

A G E N D A

SPECIAL MEETING OF COUNCIL TUESDAY, MAY 24, 2011 AT 3:00 PM IN THE CITY HALL COUNCIL CHAMBERS

A. APPROVAL OF AGENDA

1. Call to Order and Adoption of Agenda

B. DELEGATIONS

1. **Dugal Smith & Associates (HC)**

Dugal Smith in attendance to present the final Fire Services Report to Council.

C. OTHER COMPETENT BUSINESS

D. ADJOURNMENT

That the meeting adjourn at pm.

CITY OF PORT ALBERNI
FIRE DEPARTMENT REPORT
MAY 2011

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May 16, 2011

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EXECUTIVE SUMMARY

The following notes summarize the findings and recommendations from a review of the Port Alberni Fire Department conducted from February to April 2011.

Findings

- The City provides an effective and efficient fire service to residents, businesses and industry.
- Port Alberni Fire Department costs are average relative to comparable communities.
- The City has excellent residential and commercial fire insurance ratings (i.e. the best of those we surveyed). This keeps insurance rates as low as possible for residents and businesses.
- Having four firefighters on shift on a continuous 7 x 24 basis serves community needs well.
- A crew of four firefighters complies with WorkSafe BC requirements for entering burning buildings as well as National Fire Prevention Association (NFPA) standards and the City's own bylaw regarding compliance with NFPA standards.
- With a crew of four firefighters, the Fire Department is able to enter burning structures both to locate victims and to attack the fire at its source.
- The City needs to have a Deputy Fire Chief to manage the Fire Department effectively. The Deputy Fire Chief also shares the 6,700 hours of Fire Officer on call time throughout the year.
- The Fire Prevention Officer is an essential position to ensure public use buildings are safe and owners meet fire code requirements.
- With the stock of old multi-unit buildings and lower income tenants, the Fire Prevention Officer performs a vital function of inspecting and re-inspecting buildings until they are safe and Fire Code compliant.
- Industry members are extremely supportive of the Fire Department and its services and service response levels.
- Mill operators in the City have given up their own fire crews and now depend heavily on the City for fire protection and confined space and high angle rescue.

- The three forest products mills in the City have above average fire risks because of their storage and processing of wood/fibre products. The mill managers feel that fire services are a vital resource in the City and they would be very concerned if service levels were reduced.
- The mills in the City depend on each other economically. If a mill experienced a major fire, managers advised that it would not likely be rebuilt. Such an incident would put severe economic pressure on the other mills. Accordingly, because the risk of a major fire is higher than average (because of the handling of wood products) and the consequences of losing a mill are severe, it is important to note the mill managers' support for the City's fire service.
- Community members are also very satisfied with the Fire Department responsiveness.
- Fire services are highly regulated because they involve danger to firefighters and to community members. Thus, great care is needed in making any changes that reduce capacity or service levels.
- In the event of a long-term catastrophe in the City's financial health, it would be possible to reduce the shift crew to three on duty firefighters. On this basis, the City would require sixteen firefighters (i.e. four on each of four crews would allow three firefighters on duty with one firefighter per crew being away for vacations, holidays, leave, etc.)
- With three firefighters, the crew could perform all other functions but entry into structure fires.
- The savings in moving to three firefighters would be 2.8 FTEs or about \$225,000. On the other hand, firefighter overtime and other costs would likely increase and offset some of these savings.
- If Council decides to reduce the number of career firefighters, it must discuss this plan with a wide range of community stakeholders in order to understand the impacts of such action on risks, service levels, emergency back up operations, firefighter engagement and fire service contracts.
- The Port Alberni Fire Department is a good neighbour to nearby communities and provides fire service leadership within the Alberni Valley and the Alberni Clayoquot Regional District.

Recommendations

Our recommendations for the City are presented below:

1. The Fire Department should accelerate the preparation of pre-fire plans for key public use buildings in the community.
2. The Fire Department should provide more detailed reporting to Council regarding service performance, inspections, fire losses and incident levels.
3. Fire bylaws need to be updated along with reviewing related fees and fines. Consideration should be given to fining owners with excessive false alarms and charging ICBC or its customers for highway rescue calls.
4. The Fire Department's Standard Operating Guidelines (SOG) need to be updated to reflect minor changes in operating procedures.
5. Entering into automatic aid agreements is a significant step. We suggest this be done on a trial basis for six to twelve months.
6. The City should approve an administrative assistant position for the Fire Department. Part of the costs of this position will likely be recovered by selling records management and administrative support services to nearby volunteer fire departments.

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GENERAL DESCRIPTION OF PORT ALBERNI'S FIRE DEPARTMENT

The following notes describe the current size, operations, staffing and features of the Port Alberni Fire Department.

- The Department has two management staff, the Fire Chief, Deputy Fire Chief, a Fire Prevention Officer and 20 firefighters.
- The Department has four crews of five firefighters who operate on a 7 day/24 hour basis.
- To staff one full time firefighter position on a 7 x 24 hour basis, five firefighters are required. This is a standard staffing ratio across many industries and occupations. After allowing for vacations, holidays, sick time and other leaves, a crew of twenty firefighters means that four firefighters are continuously on duty.
- At present, two City firefighters are seasonal and thus the Department has 18.8 full time equivalent (FTE) firefighters plus the Fire Prevention Officer. This is tight staffing for a crew of four 7 x 24 continuous operations (Exhibit 1).
- The Fire Prevention Officer works regular hours Monday to Friday and fills in when a day shift fire/rescue crew is short staffed.
- In 2010, the Port Alberni Fire Department responded to 1,197 incidents (Exhibit 2). Key responses are as follows:

– Structure fires	38
– Fire related calls including false alarms	390
– First responder emergencies	573
– Highway rescue outside of the City	42
– Hazardous material spills or leaks	39
– Other assistance	115
- The Department has a policy of only responding to serious/life threatening emergency medical calls (i.e. at the "Delta" and "Echo" levels).
- With a crew of career firefighters, response times in the City are low at 6 minutes or less from when the call first comes in to the 911 dispatcher. Fast response times result in low fire losses in the City, which were \$403,000 in 2010 (Appendix A).
- Firefighter response times are average to below average compared to career fire departments and well below communities with volunteer fire crews. The

City's response times meet and frequently exceed NFPA standards (i.e. 6 minutes or less response time including dispatch time, 90% of the time).

- Port Alberni firefighters are dispatched by the North Island Fire Dispatch Centre based in Campbell River.
- The Department has 6 fire/rescue apparatus plus the use of a shared fire boat (Exhibit 3).
- Contract fire/rescue services are provided to two First Nations communities, a small nearby residential community (i.e. Franklin River Road) and a nearby sawmill (Exhibit 4).
- The Department has mutual aid agreements with the three adjacent volunteer fire departments for Sproat Lake, Beaver Creek and Cherry Creek (Exhibit 4).
- The Department is currently providing contract firefighter training to volunteers in Ucluelet on a bi-weekly basis.

DETAILED DESCRIPTION OF WHAT THE FIRE DEPARTMENT DOES

This section describes the multitude of roles and functions that the Department delivers. These roles are grouped into five areas, namely:

1. Emergency services for residents, businesses and industry in the City
2. Non emergency services for residents and businesses in the City
3. Support and administrative services provided to the City
4. Services which are internal to the Fire Department
5. Services provided outside the City

1. Emergency Services for Residents and Businesses in the City

The Port Alberni Fire Department provides the following community based emergency services:

- Responses to structure fires
- Response to fire alarms (i.e. real and false alarms)
- Responses to brush, garbage and dumpster fires
- High angle rescue, confined space rescue and response to hazardous material spills and leaks
- Emergency medical responses to life threatening situations (Delta and Echo level calls)

- Response to vehicle crashes and extrication of victims when required
- Response to calls for assistance from other emergency agencies (e.g. BC Ambulance Service, RCMP, Search and Rescue, Coast Guard, Provincial Emergency Program)
- Response to marine/port fires and rescues
- Deployment of the tsunami warning system in tsunami and other major emergency situations

A summary of fire service responses by type for the past six years is presented in Exhibit 2.

2. Non Emergency Services for Residents and Businesses in the City

The Port Alberni Fire Department provides the following non-emergency community services:

- Conducting regular fire inspections of public and multi-use buildings
- Solid fuel stove and fireplace inspections
- Developing pre-fire plans for multifamily, residential care, public use, commercial and industrial structures
- Identifying hazardous materials stored and used in the community
- Providing rescue back up services to employers with staff working in confined spaces and in high angle situations (e.g. repairing conveyor systems) (Exhibit 5)
- Educating the public regarding fire and related emergency services (e.g. schools, care homes, industrial organizations)
- Issuing burning permits
- Enforcing fire bylaws
- Issuing citations and fines for fire bylaw infractions (Exhibit 5)
- Carrying out walk throughs of major buildings to familiarize fire crews with key site features
- Delivering fire service training in partnership with North Island College

3. Support and Administrative Services Provided to the City

The Port Alberni Fire Department provides the following services to the City:

- Providing confined space rescue support to the City staff (e.g. staff working in a pumping station) (WSBC requirement)
- Responding to hazardous chemical/chlorine incidents at City facilities (water purification, pool, rink)
- Monitoring City staff who are working alone after hours (WSBC requirement)
- Taking after hours emergency calls relating to other City services (e.g. broken water line) and calling out City staff as necessary

- Participating in the development and delivery of emergency response plans and programs in the City
- Testing and maintaining the Tsunami warning/signal communications system (weekly)
- Reviewing subdivision and major development plans to confirm fire crew access, improve confined space safety and ensure compliance with Provincial fire regulations and City fire bylaws
- Monitoring major construction projects to ensure compliance with fire safety regulations
- Assisting other City departments as requested (e.g. using a fire engine to clean reservoirs or a ladder truck to install and service communications equipment located on towers)
- Supporting City sponsored celebrations and events

4. Services Which Are Internal to the Fire Department

The Port Alberni Fire Department carries out the following administrative and technical work to support its operations. Many of these activities are mandated by either WorkSafe BC, BC's Office of the Fire Commissioner or the Federal Government.

