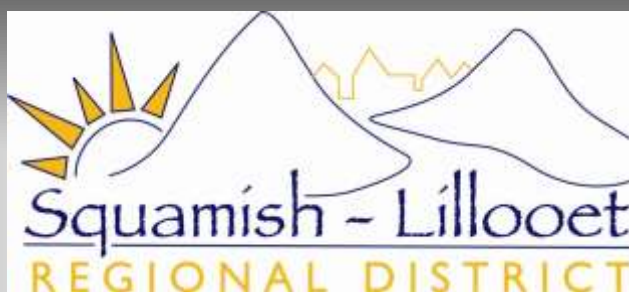




Fire Services Review



*MJ (Jack) Blair Consulting Services
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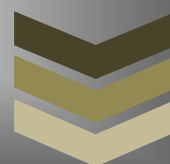


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INTRODUCTION

The Squamish-Lillooet Regional District (SLRD) has requested a Review of its fire services located at Britannia Beach, Garibaldi, Birken, Bralorne, Gun Lake and Seton Valley and also of the administrative and governance structures under which these services are provided. Bralorne and Garibaldi are the oldest fire services (1975 and 1976 respectively) with Seton-Portage following in 1992, Gun Lake in 1994, Birken in 1999 and Britannia Beach's formalization in 2006.

This Review demonstrates two very different kinds of service; formalized departments that comply with the Fire Underwriters Survey (FUS) requirements to offer their residents a recognized service and fire services that are poorly-equipped, under-funded and non-sustainable on their present course. To compound matters for the latter group, some are direct services of the regional district operated by a third party, in the form of societies, while others are an independent society function, funded by contribution from the regional district.

- The departments at Birken, Bralorne, and Seton Valley are struggling rural departments that do not comply with the insurance industry's requirements for a Protection Grade (that offer homeowners a reduced insurance cost) and would have little chance of compliance without significant apparatus upgrades and an increase in available personnel. These are not sustainable on their present courses.
- The service at Gun Lake is technically not a fire department. Its assets and response abilities are more aligned to assisting the Ministry of Forests with wildfire situations and addressing very minor suppression situations.
- The departments at Britannia Beach and Garibaldi are more consistent with rural fire departments in BC. They both carry recognition by the insurance industry and both are overcoming the challenges of delivering a service to a given standard, with limited oversight and aging equipment.

The SLRD has accepted that it has fire protection functions, but has allowed its fire services to operate during periods of changing liability environments and changing regulatory environments with very little oversight, leaving fire departments in isolation, with little understanding of what is expected from the regional district and how best to proceed. Site visits and discussions with every department's personnel exposed a common theme; lack of instruction, expectation, vision and accountability.

Several risk exposures have been identified and prioritized for the Board's consideration. The greatest focus today in the fire service (and indeed any emergency service) is the safety of the delivering personnel; the Occupational Health and Safety Act of BC and its accompanying Regulations are succinct in that regard. The SLRD has inherited further responsibility by agreeing to pay WorkSafe premiums for most society-operated services as well, effectively

making every firefighter in those services an employee of the SLRD (as defined by the OH&S Regulations).

SLRD Bylaws and Policies are weak in explanation of the types and levels of service provided. Given the varying standards of service, updating is seen as an urgent undertaking. Further, there are no Agreements in place with the societies that are expected to deliver a service on the SLRD's behalf.

The departments have not been a part of a capital asset management and replacement program and in some cases, have critically outdated apparatus, equipment and buildings. It is understood that financing can be difficult in rural areas, but by bylaw, the local government has established a service which demands currency in equipment, standards and safety.

It is clear from the review that existing staff capacity to oversee the function is inadequate and the additional services of an operational specialist are needed to complement the administrative services of the SLRD. This does not criticize existing staff in the least – it simply points to the need for more time and dedicated help for the fire service.

Some very positive attributes to the service must not be overlooked, however.

- Despite identified difficulties, members of all fire services are energetic and eager to improve themselves and their service.
- Volunteers have demonstrated their commitment and ingenuity in the delivery of the best possible service under the circumstances.
- All volunteers that participated in this Review have expressed strong interest in the sharing of resources and expertise with other departments and with the SLRD.
- All are in agreement with the establishment of common standards, common equipment types and common reporting.

This Review has been prepared on the basis of information provided by the Squamish Lillooet Regional District, observations noted and comments received from the various SLRD and society fire services.

Consultants Jack Blair and Doug Dymond are extremely grateful to the Board of Directors for its confidence in their services, to Peter DeJong for his invaluable assistance and also to SLRD Fire Chiefs and Deputies and those members of associated societies, whose enthusiasm and commitment are admirable.

STEP 1

Step 1

FIRE DEPARTMENT OPERATIONAL REVIEW

This component of the SLRD Fire Services Review examines the operational status and readiness of each service with emphasis on apparatus, firehalls, small equipment, response criteria, training, safety and service-specific regulatory compliance.

Each facility was toured during the period of August 13th to August 16th, 2013 and Consultants were accompanied by fire department and/or society personnel.

Prioritized, department-specific recommendations are included at the end of each review.

- Priority 1 requiring immediate attention
- Priority 2 requiring attention in the short-term
- Priority 3 requiring attention as funds and timing permit

Step 2 will focus on the SLRD's overall management of the function and the effectiveness of legislative and regulatory structures, both at the Regional District level and within the respective fire departments. Prioritized recommendations for action by the Squamish-Lillooet Regional District will be contained in Step 2.

Step 3 will contain recommended bylaws, policies, agreements, OH&S program, standard operating guidelines and more.

BRITANNIA BEACH VOLUNTEER FIRE DEPARTMENT

Site visit August 13th, 2013. Consultants were accompanied by Chief Steve Virgint and Deputy Chief George McLaren.

General

Britannia Beach VFD provides structural fire suppression, vehicle fire response and interface fire assistance to a service area which extends from the southern boundary of the District of Squamish southwards to the northern boundary of the Village of Lions Bay. The presence of vehicle extrication equipment suggests that some Highway Rescue service is being considered. Although Medical First Responder services are currently not provided, the department is actively investigating these. The main fire hall is located adjacent to the highway and is adjacent to the developed portion of the protection area which itself is at the northern end of the area. The department enjoys strong volunteer participation, due in part to a high standard of leadership and sound operating structure. The developed portion of the service area is quite heavily populated and Highway 99 extends through its entire length. Building and land use regulations are in place in the area.

This service is provided directly by the SLRD under the authority of SLRD Establishing Bylaw 1032-2006. The Howe Sound East Fire Protection Society plays a supportive fund-raising role but is not involved in the operations of the fire department.

Fire Hall and Property

The fire hall is a well-considered, well-maintained structure, located close to the currently developed portion of the service area. Access/egress is safe due to the clear lines of visibility and the level apron. The building site is level and the crushed rock parking areas are level and well-maintained.

The structure itself has three vehicle bays – two for its primary apparatus and one for a piece of secondary apparatus. A second piece of secondary apparatus is parked outside, adjacent to the hall. All vehicles need to back into their quarters. Truck bays are well utilized and a vehicle exhaust evacuation system is in place.



Available space in the building has been carefully considered and well-utilized with meeting area, training area, domestic areas and recreation/exercise area.

The building and property are owned by the SLRD.

Some minor items observed warrant attention:

- There are presently some small items being housed in the truck bays which are not relevant to fire suppression – a motorcycle and a small griddle stand.
- There are three vehicle hulks on the site which have been used for extrication (Jaws of Life) practices. These are somewhat unsightly and are not fenced, presenting a risk of injury to inquisitive passers-by.
- At the rear of the site, 4 aging barrels of protein-based foam are being stored in the open. This was gifted to the department some time ago and the type of foam is no longer used. The area is not secured.
- Also at the rear of the site, several propane bottles are being stored in an insecure manner.

Apparatus

Britannia Beach's fleet of primary apparatus (average age is 12.5 years) is representative of an established and growing, rural volunteer fire department with some current equipment and some in need of retirement planning. Nonetheless, the department has succeeded in developing the minimum apparatus requirements to achieve a "protected" fire insurance rating for residents and businesses within the service area.

2006 Freightliner Hub Pumper with Hale 1050 gpm pump and 750 gal reservoir.

1995 Spartan Quint with Waterous 1,500 gpm pump and 500 gal reservoir

1999 Chevrolet 3500 Van Utility Vehicle #1 (carries extrication equipment)

1999 GMC 4 x 4 Suburban Utility Vehicle #2



1995 Spartan Quint



2006 Freightliner/Hub Pumper

The Quint unit is an anomaly in terms of rural fire suppression, but the department has justified its use, notably for responses to chimney fires on some of the very tall structures on the high side of the road, in steep terrain. For FUS recognition purposes it is currently the primary apparatus, with the newer pumper being available to shuttle water in the event that the fire scene is not in a hydrant-serviced area. The Quint will lose its recognition as a primary vehicle within 5 years and replacement budgeting should be in place.

The newer pumper still carries purchase debt. All vehicles are registered to the SLRD.

Equipment and Apparatus Maintenance

Basic mechanical works, such as routine oil changes and repairs are completed by local, certified mechanic while fire pump maintenance and testing are completed by specialized firms annually and coordinated with other fire departments in the area to avoid excessive travel and response costs. Records are held at the hall.

Small engine and minor equipment maintenance is overseen by the Chief

Ladders, hoses and SCBA are maintained annually, in-house, to manufacturer's specifications.

Manpower and Training

The current roster ranges between 22 and 27 members during the year. This is a healthy number, but recruitment is on-going to ensure that there is no lapse in coverage. A worst-case (mid-week, mid-day) response would see 6 responders initially, with more following within 20 minutes. Recruitment is on-going and the Chief's primary concern is volunteer retention.

Fire Chief is a Local Assistant to the Fire Commissioner.

Personnel are clear that fire response is the principal service, as established by bylaw.



Training is carried out weekly. Most sessions are held in-area, either at the hall or at locations within the fire service area that warrant special attention. Members also attend scheduled training sessions away from the area and occasionally, in conjunction and cooperation with other departments in the area. The Chief maintains a "dry" hall.

Training is focused towards the BC Basic Firefighter Standard. The Chief

administers proficiency testing and all training, attendance and objectives are filed at the firehall. At present, some members engage in live fire training.

Chief currently receives and responds to open burning complaints in the area.

Volunteers are given a \$20 stipend for every practice attended and a flat rate of \$20 per call, regardless of duration. The Chief receives an honorarium and it is understood that he is also contracted independently to provide training to fire department personnel.

At present, volunteers are offered an “on-duty” insurance, premiums for which are contained in the annual budget. Active members themselves attend to additional premiums for “24-hour” coverage.

Water Supply

Both Britannia Beach and Furry Creek developments are serviced by SLRD-owned and operated water systems with fire hydrants. As the majority of calls originate in these areas, no water shuttling is necessary, however, the department is trained and prepared for shuttling if necessary and carries portable tanks. The department is also trained to draft from any surface water sources, including the ocean, if necessary.

Dispatch, Radios and Response

The department is well-equipped with mobile and portable radios and enjoys an excellent dispatch service provided by E-Comm of Vancouver in conjunction with the SLRD’s 911 program. Unfortunately, the dispatch service does not include a records management system. There are no “dark spots” in radio coverage and no problems with service are apparent.

The fire department and E-Comm have very poor mapping available to them, with no house numbering or street name reference.

At present, the Village of Lions Bay Fire Department responds to all calls within the Britannia Beach fire protection area as far north as Porteau Cove. It is not understood why, or under what authority – no mutual aid or joint response agreements were located.

Similarly, no mutual aid agreements were located for assistance to and from the District of Squamish.

Squamish’s and Lions Bay’s Medical First Responder and Highway Rescue services attend to calls within the Britannia Beach fire protection area.

Boundaries and Area

As discussed, the fire hall is located at the northern end of the fire protection area, closest to the most developed areas. Although there are some structures to the south, placement of the hall is justified at its present location. There have been discussions regarding development in the Porteau Cove area, but no plans have been confirmed. In the event of development at the

south end, the SLRD may wish to consider either construction of a satellite fire hall for initial response purposes, or entering into a joint-response agreement with Lions Bay.

One of the more substantial risks in this protection area during warm, dry weather is that of wildfire and interface fire. The department has already attended to some, in cooperation with the Ministry of Forests. If these occur within the protection area, it is the duty of the local government having jurisdiction to attend to suppression responsibility and costs. The Ministry will certainly assist as it can, but it is ultimately the local service area's responsibility. It was noted that there is a large tract of un-managed Crown Land within the service area, with limited or no access, in the Deeks Creek area. As well, there are several undeveloped, privately owned parcels within the protection area, one or more of which recently experienced forest fire with the department obligated to respond with the secondary assistance of the Ministry of Forests.

The Britannia Mine Heritage Site, operated by a society, contains several non-standard (and potentially dangerous) structures and also draws many hundreds of visitors each year. The Fire Chief has attempted, on several occasions, to request a tour of the facility and to solicit assistance with the development of a fire response plan – to no avail. The society pays a proportionate contribution in lieu of taxes under a 2008 agreement with the SLRD (not reviewed).

BC Parks has structures at some of its sites within the area and currently does not contribute to the fire service. The SLRD may wish to investigate a possible annual contribution from BC Parks.

Dwelling Protection Grading

The Britannia Beach and Furry Creek portions of the fire protection area currently carry a 3A, protection status, recognizing compliant apparatus and manpower as well as the presence of hydrants. The remainder of the area not benefitting from fire hydrants carries a 4, or “firehall-protected” rating, but application should be made to the FUS for a review towards a 3B rating.

Public Education

The department currently hosts an annual open-house for its residents and also encourages awareness of the service. Department personnel agree that there is a strong need for more information to reach residents and businesses of the area. Topics might include driveways, house numbering, self-help, wood-burning appliance care, etc. The SLRD also carries an excellent section within its website which is aligned to the Ministry of Forests Fire Smart program.

SLRD Support

The department is not enjoying a positive working relationship with the SLRD. From the department's perspective, there is little strategic direction, minimal understanding of the service and poor communication. The Chief and Deputy do not clearly understand their authority (or absence thereof) and strongly encourage the development of a coordinator position within the SLRD to act as liaison and support.

The Electoral Area D Director has been keen and supportive of the service and has assisted where possible with Community Works Fund contributions.

