

# **Inter-Municipal Cooperation in the Fire Services**

**FSS 499**

**Capstone Project**

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Program Coordinators: Greg Metcalfe and Sarah Wareing

Program Advisor: Peter Reimer

Haida Siegmann, Student #1001676133

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## **EXECUTIVE SUMMARY**

Budget constraints are often a reality in this age of local governance. Municipal governments are realizing the challenges associated with achieving and/or maintaining high service levels without increasing the costs to citizens. Fire departments are no exception to this situation.

To achieve efficiencies and cost savings through economies of scale, there has been a trend in local governments to look towards amalgamation, regionalization of services, shared service agreements, and alternate service delivery methods. Examples of consolidated and cooperative service arrangements include the provision of recreation services, emergency services, and waste disposal. It is hypothesized that engaging in consolidated and cooperative service arrangements could be a strategic means of achieving efficiencies and cost savings through economies of scale.

In the fire service economies of scale are sought through shared provision of services such as emergency specialty responses, 911 dispatch services, and purchasing of tools and equipment, as well as, through special agreements such as mutual aid, automatic aid, and shared services agreements. Municipal fire departments are interested in achieving efficiencies and cost savings in their operations—the North Shore is no exception to this movement.

To this end, the three North Shore municipalities of the City of North Vancouver, the District of North Vancouver, and the District of West Vancouver entered into an informal shared services arrangement in late 2010. This inter-municipal cooperative arrangement developed as a joint recruiting process and

grew to encompass training of recruits; later, training of the frontline ranks in a variety of disciplines was included. It currently encompasses a shared response model, mechanic services, and fleet purchasing. The three municipalities have created an informative video that qualitatively describes the successes of the program as reported by the three municipal managers and fire chiefs in 2013 (<https://www.youtube.com/watch?v=Qv8J8nf-qwo>).

This research paper begins with an introduction to Vancouver's North Shore and the three North Shore fire departments. The North Shore shared services arrangement leads to a discussion of capitalizing on successes, and consideration of extending the original arrangement beyond the suppression service, and into the fire prevention service. There is a general explanation of the functions of fire prevention service provision, its similarities and uniqueness across the North Shore, as well as legislative requirements.

The literature review portion of this paper explores the academic research on consolidated and cooperative municipal services in the province of British Columbia, throughout Canada, and outside the country's borders. Analysis was performed through this research in order to achieve clarity on the broad assumption that consolidation and cooperation are cost effective ways to provide service to citizens. The trend towards inter-municipal cooperation forms a large body of the research and provides depth to the speculation that these types of agreements provide economies of scale. Notably, this research is not solely specific to the fire service and could be applied to a broader range of services.

To provide additional perspectives to this research, a province-wide survey was circulated to the career and volunteer fire departments in British Columbia. The quantitative results of the questionnaire have been statistically represented and provide insight into both the trend as well as the future of consolidation and cooperation in the fire services. The qualitative feedback from the respondents has been included, providing relevant industry expert opinion and insight. This could prove invaluable when moving forward with a new jurisdictional service provision model, as it represents a range of industry expert opinions on the strengths, weaknesses, opportunities and threats to these types of arrangements.

The scope of this research paper is not to analyze the efficiency and effectiveness of ongoing shared services on the North Shore, nor is it intended to tackle the political climate of such decisions. This paper is intended to provide support for future decision making.

The outcomes of this paper are recommendations for future directions for combining the fire prevention services on the North Shore. It also includes perspective of the importance of change management techniques, strategic planning, and the role of communications within an implementation plan. This research paper and these recommendations could be considered as parallel paths for other fire services considering changes to their service delivery models, as well as other departments within local government.