- Testing SCBA air bottles
- Testing the SCBA compressor
- Testing ropes, hoses and ladders
- Testing radio and other communications systems
- Having fire apparatus/vehicles certified for mechanical safety
- Identifying lessons learned from major incidents in the community (e.g. fire, rescue, hazardous materials)
- Testing fire engines and the fire boat
- Daily fire/rescue/emergency medical training
- Maintaining records, logs, training histories and other critical records
- Maintaining the fire hall and grounds

5. Services Provided Outside the City

The Port Alberni Fire Department provides the following services outside the City to nearby communities and individuals:

- Fire/rescue services along Highway 4 on each side of the City
- Rescue services include extrication of victims from vehicle crashes and lifting crash victims to ambulances from embankments, ravines and gulleys
- Delivery of fire/rescue services to two local First Nations communities
- Provision of fire/rescue services to Coulson Manufacturing outside the City under a service contract

- Mutual aid to Sproat Lake, Beaver Creek and Cherry Creek Fire Departments
- Fire/rescue training assistance to the Beaver Creek and Sproat Lake Fire Departments
- Fire/rescue training to the Ucluelet Fire/Rescue Department
- Filling and checking self-contained breathing apparatus (SCBA) air bottles for nearby fire departments
- Providing technical support to ACRD on fire related issues
- Initial attack for wildfire incidents adjacent to local highways (as requested by Ministry of Forests)
- Conducting fire investigations for the BC Office of Fire Commissioner

FIRE DEPARTMENT REVIEW FINDINGS

This section of the report presents our findings relating to the operations and administration of the Port Alberni Fire Department.

General Findings

We commend the City for the outstanding operations and service quality of its Fire Department. This evaluation is substantiated by the favourable Fire Underwriter's insurance ratings that the City has had for some years and by the City's performance relative to fire departments in comparable communities (Exhibit 7 and Appendix A).

If the issue of uncertain tax revenues is set aside, the size of the Department and the use of career staff makes the Fire Department ideally suited for the community.

In several ways, the City of Port Alberni is unique and the Fire Department is structured to address the service needs that come with this uniqueness. Examples of the City's uniqueness that the Fire Department serves are as follows:

Unique Features of the City	Fire Department Response
Port city	Access to a well designed fire boat and excellent working relations with the Port Authority
A well travelled highway with high seasonal traffic	Delivery of in City and out of City vehicle crash/victim extrication services
Large forest product mills	Close relations and fire/rescue planning with local mills and their management

Unique Features of the City	Fire Department Response
No large urban centre nearby to provide career based fire service support	On shift staffing to meet most incident needs; off duty staff carry pagers; good working relations with nearby fire departments; and involvement in regional emergency planning and response
A number of high risk buildings and structures	A proactive fire inspection/compliance program with a full time Fire Prevention Officer
A highly developed community infrastructure (hospital, schools, care homes and recreation facilities)	Crew staffing, apparatus and pre-fire planning to address critical fire/rescue community needs
Aging population	Excellent medical emergency training and response times
Social economic challenged population	Initiatives to improve resident safety, say, through fire prevention perseverance; annual smoke alarm campaign targeting higher risk neighbourhoods
Potential for tsunami events	Operation of the tsunami warning system

Staffing

Fire Department staffing of 18.8 members is very tight in order to have four firefighters on duty on a 7 x 24 basis for incident response. Tight staffing also reduces the number of off duty firefighters who are available to respond to page outs. We will address the issue of duty crew size and potential for using volunteer firefighters in a following section of this report.

Firefighter Hours

Firefighters in Port Alberni work an average of 42 hours per week and 2,184 hours per year.

Standard hours for all firefighters in 2010 were 45,204 hours. Using standard hours as a benchmark, the Department had the following firefighter statistics:

Factor	Total Firefighter Hours	% of Standard Hours	Comments
Overtime	1600 hrs.	3.5%	<ul style="list-style-type: none"> • Low overtime hours • Overtime hours are equivalent to .7 FTE • Overtime averages 85 hours per firefighter. This is very low compared to other career fire departments (Appendix A) • Overtime pay is 5% of base pay (Appendix A)
Sick leave	1881.5 hrs.	4.2%	<ul style="list-style-type: none"> • Average sick leave of 100 hours per year per firefighter
WorkSafe BC paid leave	221.25 hrs.	0.49%	<ul style="list-style-type: none"> • Low compensable time (i.e. about 12 hours per firefighter)
Leave of absence without pay	708 hrs.	1.6%	<ul style="list-style-type: none"> • Low unpaid leave of about 38 hours per year per firefighter
Working statutory holidays	1200 hrs.	2.7%	<ul style="list-style-type: none"> • Equivalent to 0.6 FTE

Incident Response Times

Incident response times are the single best indicator of fire department effectiveness. Because structure fires grow exponentially, early arrival and intervention are critical in reducing loss of life and limited property losses caused by fire.

Incident response times are excellent in Port Alberni and meet NFPA standards of 6 minutes from the time the call is first logged to arrival at the scene, at least 90% of the time.

North Island Fire Dispatch Centre records for the City are not accurate for incident response times before 2010. This is because times for responding to callers and dispatching City fire crews were not properly incorporated in response time records (i.e. this is not a City issue). Thus, our analysis focussed on 2010 statistics.

Response times for highway rescue outside the City appear good as well. Responses to Coulson Manufacturing outside the City are running at just over 8 minutes, which is excellent considering the distance, road conditions and terrain.

Fire Prevention

The Department conducts over 750 inspections annually. Approximately 38% of these are carried out by a firefighter crew.

Fire prevention is an important Department function. The City has a number of high-risk buildings and multi-unit accommodations. The Fire Prevention Officer must visit some buildings several times in order to get owners to comply with Provincial fire regulations and to ensure ongoing compliance.

Labour Relations

The City and the Port Alberni Professional Fire Fighter Association (PAPFFA) have been without a new contract since January 1, 2007 and have just reached agreement on a new collective agreement.

The intermittent and protracted negotiations has been difficult for both parties. Management/staff relations are very good considering the circumstances. The absence of a new contract appears to have had no impact on Fire Department performance.

Crew Flexibility

With four firefighters on duty continuously, the Department has good flexibility in responding to all types of calls. There is a fairly high level of calls triggered by fire alarms and these require that a full crew attend in case there is a real fire.

First Responder Staffing

The Fire Department's policy is to give priority response to fire calls over medical incidents. In the event a fire call occurs during a medical incident, all available resources are diverted to the fire scene.

Medical emergency/first responder calls comprise almost 50% of the Port Alberni Fire Department's call volume. This is somewhat below average for career fire departments in the Province. At present, three firefighters respond to these calls with the fourth crew member remaining at the hall.

The Fire Chief is considering changing the staffing on emergency medical calls to two firefighters with two remaining in the hall in case a further call comes in. This proposed staffing model makes sense and effectively doubles the Department's response capacity for medical emergencies.

This staffing plan should have no detrimental effects when responding to simultaneous calls and could provide some advantages (i.e. the two firefighters

responding to a second fire incident call drive the fire engine to the scene and could also bring the tanker if required). With two firefighters on board, the second firefighter can review the fire plan and the computer aided dispatch material.

Industry Relations

We met with five industry representatives during this review. We also met with two Port Authority managers. They all stated that the fire service is vital to their operations and is the most valued service they receive from the City.

Not only do they value the fire services, but in some cases, they also are looking for additional services on a contract basis for:

- Training their employees as initial attack crews
- Providing initial haz mat services
- Utilizing fire prevention/inspection skills of the Department

There has also been inquiries about extending fire protection outside the City (e.g. China Creek Marina and Campground; Cameron Shops)

Technology

The Department is continuing to improve its technology as budgets allow. The fire trucks have on board computers that allow firefighters to review pre-fire plans on the way to an incident. The pre-fire plans provide vital information about particular features of a structure such as construction, location of electrical and gas lines and shut offs and history of prior incidents.

The Department pagers are nine years old and need to be replaced to ensure call out reliability. Pagers are scheduled to be replaced in 2014.

Pre-Fire Plans

The Department is building its bank of pre-fire plans. At present, there are 25 plans with a target of 500 plans in order to achieve full coverage. Fire plans are available through the on board computer in the fire trucks.

Expense Control

The Department appears to exercise tight budget control. For example, it has a low rate of overtime, which is remarkable since overall firefighter staffing is below standard at 18.8 FTEs. For 2010, firefighter overtime pay was 5% of base payroll. This compares to an average of 10% for the other fire departments we surveyed.

The Department is operating with 18.8 FTEs which is below the level needed to staff for crews of four firefighters. The shortfall for staffing crews with four firefighters is made up several ways:

- Call out of an off duty firefighter
- Fill in by the Fire Prevention Officer
- Fill in by the Chief or Deputy Chief
- Firefighters working statutory holidays and getting paid out. (This is equivalent to a 0.6 FTE)

As noted in Exhibit 1, even with crews of five firefighters, shifts are short staffed about 7% of the time or about 50 shifts per year. There are five firefighters on shift 12% of the time.

Normally, a fire department the size of Port Alberni has an administrative support worker. Currently, this work (word processing, handling public inquiries, filing, recordkeeping, processing fees and charges) is provided by the Chief Officers with some assistance from on duty firefighters.

There appears to be potential to provide record management services to nearby fire departments and thereby recover some of the costs of an administrative support clerk.

Apparatus and Vehicles

The Department is well equipped with:

- Three fire trucks
- A ladder truck
- A rescue truck
- A reconditioned tanker truck

Details of fire/rescue apparatus are provided in Exhibit 3. The Department does very little firefighting out of range of the City's hydrant system. Accordingly, the Department is able to get by with a 33 year old City water truck that has been adapted to fire use. This truck is scheduled to be replaced in 2015.

Vehicle Maintenance

The Department has three levels of vehicle maintenance, namely:

- An in-house firefighter/mechanic
- The City's mechanical department
- Major repairs by external service providers

The in-house mechanic works as a firefighter and receives a 9% premium for his added skills. The Department benefits from having an in-house mechanic.

Dispatch

There are three dispatch "chains" for the Fire Department:

- Fire and general emergency calls through the North Island 911 Centre
- Medical calls from North Island to BCAS in Victoria where BCAS codes the call and determines if firefighters will be called out. If so, the call is routed to the Campbell River Fire Dispatch Centre where dispatchers determine if the call falls within the criteria for PAFD response. (Under Port Alberni's policies, firefighters only go to the most serious/life threatening calls which are coded as Delta and Echo incidents).
- Marine emergency calls that are directed to Comox and the Coast Guard and, if appropriate, to Port Alberni

The North Island Fire Dispatch Centre in Campbell River appears to be working well. Dispatch services are contracted by the Regional District. The City's dispatch cost is \$102,450 per year and includes services to the RCMP.