Consultant observations would suggest that the principal areas of concern are the lack of administrative support (in terms of strategic budgeting, guidance, mapping, clear definition of service levels and response agreements with municipalities and specialized services within the service area) and the lack of a formal Occupational Health and Safety Program. Both place the SLRD at significant risk. The Chief has also been concerned about recruitment and retention of volunteers and has focused efforts on these issues.

Local government support for its volunteer services of this nature is critically important to ensure smooth and safe operations. Areas that are evidenced by the current lack of support include:

- Establishment Bylaw and Policies – while Bylaw 1032-2006 is clear and simple, it does not establish levels (or limits) of service (structural fire suppression, vehicle fire suppression and assistance with vegetation fire suppression). Policies are also absent. This fire department appears to be considering Highway Rescue and Medical First Responder services without SLRD knowledge or requisite authority.
- Reciprocal and Service Agreements – As noted, there are no known mutual-aid or joint-response agreements in place, yet the Lions Bay FD is known to enter this protection area regularly. Further, with Squamish close to the northern boundary, there is an opportunity for a very beneficial mutual aid agreement. Internally, there is a need for response agreements at the mine heritage site and possibly with BC Parks.
- Mapping – the only maps available to the department at present are a single SLRD-generated plot of the entire service area (without house numbers and road names) and fire department hand-drawn maps of hydrant locations. Clear and current maps should be in the possession of the department and E-Comm at all times for accurate dispatching and response.
- Budgeting – there does not appear to be a strategic budgeting process in place which would see a calculated amount accruing towards known capital replacement items (such as a replacement truck in 5 years or so). The current residential tax rate of \$0.51 is

extremely reasonable for this level of service. The current annual operating amount of \$127,000 is reasonable and consistent with similar departments of this size.

- Pricing and purchasing are completed by the fire chief, but there does not appear to be a purchasing guideline or a purchase order system in place to protect the fire department, the vendor, or the SLRD.

The absence of a formal Occupational Health and Safety Program, especially for a department of this size, places the SLRD in contravention of the OH&S Regulation. Because this is a direct service of the SLRD, with WorkSafe premiums paid through the SLRD budget, all rostered volunteers are, by Regulation definition, employees of the SLRD and must be afforded the same level of safety protection as internal employees. Records of all meetings, issues and resolutions must be filed with the employer.

Fire Department Audit

The department scored fairly well against the BC Fire Commissioner's Inspection and Audit Checklist. Some areas warrant attention:

- Some Standard Operating Guidelines (SOGs) are in place, but the development of more is required. A common, master set of SOGs should be developed as a SLRD-wide resource for all departments.
- While the department has a small safety group, record management could be improved and there is a need for a formal OH&S program overseen by the SLRD. As discussed, this is a regulatory requirement which considers the size of the department. Currently, the chief fills out a WorkSafe Form 7 to report any fire department related injuries.
- There is no Workplace Hazardous Materials Information System (WHMIS) certification in place. Although limited, there is firefighter exposure to automotive fuels, foams and retardants and other specialized compounds. Certification is simple and benefits all members in all walks of life.
- The department does not have a formal Records Management System. The SLRD, on behalf of its departments, should investigate a program which is interactive with the dispatch service.

RECOMMENDATIONS, BRITANNIA BEACH VOLUNTEER FIRE DEPARTMENT

Priority	Comment
1	Establish a Safety Committee which meets regularly to identify and address safety concerns and follow up on identified issues. Dates, attendees and topics must be recorded and filed. Committee should be structured to become part of an SLRD Joint Occupational Health and Safety Committee in the future.
1	Decline to respond to open burning complaints and refer callers to SLRD enforcement personnel, the RCMP, or 911.
1	In conjunction with the SLRD, meet with Lions Bay Fire Chief to determine rationale and guidelines for fire response in Britannia Beach – not to dissuade the service but to understand when and why it responds. Objective is to avoid confusion and/or coverage voids and to develop response agreements.
1	Decline to pursue Highway Rescue and/or Medical First Responder services until a) the Fire Services Review is complete and b) the SLRD has granted requisite authority by bylaw and/or policy.
1	Work closely with the SLRD to budget for a debt-free (if possible) purchase of replacement, primary apparatus in 2017/2018.
1	Initiate/maintain Live Fire Level 1 training for active members and Level 2 in the longer term.
1	Request FUS review of non-hydranted area towards 3B rating
2	In conjunction with Garibaldi VFD (and possibly Squamish & Lions Bay FDs), locate and utilize a formal Records Management System.
2	Enroll all active members in WHMIS training.
2	Arrange to remove barrels of protein-based foam from firehall property, or alternatively, erect secure fencing around barrels.
2	Place propane bottles at rear of building in a secure location.
2	In conjunction with the SLRD, continue to work with the Britannia Mine Heritage Society to develop a response plan and develop specific SOGs.
3	Consider temporary shelter for Utility Truck #2 until permanent quarters are available.
3	Consider buffering, or fencing off the area utilized for vehicle extrication practice.
3	Focus society efforts to non-essential, but appreciated items (eg. Barbeques, firefighter & family events, additional insurances for firefighters & families, recruiting drives, attendance at courses and seminars that are not specific to firefighting, but are useful – such as driving/air brake certification, etc. (Basic firefighting requirements should be contained in the SLRD budget and are the responsibility of residents enjoying the service and its benefits)
3	Consider use of Smart Phones for operational use.

GARIBALDI VOLUNTEER FIRE DEPARTMENT

Site visit August 14th, 2013. Consultants were accompanied by Chief Ed Jones

General

Much like the Britannia Beach VFD, the Garibaldi VFD provides structural fire suppression, vehicle fire response and interface fire assistance to a service area which extends from the southern boundary of the Municipality of Whistler southwards along Highway 99 to the Ministry of Transportation salt sheds. The centrally-located fire hall is located close to the highway and is adjacent to the most developed portion of the protection area, comprised of the Black Tusk and Pine Crest strata developments. The fire hall is undergoing complete reconstruction and promises to be an exceptional facility on completion. The department enjoys strong volunteer participation, due in part to proximity of the firehall to most homes and to strong leadership and vision. Building and land use regulations are in place in the area.

This service is provided directly by the SLRD under the authority of SLRD Specified Area Establishment Bylaw 97, 1976.

The Garibaldi Fire Protection Society is an active fund-raiser for equipment and apparatus purchases and has no operational role.

Call volume is very low with an average of 1 call per 24 months.

Fire Hall and Property

The new building will have three apparatus bays, training and recreation area and a mezzanine residential suite intended for occupancy by a trainer/firefighter. Bays open to a level apron area with ample area for vehicle manoeuvring. Vehicles must back into quarters. The building site is level with good access/egress characteristics.

During construction, equipment is being stored in an adjacent, secure shipping container while apparatus is being stored in the open, under tarps.



No provision has been made for a built-in vehicle exhaust ventilation system

The building and property are owned by the SLRD. Building costs of approximately \$700,000 have been committed to date.

Apparatus

Garibaldi's fleet is fairly limited and aging.

1994 Ford F700 Superior Pumper with 625 gpm Hale pump and 1,000 gal reservoir (owned by SLRD)

1996 Ford F250 Mini-pumper with built-in Compressed Air Foam system (owned by Society)

2005 Ford F350 Pickup with Canopy – Utility Vehicle (owned by Society)



1994 Superior Pumper



1996 Ford Mini-Pumper with CAF system



2005 Ford Utility Vehicle

The department has relied on the single pumper, in combination with the available hydrants to achieve a Dwelling Protection Grade 3A rating for the Black Tusk and Pine Crest developments. The pumper has now reached an age of 20 years and while it is still well-maintained and operated, its replacement with a compliant, modern pumper should be considered within 5 years to maintain the insurance industry's recognition.

There is no supporting tanker for structural fires outside of the hydrant-serviced area. Should other areas be considered for inclusion into the protection area, a tanker, capable of safely carrying 1,000 gallons of water, should be considered to maintain a Dwelling Protection Grade 4 or 3B rating.

Unfortunately, the Compressed Air Foam system on the mini-pumper does not receive any recognition from the insurance industry.

The society also owns a small towable trailer with water tank and portable pump for assistance with minor brush fires.

For convenience and to access improved insurance rates, consideration should be given to transferring these assets to the SLRD.

Equipment and Apparatus Maintenance

Mechanical works, such as annual inspections, routine oil changes and repairs are completed by certified mechanical firms in either Whistler or Squamish while fire pump maintenance and testing are completed by specialized firms annually and coordinated with other fire departments in the area to avoid excessive travel and response costs. Records are held at the hall.

Small engine and minor equipment maintenance is overseen by the Chief.

Ladders, hoses and SCBA are maintained periodically, in-house, to manufacturer's specifications.

Vehicle fuelling is accomplished via jerry cans, with volunteers filling same when travelling to Whistler or Squamish and as required. While simple and convenient, the practice is dangerous and exposes volunteers, the fire department and the SLRD to risks of spill, fire, explosion or contamination.

Manpower and Training

As of this review, the roster stands at 21 members. Given the size of the department and the infrequency of calls, this is a healthy number. A worst-case (mid-week, mid-day) response would see 4 responders initially, with up to 15 following within 30 minutes. Recruitment is on-going and the Chief's primary concern is volunteer retention.

There is no Local Assistant to the Fire Commissioner for this department.

Personnel are clear that fire response is the principal service, as established by bylaw.

Training is carried out weekly with many sessions held jointly with the Whistler fire department (with which the Garibaldi VFD has an excellent working relationship). Live fire training has been accomplished by most members and officer training is being contemplated.

Volunteers are given a \$20 stipend for every practice attended and no payment for calls. The chief is satisfied that this is working well at present. The chief is given an annual stipend of \$5,000.

Water Supply

Both Black Tusk and Pine Crest developments are serviced by water systems owned, operated and maintained by the respective strata corporations. Systems are equipped with hydrants and appear to be well-maintained. As the majority of calls originate in these areas, no water shuttling is necessary, however, the department is trained and prepared for shuttling its pumper and portable tanks if necessary. The department is also trained to draft from any surface water sources if necessary.

Subsequent to the site visit, it was discovered that there is a domestic water system at Brew Creek, with hydrants. This should be explored with FUS to determine a possible DPG change.

Dispatch, Radios and Response

The department is equipped with mobile and portable radios and enjoys an excellent dispatch service provided by E-Comm of Vancouver via the Whistler Fire Rescue base station radio, in conjunction with the local 911 program. The SLRD is exploring a satellite back-up system in the new hall and this could also benefit Whistler. Once a call is received by the department, a siren is sounded to muster volunteers. Unfortunately, the dispatch service does not include a records management system. There are no “dark spots” in radio coverage and no problems with service are apparent. The department enjoys common radio frequencies with the Municipality of Whistler, with which it is a mutual aid participant. Whistler automatically responds to structure fires in the Garibaldi protection area.

The fire department and E-Comm have very poor formal mapping available to it, with no house numbering reference. This is a contentious issue with the chief. The department carries its own address mapping in the apparatus.

The Garibaldi VFD only responds to structural, vehicle and vegetation fire calls. There is presently no interest in pursuing Highway Rescue or Medical First Responder services.

An on-scene accountability program is in place.

Boundaries and Area

The fire hall is appropriately located close to the centre of the service area and adjacent to the most developed portion of the area. There are a few remote structures, notably on Daisy Lake but the department is adequately equipped to manage these.

There is currently a large tract of land to the north of the protection area, with some structures, that is not fire protected. It is believed that the site is owned by the Whistler Olympic Legacy Society.

Because of topographical constraints, there is little chance of significant development within the fire protection area.

Dwelling Protection Grading

The Black Tusk and Pine Crest developments within the fire protection area currently carry a 3A, dwelling protection status, recognizing compliant apparatus and manpower as well as the presence of hydrants. The remainder of the area not benefitting from fire hydrants carries a 4, or “firehall protected” rating, however, the documented water system at Brew Creek should be investigated with FUS for possible DPG upgrading to 3B for the area.

Public Education

The department is an integral part of the Black Tusk and Pine Crest strata developments. The strata corporations carry rigid regulations regarding open burning and unsightliness which complements the fire service. Open houses at the fire hall are frequent, as are fund-raising events for the Fire Protection Society. Residents are very well informed about their fire department and to a great extent, participatory.

SLRD Support

The department enjoys a positive working relationship with the SLRD, both at the staff level and with the Electoral Area D Director. However, similar to Britannia Beach VFD comments, there appears to be little strategic direction, no financial accountability and inadequate routine support. Available mapping is very poor and absence of house numbers and road names makes dispatch and response challenging. According to the Chief, this is a long-standing issue.

The Electoral Area D Director has been keen and supportive of the service and has assisted where possible with Community Works Fund contributions.

Very much like the Britannia Beach fire service, there is an overall lack of administrative support at Garibaldi as well as an absence of an Occupational Health and Safety Program for a significant regional district function.

Some areas warranting attention would include:

- Establishment Bylaw and Policies – Bylaw 97, the establishing bylaw, is very dated and in need of conversion, or amendment. Levels of service are not identified in the bylaw, or

in any policies. Service area boundaries are described in metes and bounds instead of reference to a detailed map.

- Mapping – the only maps available to the department at present are a single SLRD-generated plot of the entire service area (without house numbers and road names) and fire department hand-drawn maps of hydrant locations. Clear and current maps should be in the possession of the department and E-Comm at all times for accurate dispatching and response.
- Budgeting – It is assumed that a borrowing bylaw was initiated for the purposes of building, but there does not appear to be a strategic budgeting process in place which would see a calculated amount accruing towards known capital replacement items (such as a replacement truck in 5 years or so). The current residential tax rate of \$0.80 is reasonable for this level of service. The current annual operating amount of \$112,000 is slightly lower in comparison to operating budgets of similarly-sized rural fire departments.

In conversation with the Chief, funds generated by the society are used to purchase routine fire-fighting items, even vehicles. Technically, all costs associated with fire suppression requirements should be contained in the annual budget, with the society contributing to ancillary items in support of firefighters.

Although not confirmed, it is believed that the society carries funds in its reserves for equipment acquisition. Consideration should be given to transferring these funds into the SLRD's reserve dedicated to the Garibaldi VFD for consolidation purposes and to access better rates of interest.

- Pricing and purchasing are completed by the fire chief, but there does not appear to be a purchasing guideline or a purchase order system in place to protect the fire department, the vendor, or the SLRD.