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## **CHAPTER ONE – INTRODUCTION & PROJECT DESCRIPTION**

### **The Questions**

Should fire departments enter into consolidated or cooperative agreements for service with neighbouring municipalities? Could consolidated or cooperative service arrangements help fire departments recognize efficiencies and cost savings through economies of scale for service delivery for their citizens? Should steps be taken towards additional inter-municipal cooperation between the City of North Vancouver, the District of North Vancouver, and the District of West Vancouver to provide more of these benefits to their citizens?

### **The Opportunity**

The “North Shore” is a commonly used geographic reference for a region that extends from the eastern waters of Deep Cove in the District of North Vancouver, moving geographically toward the west to include the City of North Vancouver, then across the Capilano River to the District of West Vancouver, and terminating near Horseshoe Bay. The North Shore is physically separated from Vancouver by the Burrard Inlet to the south, and surrounded by Seymour, Grouse and Cypress Mountains to the north. It is connected to Vancouver by two bridges—the Lions Gate Bridge and the Second Narrows Bridge. The boundaries of the municipalities are seamless to most travellers and residents who utilize North Shore wide services for shopping, recreation, education, transportation, and business opportunity—and whether they are planning it or not, they use the fire service. The three separate municipalities have three separate municipal



halls, three separate fire departments, and three separate International Association of Fire Fighters local unions.

The District of North Vancouver is the eastern most community on the North Shore and was incorporated in 1891. With an area of approximately 160 square kilometers and a population of 89,437 (Lammam et al, 2014, Table 2, Page 6) it comprises urban and wild-land territory and a burgeoning commercial and industrial base. Its citizens are served by five strategically located fire stations with nearly 130 career members who respond to approximately 4,200 calls for assistance each year. The District of North Vancouver Fire Rescue Services (DNVFRS) also provides the only fire training facility on the North Shore (District of North Vancouver, 2015).

The fire service on the North Shore dates back to 1907 when the City of North Vancouver established its fire department. With well over 100 years of service, the North Vancouver City Fire Department (NVCFD) currently operates with 65 career staff based in one centrally located hall. NVCFD serves a developing and dense population of 51,870 (Lammam et al, 2014, Table 2, Page 6) within its 12 square kilometers (City of North Vancouver, 2015).

The District of West Vancouver has a reported population of 44,284 (Lammam et al, 2014, Table 2, Page 6) and encompasses an area over 87 square kilometers. It is a destination for many North Shore residents, as it is known for the BC Ferry Terminal at Horseshoe Bay, Ambleside Beach, Lighthouse Park, Park Royal Shopping Centre, and Cypress Mountain ski hill.

The municipality is primarily residential and is served by four fire halls and approximately 108 career staff (District of West Vancouver, 2015).

In late 2010 the three City Managers from the three North Shore municipalities provided direction to the fire departments to undertake a shared service program for emergency services in North Vancouver City, North Vancouver District, and West Vancouver. At their direction, shared fire services on the North Shore were created and implemented in January 2011.

As discussed in an information video created by the municipal managers and chief officers discusses that the impetus for this program was based on the need to improve service to the citizens of all three communities, while containing the costs associated with providing those services. The video reported that through collaboration the three municipalities could provide service more efficiently and improve service levels.

In order to hire, train, and respond together the fire departments had to develop common procedures for working together. Common procedures included Policy and Standard Operation Guidelines (PSOGs) that incorporated the best components of each department into one policy, planned responses that include two or more municipalities, and combined training. Consistent training across the borders was achieved through utilizing instructors from all three municipalities with expert knowledge in their disciplines.

Being able to standardize training across the borders, interact and exchange leadership and supervision positions as well as organize and share resources, has provided a benefit to the three communities. The reported benefit

has resulted in better coverage across all three municipalities, better responses, and risk management. The camaraderie and reliance on the neighbouring municipalities has provided for a “depth and coordination of resources that enhances service to the entire North Shore” (YouTube, 2013). This inter-municipal cooperation has laid the framework to extend shared services to other divisions on the North Shore, such as Fire Prevention services.