Communications

The Department has a fully functional dispatch system in the fire hall. It also maintains and operates the City's tsunami warning system.

The Department's radio system works well and all on duty crews carry radios and a cell phone on duty. Off duty firefighters carry pagers in the event of call outs to major events.

Mutual Aid

The City has mutual aid agreements with the Regional District and Cherry Creek Water District for the three nearby volunteer fire departments. There are few mutual aid calls to and from the City. In 2010, the Cherry Creek Fire Department provided four mutual aid responses to the City (Exhibit 7).

The Port Alberni Fire Chief is working with the Sproat Lake and Beaver Creek Fire Departments to develop an automatic aid agreement. With automatic aid, City fire trucks will roll immediately compared to those staffed by volunteers. This means that, in some cases, the City could become the initial responder to out of area structure fires in these communities. Automatic aid will also result in nearby volunteer firefighters responding to incidents in the City in support of the City's firefighters.

Before finalizing this agreement, it is essential to determine what the impacts will be on the City for automatic aid to these volunteer departments. To manage the impacts of automatic aid, the City's Fire Department is developing operating guidelines that will limit the types of calls to which the Department will respond.

Training

Training is a vital part of fire department performance. The Deputy Chief manages the training function and related recordkeeping. Duty Officers (Captains) are responsible for some training delivery and related training record data entry. This function appears to be working well.

Operational Guidelines

The PAFD has "Standard Operational Guidelines" (SOG) which specify policy and required procedures for dealing with issues relating to:

- Safety
- Training
- Operations
- Interaction with other agencies
- Administration

Worksafe BC requires that SOGs are in place for specific areas of fire department operations.

The City's SOG manual is comprehensive, well written and succinct. However, many of the sections are over ten years old. Accordingly, there are a few policies that do not reflect current procedures. Examples of policies that should be reviewed are outlined below:

Policy #	Subject	Issue
3.26.03.01	Call out of off duty personnel – in the City	Is the reference to the alarm room operator still valid?
3.06.04	Response to medical aid calls	Requires full duty crew to respond
4.09.00	Interagency – call out of Parks and Recreation personnel	Names no longer correct
5.01.19	Administrative Personnel – contact numbers	Names no longer correct
5.01.20	Information Technology Department – call out procedures	Names no longer correct

A full review of the SOG manual should be carried out in order to ensure it reflects current policies. It would be helpful to date each page in order to ensure all pages are current.

Fire Department Revenues and Expenses

Details of the Fire Department's revenues and expenses for 2010 are presented in Exhibits 8 and 9. The Department's revenues are the second highest in our survey (Appendix A) when Campbell River and its dispatch centre revenues are excluded.

Regional District Support

The Fire Department is a good neighbour with the Alberni Clayoquot Regional District. Examples of support to the Regional District include:

- Providing training assistance to the Ucluelet Fire Department
- Assisting with training the Sproat Lake and Beaver Creek volunteers
- Providing highway rescue, haz mat and first responder services along Highway 4 and on the road to Bamfield under a contract to the Regional District
- Delivering fire and first responder services to two First Nations Bands
- Assisting with regional emergency planning and response

Industry Support

Industry depends on firefighters being available for confined space rescue and high angle rescue.

In fact, employees in the City and in local industry are required to withdraw from work in a confined space if the City's fire crew responds to an emergency call. Both the City and industry supervisors have communication links with the Fire Department when their workers enter confined space areas.

Industry representatives expressed in the strongest possible terms that they see their tax dollars paying for fire service protection. They are very concerned Council may consider a reduction in services and/or service levels. They consider the Fire Department to be an essential service for a number of reasons including:

- They have small fires on a regular basis
- They are working with highly flammable material
- They need to continuously reduce fire risks
- They have needs for initial haz mat response that cannot be met immediately by contractors
- WorkSafe BC requires rescue coverage for workers in confined spaces

- Similarly, WorkSafe BC requires rescue coverage for employees working on cranes and elevated equipment like conveyors

Bylaws

The City's fire bylaws are dated and need to be reviewed along with the levels of fees and fines. For example, the City needs to consider whether building owners should be fined for excessive false alarms. We understand that a fire bylaw review is planned but no resources have been allocated to this work at present.

A particular issue that needs to be addressed is the current commitment in City bylaws to comply with NFPA standards. NFPA standards have increased in scope and complexity over time and it is no longer practical or appropriate for the City to make this commitment. Having the reference to NFPA standards in the bylaw also exposes the City to potential legal risks when fire services and service levels are not compliant as a matter of choice or resulting from an oversight.

More detailed recommendations regarding improving the City's fire service bylaws are provided in the "Fire Strategic Plan: Alberni Valley and Bamfield – 2010" prepared for the Alberni Clayoquot Regional District by Dave Mitchell & Associates Ltd. (i.e. pages 44 to 46)

Concerns

Based on our review and comparisons with other fire departments, we have no major concerns with the Port Alberni Fire Department. There are, however, several minor issues that should be reviewed by the Fire Department/City:

- The Department needs to complete more pre-fire plans
- The move to automatic aid needs to be considered carefully in terms of its effect on Port Alberni response demands. A six to twelve month trial period should be considered before the agreement is finalized
- Fees and fines need to be reviewed and increased where feasible. A fee for excessive false claims, if implemented carefully, could add to revenues and reduce false alarm calls
- Pressures on cutting costs and being more economic may be motivating the Fire Chief and Deputy Fire Chief to seek out contracts and out of City work in order to generate more revenue. Over the long term, this may reduce the time devoted to leading and managing the Department for the City
- Council should abandon the concept of adding volunteers or paid on call firefighters unless it is willing to negotiate with the PAFFA and pay for this

staffing model (i.e. increase Department operating costs)

- Adding volunteers would add to City costs for the following reasons:
 - The City will not be able to negotiate to replace career firefighters with volunteers.
 - Accordingly, volunteers will only be added to the Fire Department
 - Adding volunteers will increase costs for training, turnout gear, equipment, radios and gratuity pay

- Volunteer firefighters bring challenges of their own, which are evident from our discussions with survey participants with composite staffing models, namely:
 - Difficulty in recruiting volunteers
 - Trouble in retaining volunteers
 - Lengthy time to train volunteers
 - Poor response to incident call outs (i.e. too few responses)
 - Delays in arriving at the incident scene

The economy, the pace of life, employment constraints and competing family demands make it difficult to operate a composite/ volunteer fire department in a community such as Port Alberni. Several of the Fire Chiefs in our survey with composite (career and volunteer) staffing indicated how difficult it was to operate effectively with this model.

Accordingly, the City should promote the value of having a good fire department particularly to its older residents and to families and businesses considering moving to Port Alberni.

SURVEY FINDINGS

In the course of this review, we surveyed seven fire departments in BC in similar size communities, namely: Campbell River; Cranbrook, Esquimalt; Fort St John; Nelson; Powell River and Squamish.

Appendix A summarizes the survey data and presents an analysis of key performance ratios. The key findings for this survey are as follows:

The Port Alberni Fire Department is the best of the survey group in the following areas:

Best in the Survey Group		
Factor	Port Alberni	Survey Group
2010 fire losses per 100,000 of assessed value (PA is even)	\$32	\$210
Fire Underwriter ratings – sum of residential (1 to 5) and commercial (1 to 10) ratings	5 (tied with Campbell River)	8.0

Port Alberni is above average in the following ways:

Above Average Performance in the Survey Group		
Factor	Port Alberni	Survey Group
Career firefighters per 1,000 residents (PA is higher)	1.2	0.9
Firefighter overtime (PA is lower)	5%	8.7%
Fire service cost per incident (PA is lower)	\$1,920	\$2,774
Fire service cost per hour (PA is lower)	\$263	\$293

The City's Fire Department is average with respect to the following factors:

Average Performance in the Survey Group		
Factor	Port Alberni	Survey Group
Emergency medical services (EMS) as a percent of total incidents	48%	47%
Fire Department cost per capita	\$128	\$129

The Fire Department is marginally below average with respect to several factors:

Below Average Performance in the Survey Group		
Factor	Port Alberni	Survey Group
Fire Department cost as a percentage of the City's costs (PA is higher)	10.1%	9.7%
Cost of the Fire Department per \$100,000 of assessed value (PA is higher)	\$115	\$102
Structure fires per 1,000 residents (PA is higher)	2.1	1.6
Total incidents per 1,000 residents (PA is higher)	67	60

In summary, the City is performing at an above average level (e.g. costs per incident, fire losses, Fire Underwriter ratings and firefighter overtime) at costs that are average (e.g. percentage of the City's costs and Fire Department costs per capita). Key comparisons are summarized in Exhibit 10 and in Section 3 of Appendix A.

WHAT IS THE CORRECT LEVEL OF STAFFING FOR THE PORT ALBERNI FIRE DEPARTMENT?

A key issue in this review is determining what is the correct level of staffing for the Port Alberni Fire Department. This is a complex question since there is a wide range of factors that affect the decision of how to staff a Fire Department such as:

- The range of fire/rescue services to which the Fire Department is mandated to respond
- Staffing standards set by the Fire Underwriters for fire insurance rating purposes
- Staffing requirements mandated by WorkSafe BC for structure fire incident responses
- National Fire Prevention Association (NFPA) standards for structure fire responses
- The manning logistics needed to operate a fire department and deal with diverse and sometimes simultaneous response on a 7 x 24 hour basis
- The degree to which trained firefighter resources are available and responsive from neighbouring fire departments
- City bylaws

With a crew of four career firefighters on a 7 x 24 basis, the City has an ideal staff compliment for its needs. This staffing is ideal because of the following factors:

- There is 7 x 24 continuous fire/rescue coverage
- A crew of four allows firefighters to enter a burning structure where SCBA equipment is required. Exhibit 11 summarizes firefighter staffing guidelines and constraints.
- The crew can respond to serious medical emergencies, vehicle crashes and highway rescue incidents with a crew of three with one firefighter

remaining to call out additional firefighters if another incident occurs simultaneously