Again, the absence of a formal Occupational Health and Safety Program, especially for a department of this size, places the SLRD in contravention of the OH&S Regulation. Because this is a direct service of the SLRD, with WorkSafe premiums paid through the SLRD budget, all rostered volunteers are, by Regulation definition, employees of the SLRD and must be afforded the same level of safety protection as internal employees. Records of all meetings, issues and resolutions must be filed with the employer.

Fire Department Audit

This department scored similarly to Britannia Beach VFD against the BC Fire Commissioner's Inspection and Audit Checklist. Some areas warrant attention:

- Some Standard Operating Guidelines (SOGs) are in place, but the development of more is required. A common, master set of SOGs should be developed as a SLRD-wide resource for all departments. Compatibility with Whistler SOGs should be considered.
- There is no OH&S program in place. Firefighters are frequently reminded to bring up safety concerns. No safety or incident records are maintained. As discussed, this is a regulatory requirement which considers the size of the department. Currently, the chief fills out a WorkSafe Form 7 to report any fire department related injuries.
- There is no Workplace Hazardous Materials Information System (WHMIS) certification in place. Although limited, there is firefighter exposure to automotive fuels, foams and retardants and other specialized compounds. Certification is simple and benefits all members in all walks of life.
- SCBA, ladders and compressors are tested annually, while hoses are tested every few years.
- The department does not have a formal Records Management System. The SLRD, on behalf of its departments, should investigate a program which is interactive with the dispatch service.

RECOMMENDATIONS, GARIBALDI VOLUNTEER FIRE DEPARTMENT

Priority	Comment
1	Establish a Safety Committee which meets regularly to identify and address safety concerns and follow up on identified issues. Dates, attendees and topics must be recorded and filed. Committee should be structured to become part of an SLRD Joint Occupational Health and Safety Committee in the future.
1	Refrain from use of jerry cans for apparatus fuel transport and transfer. Utilize certified truck-bed tank (eg. Tidy Tank) with pump.
1	Work closely with the SLRD to budget for a debt-free (if possible) purchase of replacement, primary apparatus in 2017/2018. Consider a pumper/tanker with at least 1,000 gal capacity.
1	In conjunction with SLRD, develop specific policy regarding use and tenancy of mezzanine suite.
1	Continue Live Fire Level 1 training for active members and initiate Level 2 in the longer term.
1	Request FUS review of Brew Creek water system for possible DPG amendment to 3B
2	Initiate regular hose, ladder and SCBA testing.
2	In conjunction with Britannia Beach VFD (and possibly Whistler FD), locate and utilize a formal Records Management System.
2	Enroll active members in WHMIS training.
2	Transfer ownership and responsibility of society-owned vehicles to SLRD and consider transferring any reserve funds held by the society to the SLRD's Garibaldi VFD capital reserve.
2	Investigate contracted mechanical services that will travel to Garibaldi fire hall to complete routine mechanical maintenance and annual Commercial Vehicle Inspections, instead of apparatus and equipment leaving the protection area.
3	Focus Society efforts to non-essential, but appreciated items (eg. Barbeques, firefighter & family events, additional insurances for firefighters & families, recruiting drives, attendance at courses and seminars that are not specific to firefighting, but are useful – such as driving/air brake certification, etc. (Basic firefighting requirements should be contained in the SLRD budget and are the responsibility of residents enjoying the service and its benefits)
3	Consider installation of a vehicle exhaust ventilation system in truck bay.
3	Consider use of Smart Phones for operational purposes.
3	Consider distancing Fire Chief/ Society Chair relationship.

BIRKEN VOLUNTEER FIRE DEPARTMENT

Site visit August 15th, 2013. Consultants were accompanied by Chief Dave Moldofsky

General

The Birken Volunteer Fire Department protects an isolated community of approximately 250 residents and is operated by the Birken Fire Protection Society with financial contribution (under Bylaw 684) from the SLRD. All equipment and apparatus is owned by the society and the fire hall is believed to be owned by the SLRD. Tenure of the firehall property, a Crown lease arrangement, is registered to the SLRD and the site is informally (no known agreement) sub-leased to the society.

The fire hall is centrally-located within the protection area which covers approximately 35 sq. kilometers. The area is comprised of residential and agricultural structures.

The department offers exterior attack only to structure fires and call volume is low. The Chief is enthusiastic and energetic but is facing declining interest in the service, obsolete equipment, little or no guidance or support and insufficient time to attend to the daily requirements of an operating fire department. The results are clearly evident and the society, community and SLRD must consider the future of the service carefully. On its present course, the department is not sustainable and poses significant risks to all participants.

Fire Hall and Property

Birken's fire hall is a 40' by 60' (12 m by 18 m) corrugated metal arch structure which has been modified to suit the service. Insulation has been applied to the interior and crude modifications have been made to the bay doors. All apparatus must access and egress the hall via the main central door. The truck bays are cramped while containing three pieces of apparatus. There is no vehicle exhaust ventilation system. There is a meeting/training area, a washroom, an office and a storage area at the rear of the building.



The property is understood to be owned by the Crown, leased by the SLRD and sub-leased to the Birken Fire Protection Society. The site is level, unsurfaced and in need of vegetation control. Access to Portage Road is via an unsurfaced, sloped driveway with an angular intersection at the main road.

There are presently two out-of-service apparatus hulks languishing on the property.

Apparatus

The department carries two pieces of primary apparatus (both of which are obsolete and one of which, the tanker, is not insured) and a single piece of secondary apparatus. Primary apparatus fleet age average is 35 years.

1981 IHC Anderson Pumper with 840 gpm Hale pump and 850 gal reservoir (owned by society)

1975 Ford 750 Tanker with 1,800 gal tank (not insured, owned by society)

1991 Ford F250 4x4 Pickup – Utility Vehicle (owned by society, donated by BC Hydro)



1981 IHC Pumper



1975 Ford Tanker



1991 Ford Utility Vehicle

Neither of the primary vehicles meets the requirements of the insurance industry for a Dwelling Protection Grade better than 5 – in effect, the community is considered “unprotected”.

Following a dispatch, the utility vehicle is first to respond, followed by the pumper. The tanker, which is operational, could respond also, but only pending a Commercial Vehicle Inspection and valid insurance.

Apparatus and Equipment Maintenance

There is currently no scheduled pump maintenance on primary apparatus and the date of the last servicing is not known. Although not confirmed, it is unlikely that the tanker would presently pass an annual Commercial Vehicle Inspection.

Mechanical maintenance is performed on an as-required basis by one of the firefighters, a certified mechanic.

Manpower and Training

As of this review, the roster stands at 14 members with an assured attendance by 7 at any time of day. The core group is strong and recruitment is on-going. The Chief's primary concern is volunteer recruitment in a small community with little growth.

There is no Local Assistant to the Fire Commissioner for this department.

Training is carried out weekly with emphasis on primary apparatus pump operation and wildfire suppression. Most members carry S-100 certification for wildfire management.

Volunteers are given a \$50 stipend for every call attended and no payment for practices. The chief is satisfied that this is working well at present.

To the Chief's knowledge, the society does not carry liability, or any other insurance behalf of its members.

Attempts have been made in the past to share resources and cooperatively train with members of the nearby D'Arcy First Nations settlement, but to no lasting effect. There is a water system with hydrants and standpipes in D'Arcy and the Birken VFD will refill from these, if necessary. Birken VFD will respond to structure fires in D'Arcy if requested.

Water Supply

The department has established and mapped several water sources in the area including surface water at Poole Creek and Gates Creek, but will refill from hydrants or standpipes located at D'Arcy or Devine if necessary. The department utilizes a portable 1,000 gal tank when justified.

Dispatch, Radios and Response

The department is equipped with mobile and portable radios and enjoys an excellent dispatch service provided by E-Comm of Vancouver in conjunction with the SLRD's 911 program. A satellite back-up system is being researched by a local radio technician/consultant. Unfortunately, radio transmission quality, both ways, is sporadic and attempts are under way to improve the situation.

All members carry portable radios and are dispatched accordingly.

The Village of Pemberton is notified of Birken's calls and often responds – it is not known why or if any response agreements are in place. Subsequent to the site visit, it was noted that, under the authority of an SLRD bylaw, the Village of Pemberton operates a road rescue service throughout the Village of Pemberton/Area C region, including Birken, and sometimes calls ahead requesting Birken VFD response. Parameters of response should be clarified by way of agreement.

Birken VFD will respond to fires in D'arcy and Devine, if requested. No agreements are known to exist.

The Birken VFD radios and network is not licensed.

The department enjoys a very positive relationship with the BC Forest Service with sharing of resources, as appropriate.

There is no on-scene accountability program in place.

The department has discussed offering a possible Medical First Responder (MFR) program because of the very long wait time (in excess of 40 minutes) for BC Ambulance service. While MFR programs can be rewarding and of benefit to the community, they can also be onerous where there is a lack of abundant personnel, therefore requiring careful consideration of all potential issues.

Boundaries and Area

The fire hall is appropriately located close to the centre of the service area and has immediate access to Portage Road, the main thoroughfare.

There is a potential opportunity to expand the service area to the east to include presently unprotected parcels towards D'Arcy and according to the Chief, there may be interest in inclusion by parcels in the Devine area. Both areas are in excess of 8 km from the fire hall, but may be within the 13 km limit acceptable to some insurance underwriters.

There is little chance of significant development within the existing fire protection area.

Existing mapping is poor and inadequate for fire services.

Dwelling Protection Grading

Present Dwelling Protection Grade is 5, or “unprotected”. In order to attain a “firehall-protected” status, or DPG 4 (and preferably a DPG 3B), apparatus would need to be modernized and recruitment stepped up to achieve a 15-person roster, plus a Chief.

At a minimum, apparatus would need to include:

- a currently-certified pumper (less than 25 years old) with a pump capacity of 840 gpm and reservoir of at least 500 gallons **and**
- An accompanying tanker (less than 25 years old) capable of carrying at least 1,000 gallons and equipped with pumps for drafting and discharge.

Thorough research and discussion is recommended to determine ideal specifications, but given the apparatus costs and current funding levels, this seems unlikely to occur soon, if at all.

Public Education

Given time and cost limitations, very little is offered in the way of public education.

Development of an SLRD-wide public information package may be more helpful to instruct residents about fire protection measures and fire scene safety.

SLRD Support

While the department enjoys a positive working relationship with SLRD staff, there is no formal agreement between the SLRD and the society, so objectives and purpose are vague and much of the workload falls to the Chief, who has little time to offer.

Available mapping is very poor and absence of house numbers and road names makes dispatch and response challenging.

Some areas warranting attention would include:

- Establishment Bylaw – SLRD Bylaw 684 establishes the service area for the purposes of financial contribution. There is no fire protection service established by bylaw and society members lack any formal authority to enter on to property, other than as good

Samaritans. There is no associated agreement with the service provider and levels of service are not identified.

- Mapping – the only mapping available to the department at present is a single SLRD-generated plot of the entire service area (without house numbers and road names). Clear and current maps should be in the possession of the department and E-Comm at all times for accurate dispatching and response.
- Budgeting – The current annual amount transferred to the society is \$30,000 – no fiscal accountability is required by the SLRD. The status of reserves is not known, nor is the acquisition planning process. The society is not clear on priorities, or compliance with insurance industry standards. The annual amount falls far short of the annual operating requirements for a similarly-sized, rural fire department in BC that is endeavoring to comply with FUS rating requirements.
- Based on information provided, Insurances are non-existent. In the absence of liability insurance at the society level, liability will quickly be shared with the SLRD and members of the department and society, personally. Firefighters have no known coverage for on-duty injury insurance and many are self-employed. It is not known if the society carries property and asset insurances against loss, damage or theft but there was some indication that there may be some disability insurance. Clarification is warranted.

Fire Department Audit

Predictably, this department scored poorly against the BC Fire Commissioner's Inspection and Audit Checklist. In particular:

- Minimal Standard Operating Guidelines (SOGs) are in place, but there is not enough time or desire to produce more or refine existing ones.
- There is no OH&S program in place. There are no safety meetings and minimal record-keeping. No safety or incident records are maintained. As discussed, this is a regulatory requirement for any employer. Injuries are not reported (it is hoped and assumed that none have occurred)
- There is no Workplace Hazardous Materials Information System (WHMIS) certification in place. Although limited, there is firefighter exposure to automotive fuels, foams and retardants and other specialized compounds. Certification is simple and benefits all members in all walks of life.
- SCBA, ladders and hoses are tested but not sufficiently to meet accepted standards.
- Although there is minimal scene-management training and a basic understanding of Incident Command, there is no accountability program in place.
- There is no Loss Reporting to the Office of the Fire Commissioner.

RECOMMENDATIONS, BIRKEN VOLUNTEER FIRE DEPARTMENT AND FIRE PROTECTION SOCIETY

Priority	Comment
1	Insure tanker, or dispose of it if not insurable. Do not operate if uninsured.
1	Acquire Liability Insurance covering all firefighters as soon as possible , if not currently in place. Provide SLRD with copy.
1	Establish a Safety Committee which meets regularly to identify and address safety concerns and follow up on identified issues. Dates, attendees and topics must be recorded and filed.
1	Decline to respond outside of protection area without specific agreements
1	In conjunction with SLRD, examine possible expansion of fire protection area, if interest is present and consider increasing existing tax rate to facilitate apparatus acquisition. Current funding is inadequate.
1	In conjunction with SLRD, develop a constitution, or at least a documented course of action with objectives to assist fire department growth and direction. Determine whether BVFD wishes to become FUS-compliant, or remain as a fire brigade. If FUS compliance becomes a realistic objective, move towards an SLRD-operated service
1	In conjunction with SLRD, explore a formal response agreement with Pemberton FD.
1	Continue training of all firefighters in BC Firefighter Certification program.
2	In conjunction with SLRD provide more public education regarding fire prevention and fire scene safety.
2	Remove the 2 vehicle hulks on the property – they have no value but still pose risk.
2	Initiate regular hose, ladder and SCBA testing.
3	Consider installation of a vehicle exhaust ventilation system in truck bay.
3	Enroll active members in WHMIS training.

BRALORNE VOLUNTEER FIRE DEPARTMENT

Site visit August 15th, 2013. Consultants were accompanied by Chief Nigel Hopp

General

The SLRD's Bylaw 69 (1975) establishes a fire protection area for this community of less than 100 residents and the fire service is operated by the Bralorne Fire Protection Society. All equipment, apparatus and the fire hall are owned by the Society. The community is supportive of the fire department.