Over the years, the three North Shore municipalities have shared other services including recreation services, policing services, cemetery services, and emergency management services. The three North Shore municipalities have been actively participating in emergency services since 1978 as an inter-municipal agency through the North Shore Emergency Management Office (NSEMO). “NSEMO supports both municipal and regional North Shore response capabilities by coordinating effective and efficient preparedness, planning, response, and recovery activities by bringing together resources from the three municipalities, response agencies, public safety lifeline volunteers and other organizations on the North Shore” ([www.nsemo.org](http://www.nsemo.org)). This is accomplished through a formal agreement—North Shore Emergency Management Office Agreement Bylaw, 2002, No. 7417—which details composition of organization personnel and duties, executive committee composition and decision-making authority, funding, cost-sharing by portion of population, and termination of agreement. NSEMO provides a broad scope of public information on their website including annual reports, bylaws and agreements ([www.nsemo.org](http://www.nsemo.org)).

### **Significance of the Opportunity**

An opportunity exists to provide additional shared services on the North Shore. Although not recognized in the referenced YouTube (2013), an important motivational impetus behind consolidated and cooperative services is typically service cost reduction through utilizing economies of scale. Realizing economies of scale is a resounding goal of organizations that are challenged to reduce operating costs to strengthen their bottom line, as supported throughout the literature research in Section 3.

Of pertinent interest to this topic, Lamman and MacIntyre in the Fraser Institute (2014) study provided an analysis of municipal spending in Metro Vancouver over a 10-year period (from 2002-2012). They showed that municipal spending had typically increased over the study period, “outpacing reasonable benchmarks such as inflation and population growth” (2014, Page iii). They provided that “municipalities are not starved for revenue” and that “the total revenue of Metro Vancouver municipalities had grown faster than the dramatic growth in spending.” They conclude that there is “little evidence to support that municipalities are experiencing a fiscal squeeze caused by insufficient revenue.” Also, of note, new development has contributed “considerable growth” and that the “real fiscal problem at the municipal level is poor control of spending” (2014, Page iv). The three largest categories of increases in spending are reported to be protective services, solid waste and utilities, as well as, park, recreation and culture.

“Economies of scale” is a microeconomics term used to describe an organizational service efficiency that results when there is an increase to service production, and/or a lowering of cost. Economies of scale can be recognized through such areas as group purchasing, specialization of personnel, marketing, and sharing of technological advances. Sancton et al (2000) reports that reasons for inter-municipal cooperation include a desire for efficiency of service provision over a wider area, effectively recognizing city-regions and elastic boundaries. They discuss that service activities achieve economies of scale at different optimal sizes, and that service efficiencies and effectiveness may be realized for some services and not others. Skelly (1997) provides that constraints to using innovative methods may result in a weak financial position and restrictions from being able to realize economies of scale. Bish (2011) states that consideration for specific joint agreements and contracts for services can take advantage of economies of scale. Bish recognizes that “a system of local governments should be viewed as consisting of groups of citizens organized into cooperatives to provide services they prefer through a variety of production arrangements on a suitable geographic scale” and that “local governments need to be small enough to play a role in strengthening civil society in an age of globalization in other arenas” (Bish, 2001, Page 27). The recognition of optimization of economies of scale within inter-municipal cooperation resounds throughout the literature review and supports potential to recognize additional service benefits to North Shore citizens.

### **Shared Fire Services on the North Shore**

Shared fire services on the North Shore is presently being realized within the suppression division through sharing of fire mechanical services, and fleet purchase (to some extent). It has been verbally reported by all three municipalities that the current arrangement has resulted in efficiencies and service improvements (YouTube, 2013). While tri-municipal outreach is being performed with public safety messaging, the shared service arrangement is not currently being realized for fire prevention services. Within the fire prevention services—fire inspections, public education, plan review, and fire investigations—there exists an opportunity to recognize more potential benefits for their citizens.

