment, and policies and procedures. <b>(B) Requisite Skills.</b> Analysis of resources, facilities, and materials.		Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.3.3*</b> 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. <b>(A)* Requisite Knowledge.</b> Elements of a lesson plan, selection of instructional aids and methods, and organization of the learning environment. <b>(B) Requisite Skills.</b> Instructor preparation and organizational skills.		Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>4.4 Instructional Delivery.</b> <b>4.4.1 Definition of Duty.</b> The delivery of instructional sessions utilizing prepared course materials.		

Company Fire Officer	Competency Met
<p><b>4.4.2</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Classroom management and safety, advantages and limitations of audiovisual equipment and teaching aids, classroom arrangement, and methods and techniques of instruction.</p> <p><b>(B) Requisite Skills.</b> Use of instructional media and teaching aids</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.4.3</b> 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.</p> <p><b>(A)* Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> Oral communication techniques, methods and techniques of instruction, and utilization of lesson plans in an instructional setting.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.4.4*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Methods of dealing with changing circumstances.</p> <p><b>(B) Requisite Skills.</b> None required.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.4.5*</b> 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.</p> <p><b>(A)* Requisite Knowledge.</b> Motivation techniques, learning styles, types of learning disabilities and methods for dealing with them, and methods of dealing with disruptive and unsafe behavior.</p> <p><b>(B) Requisite Skills.</b> Basic coaching and motivational techniques, correction of disruptive behaviors, and adaptation of lesson plans or materials to specific instructional situations.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.4.6</b> Operate audiovisual equipment and demonstration devices, given a learning environment and equipment, so that the equipment functions properly.</p> <p><b>(A) Requisite Knowledge.</b> Components of audiovisual equipment.</p> <p><b>(B) Requisite Skills.</b> Use of audiovisual equipment, cleaning, and field level maintenance.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>4.4.7</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Media types, limitations, and selection criteria.</p> <p><b>(B) Requisite Skills.</b> Transition techniques within and between media.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>4.5 Evaluation and Testing.</b>	
<p><b>4.5.1*</b> <u>Definition of Duty.</u> The administration and grading of student evaluation instruments.</p> <p><b>4.5.2</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> Use of skills checklists and oral questioning techniques.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No

Company Fire Officer	Competency Met
<p><b>4.5.3</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Grading methods, methods for eliminating bias during grading, and maintaining confidentiality of scores.</p> <p><b>(B) Requisite Skills.</b> None required.</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p><b>4.5.4</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Reporting procedures and the interpretation of test results.</p> <p><b>(B) Requisite Skills.</b> Communication skills and basic coaching.</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p><b>4.5.5*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> Reporting procedures and the interpretation of test results.</p> <p><b>(B) Requisite Skills.</b> Communication skills and basic coaching.</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Emergency Scene Management (4.6.1, 4.6.2)</b>	
<p><b>4.6.1</b> 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.</p> <p><b>(A)* Requisite Knowledge.</b> Elements of a size-up, standard operating procedures for emergency operations, and fire behavior.</p> <p><b>(B)* Requisite Skills.</b> The ability to analyze emergency scene conditions; to activate the local emergency plan, including localized evacuation procedures; to allocate resources; and to communicate orally.</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p><b>4.6.2*</b> 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.</p> <p><b>(A) Requisite Knowledge.</b> 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.</p> <p><b>(B) Requisite Skills.</b> 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.</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>