Road grades are fairly steep and buildings are aging wooden structures, many dating to the early 1900s. Several areas within the protection area are not accessible by the department's apparatus. The community is served by an SLRD-owned and operated water system with hydrants however, parts of the system are quite old and not all hydrants are in good working condition. The water system is not FUS-compliant.

An operating gold mine in the community is currently posing some response concerns.

The department offers exterior attack only to structure fires and call volume is low. The Chief is enthusiastic and energetic but, very much like Birken's Chief, is facing declining interest in the service, obsolete equipment, little or no guidance or support and insufficient time to attend to the daily requirements of an operating fire department. Primary apparatus is obsolete. The department is not sustainable on its present course.

Fire Hall and Property

The building appears to be a purpose-built structure with 2 bays and large meeting/training area. There is no vehicle exhaust ventilation system in the truck bay area. Both the truck bay area and the meeting room area are in need of maintenance and care. The meeting area is cluttered and doubles as a changing room for residents using the adjacent ice rink in the winter. There appears to be no security provision in place for access to the truck bays.



According to the Chief, the sewer system has been problematic recently.

The property is understood to be owned by the society. The site is level, unsurfaced and in need of vegetation control.

Apparatus

The department carries only one piece of primary apparatus, a pumper which is now obsolete. There is no tanker or supporting primary vehicle. The department also has a single piece of secondary apparatus.

1987 Mack Anderson diesel Pumper with 1050 gpm Hale pump and 500 gal reservoir (owned by society)

1996 Ford F350 4x4 Pickup – Utility Vehicle (owned by society, donated by BC Hydro)



1987 Mack Pumper

The pumper is air-brake equipped, requiring endorsement of its operators.



1996 Ford Utility Vehicle

Because of its age and lack of re-certification, the primary vehicle will no longer meet the requirements of the insurance industry for a Dwelling Protection Grade 4, which the community currently enjoys.

Following a dispatch, the utility vehicle is first to respond, followed by the pumper, if necessary.

Apparatus and Equipment Maintenance

There is currently no scheduled pump maintenance on the primary apparatus and the date of the last servicing is not known.

Mechanical maintenance is performed annually by certified mechanic in Lillooet

The Chief and firefighters maintain small equipment.

Manpower and Training

According to Chief Hopp, there are some 28 members on the overall accountability board. This number fluctuates in response to activity at the local mine and during the site inspection, when the mine was shut down, that number dropped to 20. Response by 5 members is assured at any time of day or night. The core group is strong and recruitment is on-going. The Chief's primary concern is volunteer motivation. 2 members, including the Chief, have completed Basic Firefighter training and the "train the trainer" program and there are 2 or 3 more members to follow.

There is no Local Assistant to the Fire Commissioner for this department.

Training is carried out weekly with emphasis on primary apparatus pump operation and hydrant operation. Most members carry S-100 certification for wildfire management.

Only 4 members carry an air-brake endorsement for pumper operation.

Volunteers are given no stipend for training or response.

Subsequent to the site visit, the society has advised that it carries liability insurance. Copies of this policy should be forwarded to the SLRD for verification that coverages, limits and co-insured parties are consistent with SLRD requirements.



Negotiations have been attempted to cooperatively train with members of the nearby Bralorne Gold Mine, but there is currently an impasse. At least 12 mine employees are trained as firefighters, but there is a reluctance to assist a volunteer fire department.

There are surface water sources and the department is trained to draft from these using portable pumps.

The department is presently training to introduce a Medical First Responder program. **This should not be pursued** until the Review is complete and the SLRD has issued formal authority. Services of this nature require very specific contractual arrangements with the BC Ambulance Service and are normally offered as an adjunct to the fire suppression service – as the fire service is an SLRD responsibility, by bylaw, formal SLRD authorization is required and should be supported by policy. While MFR programs can be rewarding and of benefit to the community, they can also be onerous where there is a lack of abundant personnel, therefore requiring careful consideration of all potential issues.

Water Supply

Bralorne is serviced by an SLRD-owned and operated water system, with hydrants. Hydrants are old and difficult to operate. The current FUS Dwelling Protection Grade of 4 does not recognize the hydrants.

The fire department locates a majority of its hoses at each hydrant for rapid use by the department, but some hoses are being abused by residents for non-emergency purposes and are not being returned and stored correctly. As such, the Chief is considering storage of all hose at the fire hall which will carry the added benefit of firefighter accountability following a dispatch as well as confirmation that all personal protective gear is donned prior to response. Development of a SLRD-wide public information package may also be helpful to explain the recommended changes regarding hose and hydrant wrench storage changes.

As discussed earlier, the department is prepared and equipped to draft from surface water sources, if necessary and trains on portable pump operation for this purpose.

Dispatch, Radios and Response

The department is equipped with a limited number of portable radios and enjoys an excellent dispatch service provided by Surrey Fire Dispatch in conjunction with the SLRD's 911 program. A satellite back-up system is also in place. Once a call is received by a holder of a portable radio, that individual proceeds to the hall and activates the siren and a telephone fan-out to muster volunteers.

Radios are licensed by the Society.

The Chief advised that he is contemplating response to areas outside the protection boundary as a potential revenue stream. **This should not be pursued** in the absence of clear authority from the SLRD and with supporting SLRD Policy.

The department enjoys a very positive relationship with the BC Forest Service with sharing of resources, as appropriate.

There is an on-scene accountability program in place.

Boundaries and Area

The fire hall is appropriately located within the service area and has immediate access to the main thoroughfare.

A map generated by the SLRD currently displays areas that "may be removed" from the service area. This is strongly supported by the Chief because the bridge to that area is out – the area is not accessible.

Additionally, there are some properties within the active service area (in the Eagleridge Road area) that could not be reached by primary apparatus because of road grades and surfaces.

There is little chance of significant development within the existing fire protection area.

Existing mapping is poor and inadequate for fire services.

Under a separate section of this Review, the possibility of an expanded and amalgamated service area is discussed.

➤ **Bralorne Gold Mines** is an active operation within the community and is located within the fire protection boundary. At the time of inspection, the mine was shut down under Order of the Inspector of Mines, pending a resolution to the mine's firefighting capabilities. Attempts had been made to establish a satisfactory Memorandum of Understanding between the mine and the fire department, but to no avail. According to Chief Hopp:

- The Inspector of Mines has suggested that there is no obligation for the fire department to attend a call on the mine site.
- The Bralorne VFD is willing to attend if the mine is prepared to identify site hazards and train its members accordingly.
- A reciprocal agreement appears to be difficult to attain because members of the fire department are not paid, while mine employees are.

As the Mine property falls within the fire protection area the Consultants have recommended a response to any call at the mine site, provided that firefighters are kept safe. There is no expectation of structure entry or mine rescue.

Subsequent to the site visit, Chief Hopp has advised is that there has been a resumption of discussions about joint practices with mine personnel.

Dwelling Protection Grading

Present Dwelling Protection Grade is 4, or "firehall protected". This status is at risk of loss unless the department upgrades its primary apparatus, confirms a permanent roster of 15 members, plus a Chief and improves its current mustering method to all-radio. Sirens and telephone fan-outs are no longer acceptable.

The SLRD could further improve the grading by certifying its water system to a recognized status.

Given the apparatus costs and current funding levels, this is unlikely to occur soon, if at all. The society carries approximately \$30,000 in reserves.

Public Education

Given time and cost limitations, very little is offered in the way of public education. However, Chief Hopp has developed a local information pamphlet that will be distributed shortly.

SLRD Support

The department enjoys a positive working relationship with SLRD staff. There is no formal agreement between the SLRD and the society, so objectives, purpose and understanding of governance and liabilities are vague and much of the workload falls to the Chief, who has little time to offer. The Chief is also the Society Chair, which should be reviewed, because the negative perceptions of financial management, especially with no accounting requirement by the SLRD, may be damaging. The society meets infrequently.

Available mapping is very poor and absence of house numbers and road names makes dispatch and response challenging. The service area contains portions which are inaccessible by the fire department.

Some areas warranting attention would include:

- Establishment Bylaw – the aging SLRD Bylaw 69 carries no maximum tax rate and the current residential tax rate of \$1.57 generates approximately \$28,000. The service area is described in metes and bounds. There is no level of service description.
- Agreements – there are none in place between the SLRD and the Bralorne Fire Protection Society, yet the society is expected to operate the service on the SLRD's behalf.
- Mapping – the only mapping available to the department at present is a single SLRD-generated plot of the entire service area (without house numbers and road names). Clear and current maps should be in the possession of the department and its dispatchers at all times for accurate dispatching and response.
- Budgeting – The existing residential tax rate of \$1.57 is relatively high for a rural fire service, but the generated budget of \$28,000 is very low for a department striving to attain insurance industry recognition. The society is not clear on priorities, or compliance with insurance industry standards. There is minimal budget management and accountability.
- Pricing and Purchasing is completed by the Chief with reimbursement from the society.
- Based on the most current information provided, liability insurance was placed by the society in the spring of 2013. In the absence of acceptable liability insurance at the society level, liability will quickly be shared with the SLRD and members of the department and society, personally. Firefighters have no known coverage for on-duty

injury insurance and many are self-employed. It is not known if the society carries property and asset insurances against loss, damage or theft.

- There is a complete lack of an Occupational Health and Safety program, yet the SLRD pays WorkSafe premiums on behalf of society's firefighters – effectively making firefighters employees of the SLRD without the associated oversight.

Fire Department Audit

Much like the Birken VFD, this department scored poorly against the BC Fire Commissioner's Inspection and Audit Checklist. In particular:

- Minimal Standard Operating Guidelines (SOGs) are in place, but further effort is required to produce more or refine existing ones.
- There is no OH&S program in place. There are no safety meetings and minimal record-keeping. No safety or incident records are maintained. As discussed, this is a regulatory requirement for any employer. No injuries have been reported (it is hoped and assumed that none have occurred).
- There is no Workplace Hazardous Materials Information System (WHMIS) certification in place. Although limited, there is firefighter exposure to automotive fuels, foams and retardants and other specialized compounds. Certification is simple and benefits all members in all walks of life.
- SCBA, ladders and hoses are not tested routinely.
- There is no scene-management training and no Incident Command training.
- There is a basic accountability program in place.
- There is no Loss Reporting to the Office of the Fire Commissioner.

RECOMMENDATIONS, BRALORNE VOLUNTEER FIRE DEPARTMENT AND FIRE PROTECTION SOCIETY

Priority	Comment
1	Pursue interim operating agreement with SLRD.
1	Acquire (or maintain) Liability Insurance covering all parties as soon as possible , if not currently in place. Notify SLRD upon coverage.
1	Establish a Safety Committee which meets regularly to identify and address safety concerns and follow up on identified issues. Dates, attendees and topics must be recorded and filed.
1	Initiate annual pump, hose and ladder inspections.
1	Decline to respond outside of protection area without specific agreements and SLRD authority.
1	Pursue development of a response plan with Bralorne Gold Mines.
1	In conjunction with SLRD, develop a constitution, or at least a documented course of action with objectives to assist fire department growth and direction. Consider increasing existing tax rate to facilitate apparatus acquisition. Current funding is inadequate.
1	Explore possible expansion/consolidation of Bralorne and Gun Lake areas, to possibly include Gold Bridge, Gun Creek and Tyaughton Lake Road (subject to identified comments) OR Transfer Bralorne service from SLRD auspices to society auspices (via SLRD contribution bylaw) and authorize the society to offer the service, with specific service, OH&S and insurance requirements, with liability waivers. OR Require capital and manpower upgrading of Bralorne service to meet <u>existing</u> FUS DPGs and then transfer operational responsibility from society to SLRD. OR Terminate this service.
1	Initiate training of all firefighters in BC Firefighter Certification Program.
1	Decline to pursue a Medical First Responder service until a) the SLRD Fire Services Review is complete, b) there is a thorough consideration of all issues related to this potential service, preferably with advice and guidance from a Fire Services Coordinator and c) the SLRD has granted that authority by bylaw and policy.
1	Catalog specific properties that are difficult to reach and develop pre-fire plans. Catalog properties that cannot be reached by BVFD and advise SLRD for follow-up.
2	Install security lock between meeting room and truck bay.
2	Reconsider the idea of encouraging initial suppression activity by residents in favor of printed information.
2	Retain all hoses at the fire hall.

2	Discontinue the practice of mustering firefighters by siren and telephone fan-out if the BVFD is intent on achieving FUS compliance. Equip all active firefighters with portable radios.
3	Consider installation of a vehicle exhaust ventilation system in truck bay.
3	Enroll active members in WHMIS training.

GUN LAKE FIRE PROTECTION SOCIETY

Site visit August 16th, 2013. Consultants were accompanied by society members Sal Demare, Al Leighton and Sheila MacDonald at the Demare residence.

General

Rudimentary fire protection is offered by the Gun Lake Fire Protection Society, with financial contribution (by bylaw) through the SLRD. There is no fire protection service established by bylaw and members lack any authority to enter on to property, other than as good Samaritans. The Society operates what would be best described as a fire brigade with very limited resources. There is no primary or secondary apparatus and no fire hall, although an equipment housing structure is under construction on land tenured by the SLRD, sub-licensed to the Society.

Minimal response capability is available for structure fires. The service is more aligned to assisting the Ministry of Forests with interface fires, the primary threat to the community because of climate, vegetation and topography.

The society is frustrated that the present arrangement is not working because the annual budget is very small and the majority of which is consumed by the cost of insurances.

Fire Hall and Property

The building site is a Crown License of Occupation, held by the SLRD with sub-license agreement to the society. Site is approximately 0.75 ha. in area and is located with level and adjacent access to the Gun Lake Road at the south end of the lake. Building plans have been submitted for a hybrid structure comprised of two 53-foot Type C shipping containers and an integral roof structure which will house one piece of vehicular apparatus between the two containers. Concrete foundations for the containers are complete. The containers themselves will house minor apparatus and equipment.



The completed structure will become an asset of the SLRD, as required by the tenure agreement.

Apparatus

The department carries no primary apparatus or supporting apparatus. Firefighting equipment consists of 3 utility-type trailers, each equipped with Wajax Mk. 3 pumps, poly water tank, forestry hose and small tools. Two of the trailers are towable by ATV.



Trailer Unit

Equipment is maintained by society members.

Manpower and Training

Current available manpower during summer months is approximately 10 members, diminishing to 5 or less during the winter. According to the society, there is no chance of reaching sufficient members for consideration by the insurance industry as 90% of area residents leave for the winter.