- There is capacity to deal with the 1200 or so incidents that occur in the community each year
- All Port Alberni firefighters are training equally in all work functions and services provided by the City
- Off duty firefighters are available in the event of major emergencies.
- The responding crews have excellent response times based on the NFPA standard of 6 minutes for 90% of the incidents
- If the on duty crew size of four career firefighters is reduced to three, the City will not be complying with the NFPA 1710 standard, which is required by the City's fire bylaw
- If the City relies on calling out an off duty firefighter to make up the fourth crew member then the response time for a full four person crew will extend, say, from 5 to 15 minutes
- A delay in the response time to a structure fire is significant. With a career firefighter crew of four and, say, a six minute response time, it is more likely that the structure will be saved and that the fire damage will be relatively small
- When three firefighters arrive, there is a delayed entry until the fourth firefighter arrives in, say, 10 minutes. By that time, conditions may prevent entry into the building. The crew's job then changes from searching for victims and conducting an interior attack to an exterior attack and preventing the fire from spreading to nearby buildings
- Moving to dependence on volunteer firefighters also has significant impacts on fire/rescue service levels. The impacts of using a greater proportion of volunteer firefighters is as follows. First, to ensure at least one volunteer firefighter responds to a call out, a number of volunteers are needed (e.g. three volunteers to get one out). The ratio is even higher in some communities in order to get sufficient volunteers out during normal working hours

Second, there is no way volunteers are able to address the volume of calls that are occurring in Port Alberni (i.e. over three calls per 24 hour day). All volunteer departments usually find it challenging when the call volume

goes above 200 per year. This is because there are already requirements for three or so hours of weekly training, volunteers usually need to be at work and there can be conflicts with family life when volunteer firefighting takes too much time. In larger communities with volunteer firefighters and high call volumes, responses are on a "best efforts" basis

Third, it takes four to five years of training to get volunteer firefighters up to a career firefighter equivalent for Port Alberni firefighters. Training for volunteers to function at a Port Alberni career firefighter level would include:

- Basic firefighting
- Operating fire engine equipment
- Driving fire engines
- Emergency medical certification

It is likely that volunteer firefighters would not be able to perform high angle and confined space rescues because of the high and continuous training requirements for these special services. Delivery of basic haz mat services would also likely be problematic for volunteer firefighters, again because of the training and equipment needs

Some fire departments in BC are so stretched to find volunteers that they are allowing recruits to determine what they will do (i.e. "I will drive the truck but won't fight the fire.")

Fourth, turnover of volunteers is high because of career and family demands and the emotional and physical stress of what firefighters do and see (e.g. seeing neighbours and friends in horrific crashes). It may take five or more hires to keep one volunteer after 4 years.

Port Alberni benefits significantly from having four career firefighters on shift on a 7 x 24 basis.

Fire Underwriter's Survey Staffing Requirements

CGI Insurance Business Services conducts the Fire Underwriter's Survey. To achieve a high fire insurance rating for residential structures, a fire department must have capabilities which include:

- Be able to provide a crew of three trained firefighters on a 7 x 24 basis
- Have a fire hall located no more than 5 km from the structures being protected

- Have a grid network of fire hydrants producing a minimum and continuous volume of water

Based on these criteria, Port Alberni has a 1 rating on a 1 to 5 scale for fire protection for residential structures. This is the best rating possible and ensures residential insurance premiums are the lowest possible. Of the six cities we surveyed, only Campbell River has this rating (Appendix A).

There are somewhat different criteria for industrial fire protection ratings. Port Alberni has a 4 rating on a 1 to 10 scale for its industrial/commercial structures. This is a very favourable rating and reduces insurance costs to local businesses and industry. Again, along with Campbell River, this is the best rating among the cities we surveyed (Appendix A).

There is potential for firefighter staffing changes to impact fire insurance ratings and premiums. These issues are discussed in a subsequent section of the report and in Appendix B.

WorkSafe BC Requirements

WorkSafe BC sets stringent safety requirements for all classes of workers including firefighters. WorkSafe BC requires that for initial attack and entry into a structure fire there must be four firefighters. This staffing requirement is based on incidents where firefighters are going to enter a building and will be depending on their self-contained breath apparatus (SCBA).

WorkSafe BC allows two firefighters to enter a burning structure while one firefighter remains outside to operate the engine pump and/or hydrant water supply and a fourth firefighter manages the scene, handles radio communications and coordinates the rescue of firefighters in the building if required.

The two initial attack firefighters are only allowed to be in the building for 10 minutes and by then a Rapid Intervention Team (RIT) is required to be on scene. If the RIT team is delayed, the initial attack firefighters must exit the building. In Port Alberni, the RIT team is comprised of off duty firefighters who are called out to attend the emergency.

National Fire Prevention Association Staffing Standards

The National Fire Prevention Association (NFPA) has set staffing standards for fire suppression work. Their requirement is for four firefighters to be on scene in order for an interior attack to take place. NFPA policy is recognized as the standard for firefighting but is not enforceable under BC or federal laws.

City Bylaws

The Port Alberni City Bylaw #3599 adopted in June 1981 requires that the City comply with NFPA standards. NFPA standards specify a crew of four firefighters for structure fire suppression. Thus, the City is committed to a four person crew of firefighters at this time. The City should modify this bylaw to provide some flexibility in addressing NFPA standards.

Nearby Resources

There are no nearby career fire departments. Volunteer firefighters are available for structure fires but on a delayed arrival basis. As a result, the Port Alberni Fire Department is structured as a self-sufficient operation with staffing, training, vehicles and equipment for most incidents and for high levels of incident severity.

Vehicle/Equipment Related Crewing Requirements

There are no specific apparatus or types of firefighting gear that mandate a certain crew size.

Collective Agreement Staffing Provisions

The Port Alberni collective agreement with firefighters has no language relating to crew size, use of volunteers or mutual aid with nearby communities. The City has obtained a legal opinion that the use of volunteers is precluded by the PAPFFA collective agreement and that such a staffing change would have to be negotiated.

Impacts of Crew Size on Fire Insurance Ratings

Based on our research, moving to a shift crew of three firefighters would not affect the Fire Underwriters "Dwelling Protection Grade" for residential structures or the "Public Fire Protection Classification" for commercial and industrial structures.

The Fire Underwriters Survey evaluates and ranks municipal fire services based on five benchmark areas. Each area has a number of component evaluation factors. The five benchmark areas are:

- Fire risk
- Fire Department resources and capabilities
- Water supply system
- Fire prevention and fire safety bylaws and enforcement systems
- Emergency communications systems

The Fire Underwriters only assesses structure firefighting capacity and capabilities. It ignores all the other fire/rescue services and their resourcing and capabilities (e.g. emergency medical services, high angle rescue, hazardous materials response).

If the Fire Department moved to three firefighters on shift, its capacity for quick entry into a burning structure to check for victims and/or attack the base of the fire would be severely limited. This is because of the delay (estimated at 5 to 15 minutes) to call out an off duty firefighter to assist with the incident and/or waiting (20 to 30 minutes) for a mutual aid response from a neighbouring volunteer fire department.

With three firefighters at the fire scene, the crew's role would be to control the fire from outside the structure and minimize the fire's impact on adjoining buildings.

Summary Staffing Level Findings

Based on our research, the City is currently required by its bylaws to provide four firefighters for structure fire responses.

Moving to a three person crew would likely be seen by the PAPFFA as a safety issue and is covered under Section 11.0 and 12.4 of the PAPFFA collective agreement. The City should expect to negotiate with the PAPFFA if it wishes to reduce the crew size and/or move to a composite staffing structure, using either volunteer or paid on call firefighters.

Exhibit 12 summarizes the staffing options we have considered in this review.

DOES THE FIRE DEPARTMENT NEED A DEPUTY FIRE CHIEF?

Council has asked that we assess the need for the Deputy Fire Chief position. This is a senior position in the Fire Department with compensation including benefit loading of \$100,000. The City has had a Deputy Fire Chief since 1966.

The major benefit of eliminating this position is the savings that would occur (e.g. compensation, vehicle and support costs).

On the other hand, there are significant advantages of having a Deputy Fire Chief position. These benefits are presented below:

- The Deputy Chief provides onsite management when the Chief is away and is available to divide the 6700 annual hours of management on call time in the Department outside normal working hours.

- Being on call means that the Chief or Deputy Chief has to remain in the community on his personal time and be fit for duty and ready to function as the Fire Department leader at any time. With the call volume in Port Alberni, it is physically impossible for a single Chief Officer to be on call continuously for more than a short time.
- It is important for the on duty crew to have access to a Chief Officer because there are frequently decisions with monetary impacts that need to be made. (e.g. Does the crew work overtime? Should off duty firefighters be called in?) At time and one half or double time pay levels, it is not appropriate to leave these decisions to PAPFFA officers who may be overly conservative in their decisions and not call out additional firefighters when that is what is needed.
- Over time and outside normal working hours, there are technical issues and questions that arise. It is important that the on duty crew have access to the Chief or Deputy Chief. As noted above, it is impossible for one person to provide this support over the long term.
- There are a number of management roles that are required in the Fire Department. Planning, development, delivery and follow up on a wide range of firefighter training subjects is required. Managing firefighter training is a management function and is carried out by a Deputy Fire Chief. It is important that this function be lead from outside the PAPFFA because of the issues that can occur between PAPFFA members if, say, one is the trainer and is pushing for better performance and grading the performance of other PAPFFA members.
- Delivery of firefighter training requires significant preparation and follow up. It is extremely valuable for the Department to have two excluded positions to carry out this important function.
- A key element in effective management and delivery of fire services is relations with key community stakeholders. Having a Deputy Chief enables both the Fire Chief and the Deputy to develop and maintain wider and deeper relationships with key local leaders who can help when large scale fire/rescue and other emergency events occur (e.g. schools, hospitals, industry, Port Authority, RCMP, PEP representatives, North Island Fire Dispatch, neighbouring volunteer fire departments). Without the Deputy Fire Chief back up, the Fire Chief would be limited in his relationship building role.
- Periodically, discipline issues may arise with firefighters. It is important to have a Deputy Chief to deal with such issues in order to provide a two-

step process (i.e. Deputy first and if necessary, the Chief).

- The Deputy Chief provides for succession for the Chief if he leaves, retires or is unable to function in his role.

In summary, the Deputy Fire Chief is an essential position in the Department. It shares the off duty on call time and decision making and makes the Fire Chief more effective. The Deputy Chief position also ensures that there is always an excluded manager available to on shift crews to make critical logistic and risk and financial decisions. The Deputy Fire Chief position improves the stewardship of the Fire Department and ensures good relationships between Chief Officers, firefighters, community leaders and emergency response partners.

A summary of the primary roles and functions of the Deputy Fire Chief is provided in Exhibit 13.

DOES THE FIRE DEPARTMENT NEED A FIRE PREVENTION OFFICER?