Fire prevention services are mandated services through the BC Fire Services Act. Under sentence 26(1) “a municipal council must provide for a regular system of inspections of hotels and public buildings in a municipality” (BC Laws.ca, 2015). On the North Shore, each of the three fire departments has its own fire prevention division. All three of the individual fire prevention divisions provide fire inspections, public education, plan review, and fire investigation services to their respective communities (Table 1).

The DNVFRS fire prevention staff complement currently includes a non-union Chief Officer, and four career prevention positions. There are approximately 3,700 inspectable properties within their municipal boundaries, including residential apartments, schools, recreation centres, commercial properties, and industrial properties. There are two bridges that connect the District of North Vancouver with Vancouver, and portions of the Trans Canada

Highway 1 run through the community. There are a number of significant industrial properties including Canexus Chemicals Can. Ltd., as well as, marine/rail shipping facilities such as Vancouver Wharves. Capilano University, Grouse Mountain and Seymour Mountain (ski hills), as well as, numerous canyons and creeks, and hiking and cycling trails make this community unique.

The City of North Vancouver continues to densify its population through development of residential properties and combined commercial/residential developments. A listing on the City's website includes 12 major developments that are in progress (City of North Vancouver, 2015). In addition to ensuring that developments comply with the BC Fire Code, the North Vancouver City Fire Department (NVCFD) has approximately 3,400 existing inspectable properties. Unique inspectable properties in the City of North Vancouver include Cargill and James Richardson International (rail/shipping waterfront grain terminals), Neptune Bulk Terminals (rail/shipping coal and sulphur), Seaboard Shipping Terminal, Vancouver Drydock, and the North Shore Studios. The City is also a public transportation hub and home to the Seabus Terminal, which provides access to Vancouver and is a transfer point for bus connections to the District of West Vancouver and the District of North Vancouver. The hospital for the North Shore region is located in the City of North Vancouver. NVCFD is staffed by a non-union Assistant Chief, and five fire prevention staff.

West Vancouver Fire & Rescue (WVFR) is distinctly a residential community, with numerous high buildings, large homes, and steep slopes. While the community does not have a great deal of industry, it is home to a marine

research station, the BC Ferry Terminal, Ambleside Beach, Lighthouse Park, Park Royal Mall, Cypress Ski Mountain, and Hollyburn Golf and Country Club. It is a destination for residents from across the entire North Shore.

There are similarities and differences across municipalities as well as between the fire departments and their prevention services. However, they all supply the same broad categories of service: fire inspections, public education, plan review, and fire investigations. All three departments have National Fire Protection Association certified staff (Table 1) that perform these broad functions, as well as, professionally qualified staff providing supervision and leadership for these four key functions.

<b>Table 1 – Services Provided by North Shore Fire Department Prevention Offices</b>				
	Fire Inspections	Fire Investigations	Public Education	Plan Review
NVCFD	Yes	Yes	Yes	Yes
DNVFRS	Yes	Yes	Yes	Yes
WVFR	Yes	Yes	Yes	Yes
Are these services provided or supervised by certified staff?	Yes	Yes	Yes	Yes

There are some service features that are unique amongst the three departments. For example, the fast pace and growth of development in the City of North Vancouver has resulted in NVCFD staff with a great deal of code knowledge related to developments. DNVFRS staff are experiencing growth in



new developments of town centres and high buildings. WVFR and DNVFRS both have extensive public education programs. Both departments previously had dedicated career members in charge of all of their public education programs. DNVFRS fire inspectors perform flow tests on all of their hydrants, have their own training ground, and a transportable Fire Safety House.

While the community population size, area and use vary amongst municipalities, they include many of the same components. The District of North Vancouver and West Vancouver both have ski mountains and multi-use trails in their backcountry. All three municipalities have waterfront and marinas. Both the City of North Vancouver and the District of North Vancouver have extensive marine shipping and rail transport industrial facilities, which travel through the District of West Vancouver. Trans Canada Highway 1 runs through all municipalities, as does the Trans Canada Trail, and the CN Railway.