Training on pumps and equipment is regular and on-going. Members are trained to S-100 certification.

Volunteers are given no stipend for training or response.

Water Supply

The group is trained and equipped to draft from surface water sources (Gun Lake and contributory creeks) using portable pumps. Several residential water systems are also catalogued for use, if necessary.

Dispatch, Radios and Response

Fire calls are typically phoned in to a society member, who in turn initiates a telephone fan-out for additional members.

The society enjoys an excellent relationship with the Ministry of Forests.

Boundaries and Area

The fire hall is appropriately located within the service area and has immediate access to the main thoroughfare.

The service area consists of all properties around Gun Lake. Most properties have homes or structures on them. Only 10% of structures are lived-in year-round. Many properties and improvements carry high assessed values.

There is little chance of significant development within the existing fire protection area.

Existing mapping is poor and inadequate for fire services.

Under a separate section of this Review, the possibility of an expanded and amalgamated service area is discussed.
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Dwelling Protection Grading

Present Dwelling Protection Grade is 5, or “unprotected”. On its present course, there is no chance of recognition in the future.

Public Education

The society works hard to educate the community and takes every opportunity to distribute fire information and Ministry of Forests Fire Smart brochures. The society also has an active Face Book page.

SLRD Support

While the society enjoys a positive working relationship with SLRD staff, there is no formal agreement between the SLRD and the society and there are no levels of service stipulated in the bylaw, or by policy. Further, there is no requirement for financial accountability.

Present funding is inadequate and firefighting efforts are not sustainable. The society favors SLRD ownership and operation of a department for the area.

Unlike all other SLRD departments, the society pays its own WorkSafe premiums.

Although society members are very familiar with their service area, available mapping is very poor.

Some areas warranting attention would include:

- Establishment Bylaw – SLRD Bylaw 559 (1994) as amended establishes a financial contribution service only and carries a maximum tax requisition of \$3,750, collected by parcel tax. No Parcel Tax Bylaw was reviewed. There is no fire protection service established by bylaw.
- Agreements – there are none in place between the SLRD and the society.
- Mapping – the only mapping available to the department at present is a single SLRD-generated plot of the entire service area (without house numbers and road names). Clear and current maps should be in the possession of the department at all times.
- Budgeting – The existing parcel tax of \$14 generates \$3,750 for the society's efforts. Following payments of almost \$2,500 in insurances, there is little left for service requirements. There is clear and responsible budget management and accountability by the society.
- Pricing and Purchasing is completed by the Chief with reimbursement from the society

Fire Department Audit

No audit was carried out for this service.

RECOMMENDATIONS, GUN LAKE FIRE PROTECTION SOCIETY

Priority	Comment
1	<p>In conjunction with the SLRD, examine an expanded, amalgamated fire service area with Bralorne VFD, to include Gold Bridge, Gun Creek Road, Tyaughton Lake Road and any properties in between. If successful, develop a recognized fire suppression service,</p> <p>OR if above option fails, In conjunction with the SLRD, increase the Gun Lake Fire Protection Area tax requisition to a level that permits the development of a fire brigade with structural fire suppression capability,</p> <p>OR, if above options fail, Consider whether or not to proceed on the current path, with minimal funding and minimal equipment.</p>
1	<p>Establish a Safety Committee which meets regularly to identify and address safety concerns and follow up on identified issues. Dates, attendees and topics must be recorded and filed. (Despite its very small size and scope of responsibility, the society is still technically an employer, by definition under the Occupational Health and Safety Regulation of BC)</p>

SETON VALLEY VOLUNTEER FIRE DEPARTMENT

Site visit August 16th, 2013. Consultants were accompanied by Chief Frank Richings and Lieutenant Ken Mc Millan

General

The Seton Valley Volunteer Firefighters Society operates this department under authority of the SLRD's Bylaw 480 (1992). No agreements are in place between the two. The community's population is aging and dwindling and the department's roster is inadequate for response and operation of a rural fire department. Society-owned apparatus is obsolete, although it has access to a current pumper, owned by BC Hydro and housed at a different location. Ownership of the fire hall buildings and property are registered to the SLRD. The community is supportive of the fire department, but is unable to offer it the manpower to be a recognized department.

The protection area is flanked by Shalath First Nations settlements. Unfortunately, cooperative efforts between the Band (which has its own firefighting apparatus and a hydrant-equipped water system) and the fire department have not been achievable.

The department offers exterior attack only to structure fires and call volume is low, with 6 calls in 2012, 3 of which were search-and-rescue calls. The Chief is enthusiastic and energetic but, very much like other department chiefs reviewed, is facing declining interest in the service, obsolete equipment, little or no guidance or support and insufficient time to attend to the daily requirements of an operating fire department.

The department is not sustainable on its present course and risks losing its current Dwelling Protection Grade.

Fire Hall and Property

The main fire hall building is a 2-bay structure with generous meeting/training area. Building and grounds are very well considered and maintained. The department's principal response truck is housed here, while the adjacent bay is rented or leased to BC Ambulance Services. A second, detached building houses the department's tanker truck and equipment.

A standpipe is attached to the fire hall's water supply (a well) for rapid refill capability.

Buildings and property are owned by the SLRD. The hall is on a level property with immediate access to Seton-Portage Road with excellent sight-lines.



Seton Valley Fire Hall



Seton Valley Apparatus and Equipment Bldg.

In the main building, there is an overhead air exchanger (installed by BC Ambulance), but no “direct to tailpipe” vehicle exhaust ventilation system in the truck bay area. Both the truck bay area and the meeting room are spotless, indicating a high degree of pride, attention and maintenance. The meeting area is bright and functional.

The second building is cramped and also does not have a vehicle exhaust ventilation system.

No agreement between the SLRD and the BC Ambulance Service was observed but it is understood that such an agreement exists and has recently been renewed.

The fire hall is wired to accept an external generator feed during periods of extended power outages, making the building an ideal Emergency Operations Centre, if required. BC Hydro provided the wiring and switch gear at no cost to the society.

Apparatus

The department carries limited resources for structural firefighting with only one piece of primary apparatus, a tanker which is now obsolete. The department also has a single piece of secondary apparatus, a mini-pumper.

1978 Dodge 1-ton Mini-pumper retrofitted with a Compressed Air Foam system and 250 gal reservoir (owned by society).

1955 GMC 6-wheel-drive 2.5-ton Tanker with 1,400 gal Poly reservoir and 465 gpm pump (owned by society)



1955 GMC Tanker

The society also has access to a newer pumper truck, owned by BC Hydro and housed at a remote location. It is described as a 1991 IHC Hub 4x4 Pumper with 1050 gpm Hale pump and 500 gal. reservoir. The vehicle was not observed during the review. Although owned by BC Hydro, the fire department has immediate access to the unit, with permission to operate it when and as needed. No written agreement between BC Hydro and the Society was reviewed.

Because of its age and lack of re-certification, the tanker does not meet the requirements of the insurance industry. The mini-pumper, although very useful and versatile, also does not enjoy any recognition.

Following a dispatch, the mini-pumper is first to respond, followed by the BC Hydro pumper, then the tanker, as respectively necessary.

Apparatus and Equipment Maintenance

Pump maintenance on the primary and secondary apparatus is completed annually by qualified personnel and records are maintained at the fire hall.

Mechanical maintenance is performed annually by a local mechanic.

The Chief and firefighters maintain small equipment.

Manpower and Training

The current roster stands at 8 members with an assured attendance by 4 at any time of day. The core group is strong and recruitment is on-going. The Chief's primary concern is the aging current complement, the lack of new recruits and the lack of interest in the service. Several attempts have been made to jointly cooperate in training with the Shalath Band, but these have not been successful.



There is no Local Assistant to the Fire Commissioner for this department.

Training is carried out weekly with emphasis on primary apparatus operation and equipment maintenance. The department is not working to any specific standard. Most members carry S-100 certification for wildfire management.

Volunteers are given no stipend for training or response.

Subsequent to the site visit, the society has advised that it is pursuing liability insurance. Copies of this policy should be forwarded to the SLRD for verification that coverages, limits and co-insured parties are consistent with SLRD requirements.

Water Supply

Shalath South and Bridge River areas have hydrants and the department refills from these when necessary. No use agreements with BC Hydro or the Shalath Band are known to be in place.

A standpipe on the fire hall property, fed by the high-volume, high-capacity well and pump is used to replenish or refill tanks.

The society has placed several 2,000 gallon steel tanks with rapid-discharge plumbing around the community for use during frost-free months.

The society is well-trained to draft from surface water sources whenever necessary.

Dispatch, Radios and Response

The department is equipped with portable radios and enjoys an excellent dispatch service provided by Surrey Fire Dispatch in conjunction with the SLRD's 911 program. The satellite back-up system in place is currently used as the primary system because of the better coverage offered throughout the protection area. Radios are licensed by the society.

The department does not perform interior attack and does not have a high call volume.

The department enjoys a very positive relationship with the Ministry of Forests with sharing of resources, as appropriate. Several interface fires have threatened the community in the past.

BC Hydro has also been a keen supporter of the service, assisting with materials or services as it can.

Boundaries and Area

The fire hall is appropriately located within the service area and has immediate access to the main thoroughfare.

A map generated by the SLRD currently displays road names, property boundaries and house numbers for a very small portion of the protection area, but better mapping of the entire service area is needed. There is little chance of significant development within the existing fire protection area.

As mentioned, the area is flanked by First Nations settlements and no success has been reached with mutual assistance initiatives. The Shalath Band has its own fire department, but according to Chief Richings, it is not organized or particularly functional. The Seton Valley VFD will not respond to fires on First Nations lands without a mutual aid or other agreement in place.

Dwelling Protection Grading

Present Dwelling Protection Grades are 3A “hydrant protected” and 4 “firehall protected”. It is assumed that the 3A applies to the Shalath South and Bridge River areas. The Seton Valley status of “firehall protected” is at risk of loss unless the department upgrades its primary apparatus and confirms a permanent roster of 15 members, plus a Chief.

Given the apparatus costs, current funding levels and recruiting difficulty, this is unlikely to occur soon, if at all. The society carries some funds in reserves – the exact amount is not known.

Public Education

The fire department has been very visible, especially during the recent interface fires and has been active with public education, particularly with distribution of Fire Smart brochures.

SLRD Support

The department enjoys a positive working relationship with SLRD staff. There is no formal agreement between the SLRD and the society, so objectives, purpose and understanding of governance and liabilities are vague and much of the workload falls to a very few volunteers. The Chief is also the Society Treasurer. The society meets infrequently.

Available mapping is inadequate and absence of house numbers and road names makes dispatch and response challenging.

Some areas warranting attention would include:

- Establishment Bylaw – SLRD Bylaw 480 (1992) as amended carries a maximum tax requisition of \$12,500 and the current requisition is \$12,250. There is no level of service description in the bylaw.
- Agreements – there are none in place between the SLRD and the Seton Valley Fire Protection Society, yet the society is expected to operate the service on the SLRD’s behalf. There were no tenancy agreements reviewed between BC Ambulance although SLRD staff has advised that one exists (which contributes \$10,287 to fire department revenues). There were also no written agreements reviewed between BC Hydro and the fire department for use of a primary piece of apparatus or for storage of SLRD

telecommunications equipment on BC Hydro property. It is understood that the fire department has attempted to establish some form of agreement with the Shalath Band for mutual assistance and hydrant use.

- Mapping – mapping is inadequate for dispatching and response. Although some detailed mapping is available for a portion of the area, clear and current area-wide maps should be in the possession of the department and its dispatchers at all times.
- Budgeting – The existing residential tax rate of \$0.60 is relatively low for a rural fire service and the generated requisition of \$12,250 is also very low for a department of this size. According to SLRD staff, annual rental revenue from the ambulance quarters is approximately \$10,287 which is in turn transferred to the society. The assumed aggregate of \$22,537 is still low for an operational budget. Surpluses, if any, are retained by the society in a reserve account. There is no known financial accountability. The society is not clear on priorities, or compliance with insurance industry standards.
- Pricing and Purchasing is completed by the Chief with reimbursement from the society. The Chief is the Society Treasurer also.
- Insurances - Based on information provided, liability insurance is only just being considered. In the absence of liability insurance at the society level, liability will quickly be shared with the SLRD and members of the department and society, personally. Firefighters have no known coverage for on-duty injury insurance and many are self-employed. It is not known if the SLRD or the society carries property and asset insurances against loss, damage or theft.
- There is a complete lack of an Occupational Health and Safety program, yet the SLRD pays WorkSafe premiums on behalf of society's firefighters – effectively making firefighters employees of the SLRD without the associated oversight.
- There has been Small-Claims litigation in process by a disgruntled volunteer against the Chief and the society regarding payment of wages by the BC Forest Service during an interface fire. In support of its volunteers and Chief at Seton Valley, the SLRD attended to legal fees and the case has now been dismissed.
- The Chief is prepared for the potential closure of the department if manpower and resources continue to dwindle but is equally prepared to encourage the changes necessary to ensure the sustainability of the service.

Fire Department Audit

Like the Birken and Bralorne VFDs, this department scored poorly against the BC Fire Commissioner's Inspection and Audit Checklist. In particular:

- Minimal Standard Operating Guidelines (SOGs) are in place, but there is not enough time or desire to produce more or refine existing ones.
- There is no OH&S program in place. There are no safety meetings and minimal record-keeping. No safety or incident records are maintained. As discussed, this is a regulatory requirement for any employer. The Chief is aware of the reporting requirements in the event of an injury.
- Approximately half of the active members have completed Workplace Hazardous Materials Information System (WHMIS) certification. Although limited, there is firefighter exposure to automotive fuels, foams and retardants and other specialized compounds. Certification is simple and benefits all members in all walks of life.
- SCBA, ladders and hoses are tested, but not sufficiently to meet established standards.
- There is Incident Command training in place, but no Scene Management training.
- There is a no accountability program in place.
- There is no Loss Reporting to the Office of the Fire Commissioner.