The City's Fire Prevention Officer (FPO) is an experienced firefighter who works a regular work week dealing with residents and industry to reduce fire incidents and to improve public safety. The FPO holds the rank of a Captain.

There are two questions to address regarding this position, namely:

- Does the City need this position?
- If so, can the fire prevention work be carried out by firefighters when they are available in the Fire Hall?

Based on our research, the FPO position and its roles and functions are an important part of fire services in the City. To support this finding, we have summarized the key roles and functions of the position and then describe why the position is valuable to the City.

FPO Roles and Functions

The primary roles and functions of the Fire Prevention Officer are presented below:

- Inspecting all public, multiple residency (i.e. over four units) and industrial buildings in the City on a regular basis (i.e. semi-annually or annually) to ensure they comply with City and Provincial fire bylaws and regulations.
- Assigning selected fire inspection work to shift crews that they can carry out between incident calls.

- Following up with inspections sometimes weekly, where there has been a compliance problem until the issue is resolved.
- Working with the City By-law Enforcement Officer where there are multiple issues with specific public use buildings and commercial/industrial sites.
- Working with the City's Building Inspector to ensure new and renovated buildings are Fire Code compliant prior to granting occupancy permits.
- Issuing fines and/or orders where the building owner/manager fails to comply with fire safety bylaws and regulations over some time.
- Checking wood stove installations and issuing permits allowing their use.
- Issuing permits for fire related events covered by City bylaws.
- Responding to customer inquiries regarding burning permits, home fire/smoke detectors, oil tank removal and other regulated matters.
- Responding to resident and business enquiries about fire safety practices, equipment (e.g. smoke alarms) and regulations.
- Reviewing major residential, commercial and industrial development plans to identify fire safety issues (e.g. access, materials, confined space areas, high risk features).
- Visiting construction sites to ensure incorporation of fire safety requirements (e.g. fire truck access, door design for ease of entry and exit, location of hydrants).
- Checking new buildings before occupancy to ensure fire safety issues have been addressed.
- Developing and delivering public education and fire prevention programs in the community to reduce the risks of home, school, business, industrial and interface fires.
- Securing sponsors to help fund public education and fire safety programs.
- Acting as an investigator in major fires as a certified agent of the Office of the Provincial Fire Commissioner.
- Providing guidance to the Fire Department on bylaws and bylaw change needs.

- Training firefighters on how to conduct rigorous and fair fire inspections.

Why Fire Inspection Work Cannot all be Delegated to Firefighters

Routine fire inspections can be assigned to firefighter crews on the day shift. However, there are a number of key fire prevention and public education roles that require a specific training and accountability for this work. These factors are described below.

- Fire inspections in large public use, care facility, commercial and industrial buildings requires a comprehensive training and expertise in the Provincial building code and Provincial fire safety and local fire safety regulations.
- There are significant advantages of the same fire inspector monitoring problematic buildings and owners over time and managing the escalation of compliance tools that are available. Port Alberni has a number of old wood frame buildings and structures where continuous monitoring by the Fire Prevention Officer is essential.
- There is significant records management and administrative work required in fire prevention. This work cannot be effectively delegated to crews which rotate through shifts during the week.
- For larger fire inspections, significant report writing is required. Again, this function would likely suffer if crews are "interrupted" by call outs and shift changes and cannot complete the report writing within a week.
- Generally, firefighters use a fire truck and carry turn out gear when doing their scheduled inspections. They are then ready to respond if an incident call comes in. Firefighters are generally assigned inspections where parking a fire engine is an acceptable practice.

The Value of the FPO Position and Work

The work of the Fire Prevention Officer (FPO) provides the following value to the City:

- The FPO provides immediate response to permit, inspection and fire by-law inquiries.
- The FPO issues permits where required by law.
- The FPO carries out repetitive and scheduled fire inspections that are required for high risk structures (care homes, hospital, apartment

buildings, restaurants, hotels, motels, theaters).

- The FPO educates owners and managers of public use, multi family, commercial and industrial buildings regarding fire regulations, bylaws and the enforcement tools that are available to ensure fire safety compliance.
- The FPO identifies serious fire risks in the community and coaches structure owners to correct deficiencies and helps free department staff.
- The FPO works as an education and public relations officer in informing the public about fire prevention and fire safety.
- The FPO prioritizes and supports the preparation of pre-fire plans.
- The FPO is available to fill in as a qualified firefighter or officer in an emergency.

Impacts on the Fire Underwriters Ratings

Fire prevention is a key assessment factor in the Fire Underwriters Survey evaluation used to determine insurance ratings.

It is possible that the elimination of the Fire Prevention Officer, combined with the high-risk buildings in the City, could lead to lower residential and commercial/ industrial insurance ratings. In time, this would increase insurance costs throughout the community in excess of the savings if this role were to be eliminated. For further discussion of this issue, please refer to Appendix B.

The position of Fire Prevention Officer is essential to the City.

RECOMMENDATIONS

We find that the Port Alberni Fire Department operates well with no major issues or problems other than the desire that its costs be lower. There are however, a number of recommendations to improve Fire Department services and performance.

Complete More Pre-Fire Plans

The Department needs to set goals for completing pre-fire plans (e.g. two per week) in order that these documents are available for key structures throughout the City.

Improve Fire Department Performance Reporting

The Fire Department needs to provide more information to the City and Council regarding its services, service levels, incident experience and progress on key initiatives.

Update Fire Bylaws

Fire bylaws are dated and need to be updated. Revisions should include:

- Defining the services that the Fire Department provides
- Moderating the commitment to comply with all NFPA standards
- Authorizing out of City services and the associated conditions of such work
- Reflecting any changes in Provincial and Federal legislature that need to be addressed
- Providing a process to demolish buildings that have become major fire hazards

Review Fees and Fines

The City's fire service fees and fines were set some years ago and should be reviewed to reflect current services costs, training needs and practices in other communities. Bylaws setting fire service fees and fines may also require appropriate enforcement provisions.

Update the Standard Operating Guidelines

Most of the SOG policies are ten or more years old. There are also several areas where current practice is not properly reflected in the SOG policies. The Fire Department should target completion of SOG updates over the next twelve to fifteen months.

Charge for Excessive False Alarms

The City should consider charging owners for excessive false alarms. The Fire Department responds to these calls with full crews and periodically these calls run simultaneously with other more urgent incidents. A charge of \$200 per false alarm after three in the year would seem to be fair. There were 213 alarm responses in 2010 (Exhibit 2).

Charge for Confined Space/High Angle Standby Services

The Fire Department is becoming the standby service for industrial organizations with confined space and/or high angle rescue needs. An annual fee should be

levied for this service because of the communications, training and logistics that such coverage makes necessary. Additional revenue generating opportunities are presented in Exhibit 14.

Charge ICBC for Highway Rescue Services

We recommend that the City charge ICBC or its customers for highway rescue/victim extrication calls. Fees should be significant to reflect firefighter time and equipment resources used in such incidents and the temporary loss of coverage for fire services in the City. (e.g. A charge of \$2,000 per incident seems appropriate. Currently, the City's per incident cost is \$1,921.) Historically, ICBC has denied such charges. However, there are legitimate reasons for the City to seek such compensation for out of area incident responses.

Test Automatic Aid

We recommend that the City test automatic aid with nearby communities over six to twelve months as part of the process for moving to this level of interdepartmental operations.

Improve Succession Planning for the Chief Officer Positions

With an aging managerial workforce in communities throughout BC, there is growing demand for experienced fire service leaders. Accordingly, we recommend that the City develop programs and processes to support Chief Officer succession within the Department and to encourage leadership training among the firefighter group in case one of its own Fire Officers is recruited away.

Back up the Fire Prevention Officer

The Fire Prevention Officer position provides great value to the City and to the community. There should be two or more firefighters who understudy this position and who can fill in for the Fire Prevention Officer when he is on vacation, away for training or needs back up assistance.

Back up the Firefighter Mechanic

Over time, the Fire Department should employ a second firefighter who is qualified as a mechanic. This individual would back up the current firefighter mechanic when he is on vacation and otherwise not available.

Replace Pagers and Portable Radios

The Fire Department's pagers and portable radios are reaching the end of their useful life. They need to be replaced before any reliability issues arise.

Plan for an Administrative Assistant

We recommend that the Fire Department add an administrative assistant position to provide office services, word processing, statistical reporting and records management support and to support contract records management services for other fire departments.

CONCLUSION

We appreciate the outstanding assistance we have received from those we have worked with during this review. Everyone has been extremely supportive of having the best possible/affordable fire department in Port Alberni.

* * * * *

Dugal Smith & Associates
Burnaby, BC
April 2011

INDEX OF EXHIBITS

- Exhibit 1 - Shift Staffing Analysis – 2008 to 2010
- Exhibit 2 - Incident History from 2005 to 2010
- Exhibit 3 - List of Fire Department Apparatus and Vehicles
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- Exhibit 6 - Fire Department Schedule of Fees and Fines
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SHIFT STAFFING ANALYSIS 2008 TO 2010

This exhibit summarizes shift staffing levels over the past three years.

Situation	2008	2009	2010	Average
Three firefighters on shift (short staffed) ¹	53	32	64	50
Percent of shifts ²	7%	4%	9%	7%
Four firefighters on shift (expected staffing)	605	616	562	594
Percentage of shifts	83%	85%	77%	81%
Five firefighters on shift (extra staff)	72	82	104	86
Percentage of shifts	10%	11%	14%	12%

¹ When there are three firefighters, the Fire Prevention Officer fills in, an off duty firefighter is called in or one of the Chief Officers fills in.

² There are 730 shifts per year (i.e. $365 \times 2 = 730$)

INCIDENT HISTORY FROM 2005 TO 2010

This exhibit summarizes the incident history for the Port Alberni Fire Department by incident type. The coding of incidents changed in 2009 from twenty-five to fourteen categories. Accordingly, the comparability of incident levels from 2005 to 2008 to incidents in 2009 and 2010 may be less precise.