As with all careers in the fire service, training and education are an ongoing necessity in the Fire Prevention field. Over the years, life safety systems have become more complicated. Technology continues to advance, resulting in hardware and software being built into a buildings' life safety systems that have become exceedingly more computerized and interconnected. Along with the technological advances, citizens have expressed greater expectation for advice and interpretation of standards and codes as they relate to the life safety systems within their buildings. With current budget constraints, it is a challenge to continue to provide exceptional service to all community citizens.

## **CHAPTER TWO – LITERATURE REVIEW**

### **Consolidation/Amalgamation**

This literature review and the following survey results should provide perspective to consolidation and cooperative actions of a number of municipalities, including the results towards recognizing service efficiencies and economies of scale. In an effort to detail two dominant paths for analyzing whether benefits are being achieved, this research has been divided into two broad categories: consolidation/amalgamation and shared services/inter-municipal cooperation. This analysis relates to municipal services as a whole; however, where applicable specific research relates to the fire service, it has been indicated.

Dollery and Grant (2013) discuss whether or not amalgamations of smaller municipalities into larger entities would improve operations and strengthen financial sustainability. The Dollery and Robotti 2008 paper is referenced, and states that the proponents of large local government promise that the structure will “induce cost savings, improve the quantity, quality and mix of local services, boost administrative and technical capacity and strategic management, facilitate more effective lobbying with higher tiers of government, and increase financial sustainability” (Dollery and Grant, 2013, Page 54). However, their perspective is that the empirical evidence on this topic is mixed.

O’Brien (1993) reviews a number of case studies, including the 1990 plebiscite for amalgamation of Abbotsford and Matsqui. These two municipalities participated in regional sharing of sewerage systems, an ice arena and swimming

pool, economic development, and mosquito control. They participated in inter-municipal agreements for fire protection, recreation and transit through a 50/50 joint service committee. O'Brien's perspective is that inequities existed in cost sharing and committee representation, which resulted in tension that led to consideration of amalgamation. As such, a consultant was contracted to undertake an amalgamation study. In 1990, the first of two plebiscites failed as a result of an unsuccessful majority vote against amalgamation.

In 1993, the second referendum successfully resulted in a majority vote. Sancton et al (2000) reviews the Abbotsford amalgamation referendums as reported by O'Brien, and by Igor Vojnovic in 1998. Their perspective is that the successful outcome of the amalgamation vote was a result of residents being convinced of claims of "modest" cost savings, standardization of tax rates, and that Abbotsford residents would be able to maintain their identity—the amalgamated area would be known as Abbotsford. O'Brien states that "amalgamation in Abbotsford did not result from service-production problems, or even from expectations that service production would be significantly improved. It resulted from the political fact that voters in two separate communities decided that what united them had become more significant than what divided them" (Sancton et al, 2000, Page 51).

O'Brien (1993) discusses the pressure facing local governments due to globalized economy, increasing public services, social problems, and urbanization. He advises "most efforts at consolidation or restructuring have had lasting benefits, not necessarily in reduced costs, but in effectiveness, staying

power and acceptability. It is noted that British Columbia has “followed a policy of not imposing consolidation, though it offers help to local communities considering amalgamation” (O’Brien, 1993, Page v).

As a result of reviewing the “Symposium on Amalgamation and Financial Sustainability in Local Government,” Dollery and Grant (2013) provide perspective on the empirical evidence on the impact of mergers. They make reference to Garcea and LeSage’s 2005 categorization of local government reform as found in “Municipal Reform in Canada” and in particular, structural reform, and whether it is theoretically possible to determine an optimal size for operational efficiency of local government. Their perspective is that structural reform affects operational efficiency and thereby financial viability and that efficiency and effectiveness is dependent on optimal size. They recognize that there is controversy on this topic—opponents dispute “any systematic relationship between population size and government performance” while an overwhelming amount of proponents believe that larger governments will result in efficiencies and economics of scale. They identify an analytical weakness in that much of the existing empirical research is descriptive and based on case study through consultant and/or government reports. Dollery and Grant discuss that the empirical evidence on this topic is “far from settled” and that there is “an urgent need for comprehensive empirical work using rigorous modeling and other analytical techniques” (Dollery and Grant, 2013, Page 54).