RECOMMENDATIONS, SETON VALLEY VFD AND FIRE PROTECTION SOCIETY

Priority	Comment
1	Pursue operating agreement with SLRD.
1	Pursue cooperation agreement with BC Hydro, notably for use of pumper), OR Request transfer of pumper ownership from BC Hydro to SVFPS
1	Acquire Liability Insurance covering all firefighters as soon as possible , if not currently in place.
1	Establish a Safety Committee which meets regularly to identify and address safety concerns and follow up on identified issues. Dates, attendees and topics must be recorded and filed.
1	Initiate annual pump, hose and ladder inspections.
1	Decline to respond outside of protection area without specific agreements and SLRD authority.
1	Initiate training of all firefighters in BC Firefighter Certification Program.
1	In conjunction with SLRD, develop a constitution, or at least a documented course of action with objectives to assist fire department growth and direction. Determine whether SVVFD wishes to remain FUS-compliant, become a fire brigade, or cease to operate.
3	Consider installation of a direct vehicle exhaust ventilation system in truck bay.
3	Continue enrolling active members in WHMIS training.
3	Consider distancing Fire Chief/ Society Treasurer relationship.

STEP 2

Step 2

REGIONAL DISTRICT OVERSIGHT OF ITS FIRE SERVICES

This section of the Review examines the Squamish-Lillooet Regional District's governance and management of the six identified fire services. Establishment bylaws, regulatory bylaws, Board Policies and operating agreements are all required to meet legislative, safety and operating requirements to adequately and safely deliver services of this nature.

In addition to the requisite authorities and instructions for its fire services, the SLRD's capacity to oversee the routine operational requirements (such as advice, purchasing, technical assistance, training direction, common procedures, etc.) is also assessed.

To deliver a reasonable service, fire services need to have access to reasonable budgets. This is discussed and comparisons to other jurisdictions with similarly-sized services (with the exception of Gun Lake) are included.

Analysis is also provided for existing society and possible committee involvement in the operation and/or delivery of services.

Prioritized recommendations for action by the Squamish-Lillooet Regional District are contained within this Step 2,

- Priority 1 requiring immediate attention
- Priority 2 requiring attention in the short-term
- Priority 3 requiring attention as funds and timing permit

Following from this, Step 3 will offer follow-up in the form of recommended Bylaw and amendment wording, Board policies, Agreement wording, Occupational Health and Safety provisions, Standard Operating Guidelines for fire departments, a Fire Chiefs Handbook and a Public Information Package.

Overview - SLRD Administration and Governance Overview

As can be seen by the contents of Step 1, the SLRD's six fire services are in disarray from a governance perspective and all are in need of clear, operating oversight, expectations and safety provisions.

The situation is compounded by the fact that the SLRD has allowed three completely different forms of service delivery, all with dedicated funding through the SLRD:

- ✓ Service provided directly by the SLRD (Britannia Beach and Garibaldi)
- ✓ Service provided by a third-party society (Bralorne and Seton Valley)
- ✓ Service provided directly by a society under financial contribution (Birken and Gun Lake)

At present, only Britannia Beach and Garibaldi (the two services provided directly by the SLRD) are sustainable models with fairly current equipment, a good understanding of service delivery and compliance with the requirements of the Fire Underwriters Survey for "recognized" service. These two departments only require assistance with clear, administrative direction (coordination, budgeting, purchasing, mapping, records management, OH&S obligations, etc).

Bralorne and Seton Valley are presently delivered by a "contracted" or delegated society within SLRD service areas, without any specific agreement or instruction, without demonstrable liability insurances in place, without adequate equipment or funding, without any financial accountability and in areas with low and diminishing populations. To "muddy the water" further, the SLRD has elected to attend to the costs of WorkSafe premiums for the two departments' members – effectively making every member an employee of the SLRD (by definition, BC Occupational Health and Safety Regulation). **These two fire services currently pose extreme liability exposure and financial risk to the SLRD, the societies and to the firefighters and neither of the services are sustainable on their present courses.**

Birken and Gun Lake services are delivered entirely by society members, with annual, fixed financial contribution (by bylaw) from the SLRD. While this is typically a fairly "clean", arm's-length type of arrangement within local governments, for these particular services there are **no contractual agreements** and **no financial accountability**. Further, **both are under-funded** to the point that they are marginally effective as service providers. Once again, the SLRD has elected to attend to the costs of WorkSafe premiums for Birken only, not Gun Lake.

- Gun Lake's service is fully-compliant with a typical Contribution Bylaw service, in that the Society "does what it can" with available funding, carries its own liability insurance and attends to its own WorkSafe premiums. It operates under a clear Society constitution and internal budgeting is clear and concise. Its current funding level does not permit any service expansion. While the service is marginally-sustainable, it nonetheless poses the least risk exposure to its members and to the SLRD, despite the fact that the SLRD does not require any annual financial accountability.

- Conversely, **Birken's service places its society, its members and the SLRD at significant risk** because the society carries no known liability or all-risk insurances and no vehicular insurance on a potentially useable piece of primary apparatus. Society members are technically employees of the SLRD (as SLRD pays WorkSafe premiums) and there is no annual financial accountability. This is another non-sustainable fire department on its present course.

The Role of Regional Districts in Fire Service Delivery

Regional districts are eligible to apply for specific authority from the Province to develop and deliver services and rural fire suppression service is no exception. Regional districts provide an excellent platform for service delivery because of their ability to assess and confirm public support, develop a clear regulatory framework, requisition taxes to support the service and follow up with guidance and support for its services. Regional districts can further determine what level of involvement they wish to have by operating the service directly within an established area and under the oversight of its own personnel, or by contracting or delegating the responsibility of service delivery to others.

Another large advantage of regional district service delivery is access to collective services such as liability insurance, borrowing and resource-sharing, all of which offer dramatic cost-savings in service delivery. These are extremely important for a successful fire service because:

- Fire suppression services are inherently risky services which pose liability exposures on several fronts.
- Flexible borrowing at reasonable rates can mean the difference between failed or successful service initiatives in a rural area.
- The sharing of resources and information among regional districts (and other local governments) avoids the repetition of mistakes made by others and often produces a concept or approach not previously considered.

Yet another advantage for many local government services is the substantial rebate of federal taxes paid initially on purchases – an added advantage for the fire service because fire suppression-related equipment is costly.

These resources are not available to non-government agencies, societies or improvement districts.

The Involvement of Societies in Fire Service Delivery

Societies are very often the catalyst for new services and typically demonstrate a community's desire for a new function that a local government is unavailable, unable or unwilling to initiate, or take on. Societies in the fire service are common and often have their roots dating back to a catastrophic event, leading to fund-raising efforts, acquisition of rudimentary apparatus, volunteer construction of a building to house apparatus and the development of a core group of firefighters.

History has shown that as the fire service expands, it requires a steady and increased flow of funds to meet operating, regulatory and safety criteria, to the point that typical fund-raising efforts become inadequate and onerous. Hence, the local government is petitioned to assume either funding or operational responsibility (or both) for a sustainable service. If local government does assume the function, it may operate it:

- As a local service area with its own jurisdictional requirements (policies, regulatory bylaws, etc),
- As a local service area, but by contracting with the society to provide the service with specific operating and safety requirements identified in an Operating Agreement, or,
- By contributing annual funding to a society, by bylaw, with a completely “hands-off” involvement by the local government. No service, no risk, so to speak.

The fire protection and suppression service is most often guided by insurance and regulatory requirements, because “recognition” by the insurance industry typically results in very dramatic reductions in residential and business insurance premiums – in most cases in rural areas, the cost of fire protection is comfortably offset by the reduction in insurance premiums. But that “recognition” comes at a cost, with compliant equipment, quarters, safety equipment, dispatching and (the most difficult challenge in rural areas) stable manpower throughout the year. The agency responsible for determination of insurance industry compliance in BC is the Fire Underwriters Survey.

Equipment certification and the growing trend of necessary risk management both add significant cost to the service, requiring clear operating structure to optimize available funding.

History will show that when a fire department reaches a level of insurance recognition, with increased risk, workload and cost, societies give way to local government ownership and operational responsibility for the service, although societies often remain available as fund-raisers to support firefighter interests, recruitment and retention.

Ownership and/or operational responsibility of a recognized fire department by a society is not seen as sustainable because of the operating and cost advantages available to local governments (liability insurance, all-risk insurance, grant funding opportunities, etc). Further, societies do not carry the formal authority to enter private property.

How Other Regional Districts Oversee their Fire Services and Public Input

Regional districts most often rely on volunteer organizations to either operate services or to provide input and advice to the Board.

Societies typically are the same ones that led to the establishment of the service and may even operate the service on the regional district’s behalf, under contract (or Agreement). As discussed earlier, the delivery of fire services by societies is not seen as a sustainable approach. Further, the advice offered to a regional district by an operating society will likely be specific to operating and cost requirements and there would be little opportunity for comment by the residents of the fire suppression area in general.

The most comfortable and productive role for a society in the fire service (unless charged with direct operating responsibility) is a firefighter support role. Recruitment and retention of firefighters in rural settings is one of the greatest challenges faced by the service, so societies can continue to raise funds to provide attractive features for firefighters (events for members and families, open-houses, recreational items, training in areas that benefit, but are not essential to the service, etc).

Service Area Committees, groups of duly-elected members of the public from each fire suppression area, are often utilized by regional districts to provide ratepayers' input to the Board and vice-versa. Over the years, committees have also been charged with some operational or maintenance components of the service because of a lack of regional district staff. Committees are established by bylaw and are advisory to the Board. Without diligent supervision, these committees can become difficult to manage because of the "ownership" perception, dislike/distrust of local government and misunderstanding of the intended role. This model requires extensive staff involvement to address committee enquiries and actions, to be present at annual general meetings and to provide Board direction.

Sub-regional Committees are similar in that they are established by bylaw and are advisory to the Board, but these are represented by one duly-elected member (not a Director and preferably, not a senior member of a fire department) from each Electoral Area that carries a fire service and typically meet quarterly, at a common location with regional district staff (but as always, Directors are most welcome to attend as observers). In the SLRD's case, this should include all fire services, including those provided by societies, so that the Board can be apprised of successes, failures, needs for improvement and in general, the health of the fire service. The last meeting of the year would be dedicated to budget preparation for the following year and should be attended by the Financial Services Manager as well. This format is less complex and is more productive to the Board – it also requires far less staff involvement than with the multiple service area models.

In addition to a volunteer public-input group, dedicated, regional district staff – typically a **Fire Services Coordinator** – is now utilized by most regional districts because of the complexity, operating risk, liability risk and changing regulatory environment around fire services. The great majority of rural fire departments are provided by volunteers, so the coordinator's efforts take a huge burden from fire chiefs who also carry employment, family and fire department leadership obligations. As important, the coordinator strives to have all fire services of a regional district attaining common levels of service, training, reporting and above all, safety.

The Roles of Other Agencies around a Rural Fire Service

The Fire Underwriters Survey (FUS) is a century-old agency which provides a service to both the insurance industry and to local government. Its purposes, in basic terms, are to:

- Establish minimum criteria for fire departments that, if satisfied, will permit the issuance of a Dwelling Protection Grade (DPG) that may result in lower home and business insurance premiums (based on the lower risk of fire loss). To arrive at a DPG, the FUS considers the size of the protection area, type and currency of apparatus, type of firehall, availability and management of water, types of protective equipment, type of dispatching method and most

importantly, the number of available, trained responders. These combined provide information about how quickly the minimum amount of apparatus and manpower can reach a fire scene at any time of the day/week/year in order to minimize fire losses.

- Provide advice to insurance firms about the DPG within any given fire protection area so that the appropriate residential insurance discount can be offered. It stands to reason that the better the DPG, the less risk of fire loss and so, the better the insurance premium discount.

In rural areas of BC, the most common DPGs range from 5 (unprotected/no recognition of a fire department) to 3A (protected by a recognized/compliant firehall and access to water from an approved water system's hydrants). DPGs lower than 3A typically require sophisticated equipment, access to large, hydrant-equipped water utilities and full-time (paid) firefighters.

More information can be found on the agency's website www.fireunderwriters.ca

(The SLRD's fire services and their respective, current DPGs, effective August 9, 2013, can be found later in this section)

The National Fire Protection Association (NFPA), established in the late 1800s, is an institution that has researched and developed equipment, firefighting and training standards for fire suppression activities in North America (but is recognized world-wide). The principal focus is and always has been safety in the delivery of the service. Although there is no requirement by local governments to "comply with NFPA standards", it will be quickly apparent that all fire-fighting apparatus, equipment, protective gear and training modules have been developed and manufactured to very specific NFPA specifications. Recognizing all of the characteristics of the service (fire, fuels, exposures, haste, stress, sophisticated apparatus, etc), the principal objective has been safety. More information can be located on the NFPA's website at www.nfpa.org

The BC Office of the Fire Commissioner (OFC) is a provincial agency charged with administration of the BC Fire Code, provincial fire loss reporting, fire cause and determination, public fire safety and education and assistance to local government fire services. The OFC is almost always present during local emergencies that require integrated fire service management and evacuations. The OFC is a valuable resource with standardized information for fire departments of all sizes. The OFC also recruits and trains Local Assistants to the Fire Commissioner (LAFC) in as many service areas as possible and the role of the LAFC is to assist with fire investigation, assist with Fire Code administration locally and to report fire losses in the respective areas. More information can be located on the OFC's website at www.embc.gov.bc.ca/ofc

The BC Ministry of Forests has, over the years, developed a very strong and positive relationship with local governments and their fire services. Its Wildfire Management Branch is responsible for suppression and management of naturally or human-caused forest fires. However, when forest fires threaten communities, they are known as Wildland-Interface fires and these become a priority for action. It stands to reason that if the threatened community has a fire service, its services become critically important to the effort – primarily with the supply of water, but also with trained manpower and small pumps, if available. There is no expectation that the fire department leave its service area to

assist, but if there are specific local government guidelines in place, fire departments occasionally leave the area to assist – provided that the community is still adequately protected against structural fire, the primary mandate. The Ministry will compensate assisting fire departments in most circumstances, but it must be remembered that the responsibility for fire suppression within a service area remains that of the service area and its fire service, regardless of whether lands within the service area are Crown lands, with or without structures.

WorkSafe BC, formerly WCB, carries the mandate to oversee workplace safety, to follow up on reports of injury/death at a workplace and to enforce its regulations. Local government services are workplaces. Fire services are carried under a specific section of the BC Occupational Health Regulation, Section 31, which sets out minimum safety requirements. The Regulation also considers all firefighters (volunteers or otherwise) to be employees of its parent agency, whether a local government or Society and must be afforded the same safety protection as all other employees. All agencies must have regular meetings to discuss safety concerns, all items must be followed up and all meetings, attendees, minutes, actions and follow-up must be documented and available for examination by an inspector at any time. With larger agencies (local governments with fire department rosters exceeding 21 members, for example), an Occupational Health and Safety Committee is required. Fire suppression activities must not be initiated without specific and documented training. The Regulation carries very significant and potentially retroactive penalties to supervisory personnel and corporations for non-compliance.