	Incident Type	2005	2006	2007	2008	2009	2010	2010 as % of 2005
1.	Structure fire	20	18	24	27	33	38	190%
2.	Chimney fire	11	15	12	21	10	6	55%
3.	Appliance/electrical fire	16	23	12	12	21	14	88%
4.	Smoke investigation	39	42	33	36	27	23	59%
5.	Vehicle/boat fire	14	14	12	8	18	11	79%
6.	Dumpster/refuse fire	20	29	22	13	19	11	55%
7.	Bush/grass/campfire	18	44	13	29	59	44	244%
8.	Burning complaint	92	78	68	85	59	68	74%
9.	Building alarm response	225	251	218	219	216	213	84%
Subtotal – Fire Related		454	524	413	450	462	428	94%
10.	Medical first responder	452	574	532	547	533	573	127%
11.	Assistance	58	51	24	35	27	39	67%
12.	Rescue in City	11	17	20	32	66	76	691%
13.	Rescue out of City	132	126	124	99	49	42	32%
14.	Haz mat/spills/leaks	32	35	26	30	25	39	122%
Total		1140	1307	1140	1193	1162	1197	105%

FIRE DEPARTMENT APPARATUS AND VEHICLES

This exhibit summarizes the key firefighting and emergency response vehicles in the Port Alberni fleet.

Fire Apparatus	
Engine 1	1990 Triple Combination Engine, Anderson Engineering 1997
Ladder 2	Quint Aerial Ladder, E-One
Engine 4	2000 Triple Combination Engine, Freightliner
Engine 5	2010 Triple Combination Engine, Fort Garry
Tender 12	1978 Tender / Tanker (to be replaced in 2014)
Vessel	
Harbor Chieftain	Fire patrol vessel shared with the Port Alberni Port Authority
Light Trucks	
Rescue 17	Rescue Vehicle (currently being replaced with a new used light rescue vehicle)
Command 19	1997 Ford Pickup (Fire Chief) (being replaced in 2011)
Command 15	1998 Dodge Pickup (Deputy Fire Chief) (to be replaced in 2013)
Command 10	Dodge Pickup (Fire Prevention Officer)

FIRE DEPARTMENT CONTRACTS

This exhibit lists the contracts and agreements that the Port Alberni Fire Department has with other organizations.

Organization	Nature of Agreement	Revenues/Fees	Date of Agreement
Ucluelet Fire Department	Training of volunteer firefighters	\$350 per session plus expenses	2010
Sproat Lake Fire Department/Alberni-Clayoquot Regional District	Mutual aid agreement	Not applicable	2010
Beaver Creek Fire Department/Alberni-Clayoquot Regional District	Mutual aid agreement	Not applicable	2010
Sproat Lake and Beaver Creek Fire Departments	Automatic aid agreement	Not applicable	In process
Cherry Creek Waterworks District/Alberni-Clayoquot Regional District	Mutual aid agreement	Not applicable	2010
Coulson Manufacturing (sawmill)	Contract for fire services beyond City boundary	Full cost recovery formula	1994
Port Alberni Port Authority	Marine fire response and joint operation of a fire/emergency response vessel	Fire Department pays for its equipment, supplies and use of fuel	2010
Franklin River Road Community/Alberni-Clayoquot Regional District	Fire response and first responder services beyond City boundary	Full cost recovery formula	2010
Tseshah First Nations	Fire services	Full cost recovery formula	1984
Hupacasath First Nations	Fire services	Full cost recovery formula	1984
Alberni-Clayoquot Regional District	Emergency haz mat, basic medical and highway rescue services along Highway 4 on either side of Port Alberni	\$1.00 per year	1992

FIRE DEPARTMENT CONTRACTS (cont'd.):

Organization	Nature of Agreement	Revenues/Fees	Date of Agreement
Emergency Management BC	Compensation for highway rescue services as preapproved by PEP	Per incident	NA *
Port Alberni Fire Fighters Association	Collective agreement	Compensation and benefits as specified	2004

* NA = Not available

ORGANIZATIONS THAT DEPEND ON THE FIRE DEPARTMENT FOR CONFINED SPACE COVERAGE

WorkSafe BC requires that employers have access to rescuers with self-contained breathing apparatus (SCBA) when their workers enter confined spaces. In some cases, workers in confined spaces are at risk from dangerous chemicals.

In Port Alberni, employers have chosen to have the Fire Department provide their rescue back up services rather than training and equipping their own staff or contracting for such services.

Employers in Port Alberni who are depending on firefighters include:

- City Engineering
- Hospital
- Catalyst Paper
- Western Forest Products
- Contractors such as Alberni Engineering

FIRE DEPARTMENT SCHEDULE OF FEES AND FINES

This exhibit summarizes the key fees and fines relating to Fire Department services, excluding HST. A complete list of fees and fines is presented in Schedule A of Bylaw #4665.

Service / Issue	Fee / Fine
Use of fire hydrant	\$25
Fire Prevention Officer letter regarding status of outstanding Fire Commissioner order	\$40
Wood/pellet/solid fuel stove inspection fee	\$100
Inspection of storage tank	\$.005 per litre capacity with minimum of \$40
Testing of private fire hose	\$15 per length
Boarding up fire damaged buildings	Materials and labour, plus 10%
Information on hydrant water pressures and flows	\$35
Burning permit	
Requirement to keep lands/yards/premises in safe condition	Up to \$2,000 on conviction
Requirement to clean a chimney, flue or other heating apparatus	Up to \$2,000 on conviction
Deposit of combustible materials	
Dumping of inflammable liquids in sewer or draining system	Up to \$2,000 on conviction
Lack of maintenance of fire extinguishers when using inflammable liquids	Up to \$2,000 on conviction
Use of inflammable liquids for cleaning	Up to \$2,000 on conviction
Leakage of fuel from a vehicle	Up to \$2,000 on conviction
Failure to comply with municipal building bylaw	Up to \$2,000 on conviction

MISCELLANEOUS FIRE DEPARTMENT STATISTICS

Mutual Aid Incidents in 2010:

Mutual Aid	SOURCE		
	Cherry Creek	Sproat Lake	Beaver Creek
To Port Alberni	4	-	-
From Port Alberni	-	-	-

FIRE DEPARTMENT REVENUE AND EXPENSES FOR 2010

Revenues (contracts, fees, service charges)	\$149,197	\$149,197
Expenses ³		
Administration	260,520	
Fire Crew	1,609,989	
Personnel Expense	37,340	
Communications	11,149	
Fire Prevention	99,335	
Hall, Boat Shed Maintenance	63,588	
Vehicle Maintenance	158,138	
Tools, repairs and supplies	57,994	
Emergency Program	5,310	
Regional Fire Services	2,320	
Other	<u>106</u>	
Total Expenses		<u>2,305,789</u>
Net Fire Department Expense		<u>\$2,156,592</u>

³ This excludes North Island Dispatch costs which were calculated to be \$102,450 for all emergency services in the City

SOURCES OF FIRE DEPARTMENT REVENUES

Fees

Solid fuel furnace inspections (50@ \$100)	\$5,000
PEP/out of City responses	3,758
Other fees and fines	1,844

Service Contracts

Fire /rescue services ¹	91,394
North Island College	2,939

<u>Donations and Grants</u> ²	7,452
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Training Assistance

Training	30,150
Other	<u>6,660</u>

Total	\$149,197
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¹ Services to Coulson Manufacturing and two First Nations communities

² For example, donations from Fire Prevention Week

PORT ALBERNI FIRE DEPARTMENT PERFORMANCE COMPARISONS

This exhibit compares the Port Alberni Fire Department with the departments in six similar communities. Detailed statistics and comparative analyses are provided in Appendix A.

Evaluation Factor	Port Alberni Measure	Port Alberni Rank Out of 7 ¹	Average of Other Departments	Notes
Total Department staff (career and auxiliary)	21.8	8 th (lowest)	29.8	Below average; other departments have a large number of volunteers or paid on call firefighters
Total career firefighters	19.8	5 th (highest)	18.2	Slightly below average
Department staff per 1000 of population (career and auxiliary)	1.2	7 th (highest)	2.7	Below average
Annual incidents per 1000 of population (all types)	67	3 rd (highest)	60	Slightly above average
Fire Department cost as a percent of total City operations	10.1%	3 rd (highest)	9.7%	Above average
Fire Department cost per capita	\$128	4 th (highest)	\$129	Average
Fire Department expense per hour	\$263/hr	5 th (highest)	\$293/hr	Below average
Fire Department cost per \$100,000 of assessed value (land and improvements)	\$115	4 th (highest)	\$102	Above average
Overtime as a percent of firefighter payroll	5%	5 th (highest)	8.7%	PA overtime hours are 3.5% of standard hours
Cost per incident	\$1,920	6 th (highest)	\$2,774	Below average

¹ Ranking from high to low (i.e. 8th equals lowest)

SUMMARY OF FIREFIGHTER CREW SIZE REQUIREMENTS

This exhibit summarizes factors relating to determining the staffing of shift crews in the fire department.

Source of Criteria	Crew Size Criteria / Requirement	Enforceability
WorkSafe BC	Minimum of 4 firefighters for structure fires	Enforceable
Fire Underwriters Survey	Minimum of 3 firefighters for structure fires	Not enforceable
National Fire Protection Association	4 firefighters for structure fires	Not enforceable but used as a court standard for assessing proper fire service response
City of Port Alberni	Crew of 4 firefighters for structure fires	Mandated through City Bylaw # 3599
Service response demands	4 firefighters needed for structure fires; minimum of 3 firefighters on vehicle crash and highway rescue	Not enforceable
Port Alberni Fire Fighters Association collective agreement	No provision for crew size. All firefighters must be PAFFA members. Firefighters are specified as career staff	Requirement for career firefighters is enforceable
Volunteer firefighter support from nearby communities	Volunteer crews are available to assist Port Alberni	Mutual aid agreement

KEY FIRE DEPARTMENT STAFFING OPTIONS

Key staffing options we reviewed are summarized below.