The Squamish-Lillooet Regional District's Fire Services

For the purposes of this Review, this section will be broken into specific categories to provide a better understanding of findings.

The Risk Factor

As is evidenced by the Step 1 review, the SLRD has a fire service that is in desperate need of help and several area-specific services are approaching collapse. Bylaws are aging and inadequate, policies are weak, operating agreements are non-existent, funding for most is inadequate and compliance with safety regulations has not been considered. The combination of these and other factors places the corporation, its agents, its service societies (and their members) and finally, its firefighters at substantial risk.

Contracted or service-delegated societies have no agreement, instruction or oversight whatsoever to safely deliver a regional district service. Some of the societies have not even carried liability insurance to protect themselves, let alone the SLRD. Not one of the six services has a formal safety program and the SLRD has not developed an Occupational Health and Safety Program or Committee for its larger departments.

There are numerous challenges with the service currently and the Board needs to determine whether it wishes to offer safe, effective and compliant fire suppression services or cease to provide any fire service at all.

The Board must also establish clear direction regarding how to deliver services and to what extent it involves societies and must do so with safety and risk-management at the fore. For example:

- The two largest departments fully under the auspices of the SLRD (Britannia Beach & Garibaldi) are generally successful and sustainable and require only some SLRD guidance – there is no society involvement in service delivery. This is seen as **medium to low risk**.
- One of the two “contribution only” services (Gun Lake) is a good model of “hands-off” service delivery by a society (although it is critically under-funded) - a **low risk**. The other (Birken) has been compromised by SLRD-payment of WorkSafe Premiums and a complete absence of liability insurance or a safety program by the society. The Birken service poses **very high risk** to the SLRD, is under-funded and is non-sustainable.
- The two “contracted”, or delegated, society-operated services (Bralorne & Seton Valley) have been operating without any agreement, accountability, known liability insurance or safety program and deliver a service with obsolete (and potentially unsafe) apparatus. Neither is sustainable and both pose **extremely high risk** to the SLRD – this is compounded by the fact that the SLRD also pays for WorkSafe premiums for society members.

There are no Board Policies in place that establish levels of service, types of service, levels of insurance, requirements for appointment and so on. These are needed to guide the Board and service in the future.

Existing Supervisory Capacity

At present, there are no dedicated personnel responsible for SLRD fire services. The service is currently overseen, by default and as time permits, by the Director of Administrative Services, who also oversees corporate administrative functions, project management, the 911 service and transit, among other matters. The service was previously overseen by the CAO.

A broad spectrum of unrelated responsibilities for supervisory staff is common in regional districts, but eventually, certain services require either more involvement from a time perspective, or involvement by specialty personnel – or both. Given the disarray of the SLRD's fire service from both a regulatory and operating point of view, as well as the conditions under which each is expected to operate, there is a definite need for a dedicated fire services coordinator with knowledge of the service and local government. The position need not be full-time and could be a contracted, or shared one, reporting to the Director of Administrative Services.

To reiterate, this is not a criticism of current personnel – it is simply an identification of the need for oversight of a unique and challenging function. Most regional districts carry a position of this nature.

The services of a coordinator would relieve fire chiefs of a number of duties for which they have little time, or interest, but which must be completed.

A budget of \$25,000 to \$30,000 annually would likely secure those services on a 30% to 50% part-time basis.

Establishing Bylaws

Existing Establishing Bylaws range in age from 38 years (Bralorne, 1975) to 7 years (Howe Sound East/Britannia Beach, 2006). Earlier bylaws describe their service area in metes and bounds (a written description of every property line forming the area's perimeter boundary), an out-dated form of description. Others refer to a map which forms a part of the bylaw, which is a current form of description. Unfortunately, the quality of existing maps is poor and they provide little reference information.

Some bylaws have been amended to reflect increased tax requisition. (See table on next page).

Area	Bylaw/Date/Type(Establishing or Amending)	Comments
Bralorne	69 (1975) E	Obsolete format, description in metes and bounds Last amended 1985
Garibaldi	97 (1976) E	Obsolete format, description in metes and bounds No requisition limit – no amendments
Seton Portage/Shalath	480 (1992) E	Obsolete format, poor map.
Seton Portage/Shalath	1225 (2011) A	Amending bylaw, current format, no map
Gun Lake	559 (1994) E	Obsolete format, poor map
Gun Lake	1143 (2009) A	Amending bylaw current format, no map
Birken	684 (1999) E	Current format, poor mapping
Birken	1144 (2009) A	Amending bylaw, current, clear
Howe Sound East	1032 (2006) E	Current format, poor map
Howe Sound East	1145 (2009) A	Amending bylaw, current format, no map

Depending on the Board’s preferred course of action, this Review and its recommendations presents an opportunity to update older bylaws to a common format by converting them to Local Service Area Bylaws under the Local Government Act. This process further offers the opportunity to remove un-managed Crown lands from service areas, clarify levels of service and add concise mapping.

A draft replacement bylaw format will be appended to this report for the SLRD’s consideration in Step 3 of this Review.

Regulatory Bylaws

The SLRD’s Fire Protection Services Regulatory Bylaw 1110 (2008) is somewhat of a “catch-all”, in that it endeavors to contain fire department authorities, Board Policy, operating guidelines, open burning regulation and enforcement provisions. Many of the contents are neither practical, nor legal (as examples, a fire chief cannot order an evacuation, nor should a volunteer fire department of these sizes consider Dangerous Goods or Hazardous Materials Spills response).

The bylaw’s contents also fail to recognize that SLRD fire departments are all volunteer-operated and the issuance of Orders and the administration of open-burning regulations are unreasonable

expectations – these are better suited to a Bylaw Enforcement Officer, with the fire departments' assistance. The only inspections that a rural fire chief should perform exclusively are Fire Cause and Determination inspections following a fire (training and authority for which are offered under the Local Assistant to the Fire Commissioner program for loss reporting and reporting of fires of a suspicious nature) and any preventative inspections should be performed with the assistance of either a Building Inspector or Enforcement Officer.

It must also be remembered that (with the noted exceptions) buildings, equipment and apparatus are the property of the SLRD and while the Chief assumes responsibility for their operation, the department has no authority to spend in the absence of very specific guidelines and as such, the chief's role is "advisory to the SLRD".

The bylaw does, quite rightly, include only Britannia Beach and Garibaldi – the only fire departments that are true SLRD fire services, with FUS recognition and with authority to enter private property – in its schedule.

Again, this Review provides the opportunity for amendment to establish;

- Levels of service provided by the fire departments (eg. rural structural fire suppression, motor vehicle fire suppression and assistance with wildfire suppression, where applicable.)
- Limits of service provided by the fire departments (no departure from area without specific authority, no other services [medical first responder, highway rescue, search and rescue, hazardous materials response] without specific SLRD authority, assistance to Ministry of Forests and other agencies, etc)
- A cross-reference to Board Policies related to the fire service.

For operational and compliance reasons identified earlier, none of the other four SLRD fire services should be included in this bylaw, at this time.

A draft replacement bylaw format will be appended to this report for the SLRD's consideration in Step 3 of this Review.

The SLRD may also wish to develop a (or amend an existing) Fees Bylaw which includes an opportunity to charge for extraneous costs incurred at a fire scene (for example, Britannia Beach's experience with un-managed vegetation on private land) and should be followed with Board Policy. This will be examined further in Step 3.

Budgeting (*Britannia Beach and Garibaldi*)

It would appear that the SLRD currently does not participate in Capital Asset Replacement budgeting which would see to the appropriate taxation and transfers of funds into capital reserve accounts (established by SLRD bylaw) annually, to facilitate debt-free acquisition of apparatus within a known time-frame. This applies only to Britannia Beach and Garibaldi at this time. There are obvious advantages – no borrowing (with associated assent/administration/interest) and no spikes in tax rates.

Both of these departments will require new apparatus within 5 years and if new replacements are being considered, budgets of at least \$275,000 per vehicle should be considered and planned for both. No Capital Reserve Establishment Bylaws were reviewed.

Operating budgets for Britannia Beach and Garibaldi were reviewed and both carry reasonable costs, although Garibaldi's is slightly lower than the median of \$125,000, in comparison with other departments its size (although this likely reflects the substantial financial contributions by the local society). This amount is based on the costs to operate a fire department which has achieved compliance with a 3A Dwelling Protection Grade and also includes a realistic training allowance, honorariums for firefighter attendance at training/ fire calls and also a contribution towards the services of a fire services coordinator.

In the case of Garibaldi, a separate society raises funds to purchase equipment and even vehicles. At Britannia Beach, firefighters themselves are contributing funds to tools and other equipment. Consideration should be given to halting this for a few of reasons;

1. The practice somewhat skews the actual operating costs of the fire department.
2. The responsibility for fire department operational costs is that of the service area which agreed at referendum, to support the service and
3. A question arises as to who actually owns key components of the service. As these are regional district services, all assets should be owned by the regional district.

A sample budget, by comparison with similarly-sized, FUS DPG 3B rural departments follows on the next page.

Administration (assume 5%)	5,800 (may include contribution to a fire coordinator position)
Dispatch	700
Building Maintenance	4,000
Equipment Maintenance	3,000
Communications Equipment	2,500
Electricity	3,000
Equipment/Lease/Rental	500
Heating	3,000
Honorariums	20,000
ICBC	3,500
Insurance (liability/all-risk)	1,500 (shared with other rd functions on a pro-rata basis)
Minor Equipment	10,000
Miscellaneous	2,000
Reserve	25,000 (arbitrary, but minimal amount)*
Snow Removal	2,500
Supplies	3,000
Telephone/Internet	3,000
Training	10,000 (for an established department)
Travel	1,500
Truck Expenses	10,000
Volunteer Firefighter Insurance	6,000
WorkSafe	500 (shared with other rd functions on a pro-rata basis)
Total	120,000**
<i>*Actual amount should depend on known future acquisitions</i>	
<i>**Does not include Debenture and Interest payments</i>	
<i>Note: A department carrying a 3A DPG may also carry a hydrant maintenance budget of \$3,000 to \$5,000</i>	

Budgeting (*All others*)

As has been expressed several times, the operating budgets for the remaining SLRD fire services are woefully inadequate for any sustained or improved operation.

Bralorne and Seton Valley, the SLRD's own fire protection areas, operated by "contracted" society, are non-compliant and failing and the respective societies do not appear to have placed realistic funds into capital acquisition reserves. Both Bralorne's and Seton Valley's equipment and manpower composition pose an imminent loss of the 4 Dwelling Protection Grade.

Small departments of this size typically operate with an annual operating budget of \$70,000 or more. Bralorne's budget is \$30,000, while Seton Valley's is \$22,537 with residential tax rates of \$1.57 and \$0.60 respectively.

These operating and financial models are inadequate and there are limited choices for change.

Gun Lake and Birken, society owned and operated functions, also presently operate with inadequate funds to sustain their respective operations, let alone expand and improve them.

Birken, like Bralorne, operates on a contribution of \$30,000 annually – less than half of the suggested \$70,000 minimum and the condition and status of the operation proves this point. There is no requirement for financial accountability of the annual contribution.

The Gun Lake service is an anomaly, service-wise. It is not a structural responder, has very limited resources and is in need of guidance toward its future. It does however, operate from a clear constitution and budgeting and budget accountability are clear.

A Possible Option for Birken

This service requires a substantial boost in operating funds to meet basic safety, equipment and operating requirements. Two approaches should be examined by the SLRD:

- The existing residential tax rate of \$0.53 is low for a rural fire service and consideration should be given to increasing this to meet identified operational deficiencies and to facilitate apparatus purchases. These will require public assent and borrowing authorizations.
- Based on comments received by the Chief, there may be an interest in inclusion to the fire service by non-First Nations residents of D'Arcy and Devine. This should certainly be explored by the SLRD as the increased revenue and possible increased manpower commitment may permit the positive expansion of the department. **Note:** It must be clearly identified to D'Arcy and Devine area residents that distance from the firehall exceeds 8 kms and residents should check with their respective insurance firms to see if they will be recognized for home insurance discounts **if** the fire department is successful in meeting FUS recognition. For example, some insurance firms, such as Wawanesa, often consider extending coverage to 13 kms from the fire hall. Residents should also be asked to commit to volunteer support of the fire department to help maintain a healthy roster, exceeding 15 firefighters. **Note also:** Although a cooperative

service with the First Nations settlement is a desirable outcome, there is little likelihood of a successful, mutual service arrangement and it would not be prudent to rely on such an agreement.

An orthographic image of the area is appended to this report as Appendix B.

A Possible Option for Bralorne and Gun Lake

As with Birken, Bralorne requires a very significant injection of funds to meet basic safety and operating requirements and to address acquisition of apparatus.

Gun Lake's very minimal budget permits no expansion of its very minor service, but the appetite for an improved (possibly even FUS-recognized) fire service has yet to be explored in detail. The society is frustrated with its inability to provide expanded service and is questioning its interest with continued efforts as they are.

The SLRD may wish to examine a larger fire suppression area which would comprise Bralorne, Gold Bridge (which currently has no fire service) and Gun Lake as well as currently unprotected properties between the communities and along the Gun Creek and Tyaughton Lake Roads. If the SLRD is to pursue this, it should consider the development of a department which meets a minimum 3B DPG throughout the new area, with response not exceeding 13 kms from a responding hall. As there is no compliant apparatus available within that area at present, consideration would need to be given to major apparatus acquisitions. The SLRD currently owns a fairly modern building in Gold Bridge (the Library Building) with two truck bays and administration facilities above. The ground floor of the building is now leased to the BC Ambulance Service for ambulance quarters. With some modification, this building could be converted to a compliant fire hall and further, it would be located fairly centrally to the proposed service area (distance to Bralorne from the Gold Bridge building is 12 km and distance to the Gun Lake fire hall site is 7 km. Unfortunately, the Tyax Lodge on Tyaughton Lake exceeds a reasonable response distance at 23 kms). The building would require modification to install 14-foot, roll-up doors (currently 10 or 12-foot) and truck bays of at least 30 feet length and 12 feet high (currently approximately 22-feet long with vertical obstructions) to accommodate primary apparatus.



SLRD-owned Building – Gold Bridge

In addition, initial response vehicles (perhaps mini-pumpers with CAF capability) would need to be stationed at Bralorne and Gun Lake to respond locally to a call while primary apparatus is dispatched

from Gold Bridge – one could be housed at the existing Bralorne firehall and at the other at Gun Lake's proposed building.

Notes:

- Residents living beyond 8 kms from a responding hall should first contact their insurance firms and investigate options for discounted insurance premiums
- A proposal of this nature, once designed, should be discussed with the Fire Underwriters Survey

General FUS Requirements and Estimated Costs

The following is a very cursory listing of major capital components required to meet FUS recognition, with estimated costs. More detailed information is available on the Fire Underwriters Survey website at www.fireunderwriters.ca and the Office of the Fire Commissioner's website.

• Fire Hall – min. 40' x 60' with two truck bays and training area. Basic design.	\$375,000
• Principal Pumper Truck (min. 840 gpm pump, 500 gal reservoir, under 25 years).	\$250,000
• Supporting Tanker Truck (min. 1,000 gal reservoir, safe, under 25 years).	\$200,000
• Radios	\$25,000
• Turn-out gear for 18	\$35,000
• Hoses, ladders, portable tanks	\$30,000
• Breathing Apparatus – min 6 sets	\$20,000
	\$935,000*

**Land costs have not been included, nor have the costs of secondary apparatus.*

Costs shown are for **new building, apparatus and equipment. Some economies can be sought with used or retro-fitted apparatus components, but caution needs to be exercised.*

Certainly, an existing building can be modified, but minimum requirements include a 40' x 40' area for two truck bays (so apparatus selection is critical) and a minimum training area of 20' x 40'. These requirements are set out by the FUS and by the BC Office of the Fire Commissioner. A mezzanine area is ideal for storage purposes. Building should be fairly central to the service area.

Occasionally, demonstrator or used pumper trucks appear on the market, but extreme caution is required when considering these. Pumpers are complex pieces of apparatus and are typically purpose-built for another fire department and may have attributes that are not well suited for the proposed purpose – poor gearing for steep terrain, complex operation, obsolete pump with parts acquisition difficulty, to name a few. Models chosen should be easy to operate by any volunteer, day or night and the trend is moving toward diesel engines with automatic transmissions and air brakes.

Used tankers are certainly an option, but it must be remembered that these will be operated by different volunteers, with different levels of experience, at different times (day or night), in different weather conditions. Tanks should be professionally-assessed to comply with the maximum load ranges of the chassis and should be baffled to prevent weight-shift (and loss of control). Brakes should be amply capable of managing the maximum combined weight – as above, the trend is for diesel engines, automatic transmissions and air brakes. Truck should contain cabinetry for storage of hoses, portable (or ideally, built-in) pumps and portable reservoirs. Reservoir should be plumbed for rapid drafting and rapid discharge.

Acquisition of used breathing apparatus, turn-out gear and hoses is not recommended.

Current Recognition Status

Upon SLRD request immediately prior to this Review, the Fire Underwriters Survey issued the recognition report shown on the next page.

The report is fairly self-explanatory. It must be noted that the current DPGs for Bralorne and Seton Valley are at imminent risk of loss because neither department carries the requisite type/age of apparatus, or manpower.



FIRE UNDERWRITERS SURVEY

A SERVICE TO INSURERS AND MUNICIPALITIES

August 9, 2013

Fire Protection Area	Water System	Water Supply Recognized by FUS	Protected Area	Dwelling Protection Grade	Public Fire Protection Classification	Grade Date
Birken		No water system	Unprotected	5	10	2008-01-01
Britannia Beach-Furry Creek	Britannia Beach	Recognized	Hydrant Protected	3A	8	2009-04-16
	Furry Creek	Recognized	Hydrant Protected	3A	8	2009-04-16
			Firehall Protected	4	9	2009-04-16
Garibaldi	Pinecrest Estates	Recognized	Hydrant Protected	3A	9	1988-03-01
	Black Tusk Village	Recognized	Hydrant Protected	3A	9	1988-03-01
			Firehall Protected	4	9	1988-03-01
Bralorne	Bralorne	Not Recognized	Firehall Protected	4	9	2008-02-27
Seton Portage/Shalath	Seton Valley	Recognized	Hydrant Protected	3A	8	1994-09-01
			Firehall Protected	4	9	1994-09-01
Gun Lake*		No water system	Unprotected	5*	10*	*

* No application has been submitted to Fire Underwriters Survey to review the Gun Lake Volunteer Fire Department for fire insurance grading purposes



Fire Underwriters Survey
A SERVICE TO INSURERS AND MUNICIPALITIES

3999 Henning Drive
Suite 101
Burnaby, British Columbia
V5C 6P9

T: 604.609.4146
Toll Free: 1.800.665.5661
F: 604.688.6986

A Service provided by
Opta Information Intelligence
www.fireunderwriters.ca
www.optaintel.ca

Taxation for the Service

At present, all services except Gun Lake derive funds from the taxation of land and improvements within the service area – the most common form of taxation for regional fire departments. Alternatively, Gun Lake's service is funded by a parcel tax levied against properties around the lake. It is understood that the parcel tax is approximately \$15 per parcel (no parcel tax bylaw was reviewed, only an amendment bylaw)

Britannia Beach and Garibaldi residential tax rates are currently \$0.51 and \$0.80 per \$1,000 of assessed values respectively. In comparison with many rural fire services, these are very reasonable and allow for moderate increases to allow for apparatus acquisition and overall growth.

Seton Valley and Bralorne tax rates vary considerably with \$0.62 and \$1.57 respectively. Both areas have diminishing populations and residential assessment values, making substantial increases difficult to implement. Depending on the Board's future direction with these ailing services, consideration could be given to adding a parcel tax to recover taxation from vacant parcels and it can be argued that vacant properties contribute to the risk of fire and benefit from a fire department response.

Birken's service currently carries a \$0.53 residential tax rate, which for a small, remote service is quite low; however, the amount collected is inadequate for operations. The SLRD may wish to consider 1) an increase in the tax rate, 2) implementation of a parcel tax and 3) inclusion of more properties into the service area to give the department a reasonable opportunity to survive and hopefully, attain FUS recognition and conversion to an SLRD-operated service.

Depending on the possible wishes of Gun Lake property owners, a recognized, structural fire department will require a major effort including 1) increasing the current parcel tax, 2) adding an assessment-based tax and 3) combining efforts with Bralorne for a new, expanded fire service area with sufficient capital and operating funds.

For reference, is not unusual for residential tax rates in excess of \$2.00 per \$1,000 of assessed values to be required for a rural fire service. It is always hoped that following initial capital acquisitions and with gradually increasing assessed values, the tax rate will drop. In almost all cases, the tax contribution to a recognized fire service is comfortably offset by the reduction in home and business insurance premiums.

Other Sources of Revenue

There are very few that should be relied upon for fire services.

The Board, subject to supporting Policy, may direct funds from its portion of the Community Works Fund for specific capital infrastructure items, such as fire halls (eg. Garibaldi Firehall).

From time to time, the Province offers infrastructure grants under its Strategic Priorities Grant program. Again, if successful, funds are limited to those of capital, infrastructure costs.

Occasionally, fire departments are asked by the Ministry of Forests to assist with suppression of wildfires. Great care must be exercised to avoid leaving the suppression area unprotected and leaving without formal SLRD authority and Policy in place. In exchange for assistance, the Ministry compensates fire departments at scheduled, non-negotiable rates (for example, apparatus and manpower was paid at a flat rate of \$450/hr during 2013) which is payable on invoice, containing the fire reference number and hours deployed. As regional district fire departments carry no financial authority, invoices should be issued by the regional district and funds placed into the respective operating (or capital reserve) budgets.

On rare occasions, fire departments are asked by the Office of the Fire Commissioner (OFC), during a State of Local Emergency, to leave their areas to assist a neighboring jurisdiction. As above, there is no requirement to respond and great care must be taken to maintain fire protection in the parent service area if response is considered. The OFC carries a payment schedule for manpower, equipment and apparatus.

Washing down parking lots, flooding ice rinks and overseeing the burning of large slash piles is dissuaded for rural departments because apparatus is tied up at these scenes in the event of an emergency call, delaying a response.

From time to time, fire departments are asked to oversee the burning of an old structure for a fee and to “get some practice”. Fire departments should never engage in this practice unless a qualified trainer is in attendance, a pre-ignition plan has been established and arrangements for un-interrupted fire protection of the service area have been made. Again, funds should be invoiced by the regional district.

Recruitment and Retention Initiatives

It is becoming progressively difficult to recruit and retain firefighters for rural volunteer fire departments because there is generally declining interest in volunteerism and because the composition of rural populations changes continuously. Further, there is a limited amount of time and energy that can be offered by existing volunteer members in recruitment initiatives.

One of the more successful methods is introduction of both on-duty and 24-hour general insurance coverage for all rostered volunteers. Most local government fire departments offer on-duty insurance, but in areas where many members are self-employed, the addition of 24-hour coverage is very attractive. Further, family members can be added to the 24-hour policy, but at the member's expense for additional premium costs. There are several firms that offer this service and prices are competitive. At present, Britannia Beach offers its members both, and the SLRD may wish to consider providing both to Garibaldi through the annual operating budgets.

Honorariums are intended to compensate volunteers for out-of-pocket expenses to attend practices and to respond to fire calls. Typically, honorariums vary from an annual gift to monetary compensation and are not necessarily aligned to duties, qualifications or position. The SLRD might consider a standardized honorarium structure for its two “compliant” services at Britannia Beach and Garibaldi that recognizes attendances, rank, progressive qualification and so on and also serves as an incentive for recruitment. At

present, many members in Britannia Beach and Garibaldi simply donate their respective honorariums to the society for various purposes including tool and equipment purchase as well as team-building initiatives – while honorable and generous, this is inconsistent with sustained local government budgeting, as discussed. The introduction of an honorarium structure at the other, society-operated service locations is considered inappropriate and premature because the SLRD has no operating responsibility.

The use of modern equipment and facilities is often an attraction to possible recruits. The SLRD and its established departments may wish to consider the use of Smart Phones for operational purposes. Correctly configured, these can act as pagers, communications devices, location transmitters and GPS locating devices.

While a minor undertaking for the SLRD, it would be appropriate for the Board to express its appreciation and gratitude to volunteer firefighters at every possible opportunity, attend open-houses, participate in the formal recognition of firefighters and so on. One of the commonest reasons for loss of interest is loss of recognition.

RECOMMENDATIONS SQUAMISH-LILLOOET REGIONAL DISTRICT

Priority	Comment
1	Decline to establish any fire protection service areas where a fire service cannot immediately achieve and maintain a 3B or improved Dwelling Protection Grade. Formalize with Board Policy.
1	Decline to establish society-operated fire services within SLRD service areas.
1	Explore possible expansion/consolidation of Bralorne, Gold Bridge, Gun Lake areas (subject to identified comments) OR Transfer Bralorne and/or Seton Valley service establishment bylaws to contribution bylaw services and contractually authorize the respective societies to offer the service, with specific service, OH&S and insurance requirements, with liability waivers. OR Require capital and manpower upgrading of Bralorne and/or Seton Valley services to meet <u>existing</u> FUS DPGs and then transfer operational responsibility for the two from society to SLRD. OR Terminate these services.
1	Explore possible Birken area expansion to include D’Arcy and Devine (subject to identified comments) AND Pursue public support for a substantial increase in supporting tax requisition to meet identified safety and insurance requirements and hopefully, a 4 DPG. AND If both initiatives are successful, assess the department’s ability to meet a 3B DPG and if so, transfer the service from a contribution service area to a formal fire service area, under the auspices of the SLRD.

- 1 Cease contributing WorkSafe premiums on behalf of Birken, Seton Valley and Bralorne services if operations are maintained by a society and transfer that responsibility to the societies.
- 1 Develop Interim Operating Agreements with Seton Valley and Bralorne societies, requiring liability insurance and attendance to WorkSafe obligations.
- 1 Develop Contractual Agreements with Gun Lake and Birken, identifying expectations, limitations of SLRD responsibility and requirements for annual financial statements.
- 1 Convert existing Establishment Bylaws to Service Area Bylaws under the Local Government Act or amend same, as appropriate and in doing so, remove any tracts of un-managed and/or inaccessible Crown Land. Also, petition owners of inaccessible private lands for possible exclusion from the service area (but consider the correlating loss of tax requisition)
- 1 Develop Board Policies specific to SLRD Fire Services, such as Levels of Service, participation in other services, extraneous cost recovery, Fire Chief appointment, fire hydrant use, fire hall use, etc.
- 1 Repeal Bylaw 1110 and develop a revised ordinance that reflects Board Policy and corporate objectives. New bylaw would exclude reference to open burning and issuance of Orders, clarify right of entry, clarify roles in evacuations and would continue to apply only to Garibaldi and Britannia Beach, at this time.
- 1 Initiate a Joint Occupational Health and Safety Committee for Britannia Beach and Garibaldi, ideally, in conjunction with the SLRD's Committee. (To be clarified in Step 3)
- 1 Acquire the services of a part-time Fire Service Coordinator with all fire services participating.
- 2 Develop Mutual Aid and other response agreements with adjacent municipalities, where practical.
- 2 Develop or amend an SLRD Fees Bylaw which allows for billing for extraneous services and costs incurred by fire departments.
- 2 Develop a Capital Asset Replacement program within the SLRD's 5-year Financial Plan.
- 2 Generate clear mapping for all services, as well as for dispatch. These should clearly show boundaries, road names and house numbers.

- 3 Develop a Public Information brochure for residents, addressing driveways, house numbering, self-help, etc. and containing a Fire Smart brochure.
- 3 Develop a structured honorarium system for Garibaldi and Britannia Beach.
- 3 If not currently offered, investigate the offering of On-Duty and 24-hour insurance coverage against injury/death/loss of work for all rostered volunteers of Britannia Beach and Garibaldi and permit the inclusion of family members at member cost.
- 3 Consider the use of Smart Phones for operations.
- 3 In conjunction with Britannia Beach and Garibaldi (initially), examine the services of a contractor for routine mechanical maintenance of small equipment.
- 3 Recognize the efforts of volunteers in the fire service as often as possible.

Appendix A

Orthographic Image of Devine and D'Arcy in relation to Birken