Option	Advantages	Disadvantages	Cost Impacts	Ease of Implementation
Status quo – continue with the current 4 person crew	<ul style="list-style-type: none"> Maintenance of NFPA standard crew levels 	<ul style="list-style-type: none"> No reduction in costs 	<ul style="list-style-type: none"> No change 	No issues
Move to a 3 person shift crew (i.e. 4 shift crews each with 4 firefighters) and provide 4 firefighters through call outs	<ul style="list-style-type: none"> Reduced costs 	<ul style="list-style-type: none"> Crew size below NFPA standard for structure fires Dependence on calling out off duty firefighters for fire calls Delayed interior attack response Crew safety issues 	<ul style="list-style-type: none"> Reduction of 2.8 firefighters 	May need to be negotiated with the PAFFA because of safety impacts
Move to a 3 person shift crew and utilize mutual aid	<ul style="list-style-type: none"> Reduced staffing costs 	<ul style="list-style-type: none"> Dependence on mutual aid Delayed interior attack response 	<ul style="list-style-type: none"> Reduction of 2.8 firefighters 	May need to be negotiated with PAFFA
Staff the hall with 4 firefighters for 14 hours a day (e.g. 8am to 10pm) Call out firefighters for night incidents	<ul style="list-style-type: none"> Reduced staffing costs 	<ul style="list-style-type: none"> Delayed response to night incidents Significant call out and overtime pay Potential to reduce Fire Underwriters ratings 	<ul style="list-style-type: none"> Estimated reduction of 6.8 firefighters 	New working conditions must be negotiated with PAFFA
Retain the 4 person shift crew and add volunteers	<ul style="list-style-type: none"> Added response for large events More fire/rescue trained staff in the City 	<ul style="list-style-type: none"> Likely recruit volunteers away from neighbouring departments 	<ul style="list-style-type: none"> New costs for training and stipends 	Must be negotiated with the PAFFA
Amalgamate the City's fire department with a neighbouring volunteer fire department	<ul style="list-style-type: none"> Added response for large events More time out of the City 	<ul style="list-style-type: none"> New training costs Continued recruiting needs 	<ul style="list-style-type: none"> Little cost impact assuming electoral area pays for its coverage 	Integration will likely need to be negotiated with PAFFA

KEY ROLES AND FUNCTIONS OF THE DEPUTY FIRE CHIEF

Key roles and functions of the Deputy Fire Chief are presented below.

Role / Function	Value to the Department / City
<u>Training</u> Continuous training of firefighters and crews	Essential and continuous requirement for safety, service performance and risk reduction
<u>Contract Training</u> Contract training of neighbouring volunteer fire departments. This improves integration of firefighters at major fires and mutual aid incidents	Development of common operating policies and practices Improved firefighter cooperation at major incidents
<u>Sharing on Call Time</u> Sharing 6700 annual hours of after hours/on call time on nights and weekends with the Fire Chief	Providing 3350 hours of unpaid on call time to the City
<u>Fire Chief Coverage</u> Standing in for the Fire Chief when he is on vacation, away for conferences and training, taking personal leave (i.e. \pm 300 hours/year)	Ensure that a manager is always available to shift crews
<u>Facilitating Relationship Management</u> Two management staff to build relationships and promote fire safety programs throughout the community	Improved relations with major business, industrial and home care organizations in Port Alberni
<u>Increased Management Capacity</u> Doubling the management capacity of the Department. This is important because of the life safety risks to staff and residents in delivery of fire/rescue services	Added capacity when, say, simultaneous incidents occur

KEY ROLES AND FUNCTIONS OF THE DEPUTY FIRE CHIEF (cont'd.):

Role / Function	Value to the Department / City
<u>Management Succession</u> Providing an internal successor for the Fire Chief who knows the Department, its services and the issues of delivering fire/rescue services in Port Alberni	Seamless coverage if the Chief is not available
<u>Technology Support</u> Ensuring that fire/rescue communications systems, information systems (e.g. FDM), hardware and fire department equipment and software perform	Continues to improve Fire Department systems, records and software applications
<u>Discipline</u> Assisting with staff discipline and performance management needs of the Department	Relieve the Chief of some discipline work

FIRE DEPARTMENT REVENUE OPPORTUNITIES

The following business opportunities were identified by Fire Department staff and their customers in the course of this review:

- Providing FDM and records management services to Ucluelet and nearby Fire Departments
- Delivering fire training services to Catalyst operations crews
- Providing initial haz mat response services to Catalyst
- Having the Chief Officers and the Fire Prevention Officer conduct inspections at Catalyst to help with their fire safety risk management
- Providing specialist training to volunteer fire departments in the Regional District
- Charging local employers for confined space rescue standby services
- Charging ICBC or crash victims for out of City highway rescue assistance

REVIEW METHODOLOGY

We carried out the following work in reviewing the operations, administration, services, costs and performance of the Port Alberni Fire Department.

- Interviewed 36 Fire Department members, City managers and community members regarding fire service operations
- Reviewed recent Fire Department reports and statistics
- Examined shift staffing data for 2008, 2009 and 2010
- Reviewed Fire Department costs and revenues
- Reviewed City fire bylaws
- Examined Fire Department related contracts and agreements
- Spent half a day in the community with the Fire Prevention Officer
- Researched City fire incident statistics for the past six years to identify trends and service demands
- Conducted a comprehensive survey of six other fire departments and spoke with most of the respective Fire Chiefs about their issues and concerns
- Summarized and analyzed the survey results and compared them to Port Alberni's Fire Department
- Researched alternatives and issues relating to firefighter crew size
- Analyzed the impacts of lower Fire Underwriters ratings on residential and industrial/commercial insurance rates
- Prepared a comprehensive report on our findings and recommendations

INTERVIEW LIST

We interviewed the following people in connection with our review of the Port Alberni Fire Department.

City

Peter Aspinall	Captain, Port Alberni Fire Department
Guy Cicon	City Engineer
Pat Deakin	Manager Economic Development
Ben Halychuk	Firefighter, President PAFFA
Chris Jancowski	Deputy Fire Chief
Theresa Kingston	Manager of Human Resources
Laurie L'Leureux	Emergency Planning Coordinator
Ken McRae	Mayor
Tim Pley	Fire Chief
Cathy Rothwell	Director of Finance
Scott Smith	City Planner
Cindy Solda	Councillor/Chair – Protective Services Committee
Randy Thoen	Fire Prevention Officer
Ken Watson	Chief Administrative Officer
Gord Weller	RCMP Officer in Charge

Community

Mark Braithwaite	Harbour Master, Port Alberni Port Authority
Mike Carter	Executive Director, Port Alberni Chamber of Commerce
Larry Cross	Technical Specialist, Catalyst
Robert Duncan	CEO Hupacasath First Nation
Bruce Fitzgerald	Manager, Catalyst
Lisa Gallic Webber	Planning/Public Works Administrator
Rod Hiltz	Assistant Terminal Manager, Port Alberni Port Authority
Larry Hodgson	Chief Engineer, West Coast General Hospital
Joe Holmes	Manager APD Sawmill
John Kuch	Manager Coulson Sawmill
Murray Matchett	Housing Manager, Hupacasath First Nation
Tom Paisley	General Manager, Catalyst
Bruce Patterson	Unit Manager, BC Ambulance Service
Jim Sarkany	Manager, Coast Claims Service Ltd.
Cindy Stern	CAO, Tseshah Indian Band

Other

Drew Kilback	Director, Risk & Environment, Catalyst Paper, Richmond
Peter Klaver	Fire Chief, Sproat Lake
Marcia McNeil	Lawyer for the City
Mike Sparrow	Fire Chief, Cherry Creek
Charlie Starrett	Fire Chief, Beaver Creek
Chris Vrabel	Deputy Fire Chief, Campbell River/North Island Dispatch Services
Amanda Ward	Manager Emergency Services, District of Ucluelet

APPENDIX A

**FIRE DEPARTMENT COMPARISON
REPORT**

This report summarizes the results of a survey of fire department operations, incident levels, costs and statistics carried out in March 2011 for the City of Port Alberni.

FIRE DEPARTMENT COMPARISON REPORT

This exhibit presents the data for 2010 from a survey of seven fire departments serving communities from 10,000 to 20,000 residents.

SECTION 1 – STATISTICS

Factor	Port Alberni	Campbell River	Cranbrook	Esquimalt	Fort St. John	Nelson	Powell River	Squamish
Population served	18,000	31,400	26,000	17,300	20,000	10,000	14,000	16,000
City area (sq. km)	22	143	32	7	23	19	43	103
Number of fire halls	1	2	1	1	1	1	3	2
Number of fire/rescue trucks	5	8	6	4	6	4	5	7
Career firefighters	19.8 ¹	20.6	22	20	24	12	12	5
Volunteer firefighters	-	50	-	-	-	-	-	60
Paid on call firefighters	-	-	12	-	12	21	30	-
Department support staff	-	-	1	1.5	1	3 + 1 dispatch	1	1
Non IAFF Officers	2	3	2	5	2	2	2	2
Department operating costs	\$2.3M	\$3.266M	\$2.428M	\$3.126M	\$4.089M	\$1.6M	\$2.237M	\$1.760
Operating costs as % of City's budget	10.1%	7.9%	8%	12%	12.8%	10%	8.5%	9%

¹ Includes the Fire Prevention Officer

FIRE DEPARTMENT COMPARISON REPORT (cont'd.):

Factor	Port Alberni	Campbell River	Cranbrook	Esquimalt	Fort St. John	Nelson	Powell River	Squamish
IAFF payroll \$ 2010	\$1,484M	\$1,759M	\$1,820M	\$2,359M	\$2,394M	\$,982M	\$1,154M	\$,434
IAFF overtime \$ 2010	\$72,000	\$52,200 ¹	\$60,000	\$172,000	\$600,000	\$41,000	\$96,000	\$48,000
Department revenues \$ 2010	\$149,000	\$356,000	\$750,000	\$7,700	\$761,000	\$122,000	\$11,500	\$135,000
Furthest distance for out of area highway rescue	60 km	90 km	13 km	20 km	225 km	13 km	25 km	21 km
Fire Underwriters rating – residential	1	1	NA	3	2	5	2	2 + 4 ²
Fire Underwriters rating - industrial	4	4	NA	7	5	5	5	5
Date of last Fire Underwriters review	1985	2009	1987	1980's	2006	1999	2010	2008
Total incidents in 2010	1,197	2,256	1259	1,104	684	1,031	830	590
Structure fires in 2010	38	84	31	10	50	20	17	16
Fire losses \$ 2010	\$403,000	NA	NA	\$190,000	\$13M	\$1.3M	\$321,000	\$950,000
EMS incidents 2010	573	1,339	877	703	100	386	530	138
Number of fire inspections 2010	781	848	1360	446	600	911	967	1,080
Average incident response time (minutes)	6 min	8.3 min	NA		4 min, 30 sec	5.6 min	6 min	6.42 min

¹ Understated

² Some areas have a lower rating

FIRE DEPARTMENT COMPARISON REPORT (cont'd.):

Factor	Port Alberni	Campbell River	Cranbrook	Esquimalt	Fort St. John	Nelson	Powell River	Squamish
Collective agreement expiry	Dec 2006	Mar 2010	Dec 2008	Dec 2009	Dec 2009	Dec 2011	Dec 2011	Mar 2010
Source of dispatch services	North Island	North Island	Own Dept	Saanich	Own Dept	Own Dept	North Island	ECOMM
Annual contribution to equipment reserves	\$111,000/yr	\$63,000	Not available		Not available	None for 2011	\$130,000/yr	Not available
Total assessed value 2010 \$	\$1,998M	\$4,508M ¹	\$2,348M	\$3,360M ¹	\$2,409M	\$2,370M ¹	\$1,543M	\$3,871M
Updated fire bylaws within past 3 years	No	Yes	Yes	No	No	Yes	Yes	No
Incident trend increasing in past 3 years	No	No	Increasing incidents	No	No	Increasing incidents	Increasing incidents	Increasing incidents

¹ Estimated by Consultant

FIRE DEPARTMENT COMPARISON REPORT (cont'd.):

SECTION 2 – SERVICES

Services Provided	Port Alberni	Campbell River	Cranbrook	Esquimalt	Fort St. John	Nelson	Powell River	Squamish
Interface fire suppression	✓	✓	✓		✓	✓	✓	✓
First responder	✓	✓	✓	✓	✓	✓	✓	✓
Road rescue	✓	✓	✓	✓	✓	✓	✓	✓
Confined space rescue	✓	✓	✓	✓	✓	✓	✓	
Trench rescue	✓	✓	✓		✓	✓	✓	
High angle rescue	✓	✓			✓	✓	✓	Low angle
Urban search and rescue		✓			✓			
Haz mat response	✓	✓	✓	✓	✓	✓	✓	
Water/marine rescue	✓	Land based only	✓					✓
Out of area services	✓	✓			✓	✓	✓	✓
Plan checking	✓	Partial		✓	✓	✓	✓	✓
Dispatch services		✓	✓		✓	✓		
Dispatch for other departments		✓	✓		✓	✓ (Public Works; BC Hydro)		
First Nations contract services	✓	✓	✓					✓

FIRE DEPARTMENT COMPARISON REPORT (cont'd.):

Services Provided	Port Alberni	Campbell River	Cranbrook	Esquimalt	Fort St. John	Nelson	Powell River	Squamish
Services to nearby community	✓	✓	✓		✓	✓		
Contract training services	✓					✓		✓
Public education	✓	✓	✓	✓	✓	✓	✓	✓
Fire inspections	✓	✓	✓	✓	✓	✓	✓	✓
Fire bylaw enforcement	✓	✓	✓	✓	✓	✓	✓	✓
Emergency planning	✓		✓	✓		✓		
Cooperative purchasing								
Area equipment standards	✓							
Regional fire service specialization				✓ (haz mat)	✓	✓		✓
Mentoring nearby departments	✓	✓	✓			✓	✓	
Provision of mutual aid	✓	✓				✓	✓	
Giving more aid than rec'd		✓				✓	✓	

FIRE DEPARTMENT COMPARISON REPORT (cont'd.):

Services Provided	Port Alberni	Campbell River	Cranbrook	Esquimalt	Fort St. John	Nelson	Powell River	Squamish
EMS policy	D and E calls only	Respond from A to E calls on a selective basis	Life threatening assistance only	Only respond to life threatening calls	D and E calls on a selective basis	No call too small	Respond to B calls and up	
Other services	Regional District contract for haz mat, rescue and EMS	Deliver North Island Dispatch Services; Provide services to three First Nations and one Electoral Area	St. Eugene Fire Service Contract, Castlegar call forwarding, Rural area "C" Fire/Rescue Service		Industrial contract 2 hours away; Fire suppression to rural area around City	Working alone monitoring for City; Alarm monitoring contract for Area E		

FIRE DEPARTMENT COMPARISON REPORT

SECTION 3 – ANALYSIS

Factor	Port Alberni	Campbell River	Cranbrook	Esquimalt	Fort St. John	Nelson	Powell River	Squamish	Survey Average	Average W/O Port Alberni
Cost of fire department as a % of city operating cost	10.1%	7.9%	8%	12%	12.8%	10%	8.5%	9%	9.8%	9.7%
Cost of fire department per capita	\$128	\$104	\$93	\$181	\$104	\$160	\$150	\$110	\$129	\$129
Cost of fire department per \$100,000 of assessed value	\$115	\$72	\$103	\$120	\$170	\$59	\$145	\$45	\$104	\$102
Career firefighter FTEs per 1,000 residents	1.1	0.7	0.9	1.2	1.2	1.4	0.9	0.3	1.1	0.9
All firefighter FTEs per 1,000 residents	1.2	.8	1.4	1.4	1.9	3.5	5.6	4.2	2.5	2.7
2010 fire losses per \$100,000 of assessed value for structures/improvements	\$32	NA	NA	\$57	\$773	\$85	\$35	\$98	\$180	\$210
Overtime as a % of total pay	5%	3% ¹	3%	7%	25%	4%	8%	11%	8.2%	8.7%
Structure fires per 1,000 residents	2.1	2.7	1.2	0.6	2.5	2.0	1.2	1.0	1.7	1.6

¹ Understated

FIRE DEPARTMENT COMPARISON REPORT (cont'd.):

Factor	Port Alberni	Campbell River	Cranbrook	Esquimalt	Fort St. John	Nelson	Powell River	Squamish	Average	Average W/O Port Alberni
Medical assistance incidents as a % of total	48%	59%	70%	64%	15%	37%	64%	23%	47%	47%
Inspections as a % of total incidents	65%	38%	108%	40%	88%	88%	117%	183%	91%	95%
Sum of residential and industrial Fire Underwriters ratings (Fire Insurance Index)	5	5	7	10	7	10	7	10	7.6	8.0
Fire Services cost per incident	\$1,920	\$1,448	\$1,929	\$2,830	\$5,980	\$1,550	\$2,700	\$2,983	\$2,667	\$2,774
Fire Service cost per hour (i.e. 8760 hours in a year)	\$263	\$373	\$277	\$357	\$467	\$183	\$196	\$201	\$290	\$293
Incidents per 1,000 residents	67	72	48	64	34	103	59	37	61	60

APPENDIX B

**FINANCIAL IMPACTS OF
REDUCED FIRE UNDERWRITERS
RATINGS**

CONTEXT

Port Alberni currently has very favourable residential and commercial ratings for the quality of its fire services. In turn, this means that fire insurance rates are as low as possible throughout the City

In this section of the report, we will provide a model to estimate the impacts of reducing the resourcing, responsiveness and/or service levels of the City's Fire Department and the impacts of these changes in insurance premiums.

CAVEATS

There are a number of options for the City in reducing the costs of its fire services. Several of these options will require negotiation with the Port Alberni Professional Fire Fighters Association. These notes do not evaluate the complexities and likelihood of being able to implement changes in fire service operations.

Also, there are a wide range of businesses, residents and structures in the City. As a result, we are only able to estimate the overall impacts of changes in the fire service ratings. A detailed analysis of fire insurance rate changes is a study in itself and is beyond the scope of our review.

STAFFING OPTIONS

To reduce fire service costs, the City could take the following actions (assuming agreement by other stakeholders):

- Move to a three person crew
- Move to a two person crew
- Add volunteer firefighters or paid on call firefighters to supplement career firefighters
- Eliminate the Fire Prevention Officer position

FIRE UNDERWRITER RATING IMPACTS

We expect that residential Fire Underwriter ratings would only change if the City moved to a two man firefighting crew and/or eliminated the Fire Prevention Officer.

Accordingly, moving to a three person crew would have no impact on fire insurance premiums.

However, with a three person crew, the Fire Underwriters rating for industrial/commercial structures is likely to change as noted in the following chart:

	From Current Rating	To Potential New Rating	Insurance Premium Impacts
Resident	1	3	Nil
Business/Industrial	4	5	20% increase

The 3 and 5 ratings are similar, on average, to the other communities we surveyed.

INSURANCE COST ASSUMPTIONS

With a reduction in firefighter crew staffing and Fire Underwriter ratings, fire insurance costs would increase for industrial and commercial building owners/ leases/renters in the community. Thus, City costs for fire services would be reduced but there would be increased costs to the business community.

In analyzing this change, we have made the following assumptions:

- Fire insurance is based on improvements and building contents and does not cover land values.
- Residential "improvements" in Port Alberni are \$885M.
- Only 75% of those responsible for residential fire insurance purchase this coverage
- The insured value of the contents in residential structures is 50% of the value of the structure (i.e. fire insurance is for 150% of the value of the structure).
- Commercial/industrial improvements in Port Alberni are \$378M.
- Only 90% of those responsible for commercial/industrial improvements purchase this coverage

- Commercial/industrial fire insurance also covers stock/inventory/goods in process
- This coverage is, on average, equal to the value of the commercial/industrial buildings and structures that are in place (i.e. fire insurance coverage is twice the value of the “improvements” where such insurance is purchased)
- For simplicity, rates for fire insurance are assumed to be:
 - \$500 per \$100,000 of resident structure value
 - \$500 per \$100,000 of commercial/industrial structure value

To keep the analysis workable, we have not provided for the business interruption insurance coverage that would normally be part of a commercial/industrial fire insurance policy.

We assume moving to lower/worse Fire Underwriter ratings will have the following impacts in fire insurance premiums:

- There are no residential insurance premium impacts of moving from a 1 to 3 Fire Underwriter’s rating
- With commercial/industrial insurance premiums, the impact of moving from a 4 to 5 Fire Underwriter’s rating is a premium increase of 10%

COST IMPACT ANALYSIS

The impacts of a decline in fire insurance ratings are estimated in the following chart. These are highly subjective calculations and are based on limited factual information. Accordingly, these estimates should be considered as indicators rather than actual amounts.

Based on this model and assumptions, the fire insurance premium costs for industry and business would likely increase in the order of \$340,000 if the City’s fire service capabilities and Fire Underwriter ratings are reduced. This is a highly subjective number and is for illustrative purposes only.

Factor	Residential	Commercial/Industrial
Value of improvements	\$885M	\$378M
Value of contents/inventory/goods in process	(50%) \$443M	(100%) 378M
Value of potential coverage	\$1,328M	\$756M

Factor	Residential	Commercial/Industrial
Rate of purchasing insurance	75%	90%
Insurance coverage purchased	\$996M	\$680M
Hypothetical insurance rate per \$100,000 of coverage	\$500/\$100,000	\$500/\$100,000
Total insurance premiums	\$4,980,000	\$3,400,000
Increased insurance premium cost from lower Fire Underwriter ratings	Nil	10%
Added costs to the community for fire insurance	\$Ø ¹	\$340,000 ¹

¹ This is a highly subjective number and is for illustrative purposes only.