In 1998, the provincial government of Ontario consolidated six lower-tier governments and the metropolitan Toronto into one new City of Toronto. Bird

and Slack (2013) argue that the amalgamation of Toronto did not achieve the desired objectives of general cost savings that the provincial government had based their decision on (Bird and Slack, 2013, Page 108). Proponents of amalgamation held that a consolidated large municipality would be financially and technically capable of providing services that would result in positive economies of scale. However, instead of realizing cost savings through elimination of duplicated and overlapping services, expenditures increased in all service areas except for library services. While amalgamation increased the financial viability of the smaller communities that were incorporated into Toronto through access to the greater tax base, it resulted in higher spending because of “bureaucratic congestion and problems delivering services to remote areas,” as well as an “upward harmonization of wages and salaries” (Bird and Slack, 2013, Page 111).

Bird and Slack state that “economies of scale depend on the service in question and the units of measurement—such as the jurisdiction size or the size of the facility” (Bird and Slack, 2013, Page 111). Data supplied by the Ontario Ministry of Municipal Affairs and Housing (2013) reflects a pre-amalgamation downtrend in fire expenditures, followed by an upwards-sloping increase after amalgamation. Their perspective is that it is challenging to interpret if the increase in expenditures is related to wages, or, whether they are due to higher service levels and/or the provision of specialized services. Bird and Slack recognize that an inherent weakness in the analysis is that there is no consistent comparable information available (Bird and Slack, 2013, Page 113).

In the Toronto example, it is noted that although some high-level management positions in the fire service were eliminated, the salaries of the frontline staff in the newly amalgamated service equalized up to the Toronto salary and benefit package. Bird and Slack realize that “this upward harmonization of wages and salaries generally outweighs any cost savings.” The amalgamation also reduced citizen access to government, resulting in less participation by local residents (Bird and Slack, 2013, Page 121).

Janeiro (2012) provides a summary of the context in which the amalgamation of Toronto occurred. He examines the state of the city in relation to the anticipated objectives of amalgamation and provides recommendations to improve the situation. He recognizes that proponents believe that the increased size of Toronto eliminated redundant services and provided political strength as a result of its greater political size. Alternately, the opponents believe that the size has resulted in a citizen disconnect from government and increased financial costs (Janeiro, 2012, Page 74). He recognizes that for the most part, the financial impact has been “costly and divisive” (Janeiro, 2012, Page 75). Among the financial details are reference to the challenges and costs associated with standardizing union wages amongst 56 collective bargaining units (Janeiro, 2012, Page 83). Janeiro states, “the one-time costs of amalgamation and increased labour expenditure have been a drain on city resources” and that “socially, the new City of Toronto remains fundamentally fractured along urban-suburban lines” (Janeiro, 2012, Page 93).

In his doctorate dissertation for the Institute of Municipal Finance and Governance, Found (2012), analyzes economies of scale for fire and police services in Ontario. He reports that “a consistent justification cited by provincial politicians, bureaucrats, and restructuring commissioners and advisors for forcing municipal amalgamations in Ontario was the promise of cost savings resulting from economies of scale.” As well, that “technical” economies of scale relate average costs to output, and that “population” economies of scale relate to per-capita costs and population. He establishes that “congestible public goods” such as municipal services have a direct link between population and output, thus “the two notions of economies of scale are linked” (Found, 2012, Page 2). Found’s perspective supports his use of an econometric model for estimating costs for 445 municipalities in Ontario and results in findings that the fire services “exhibited U-shaped per household costs which were minimized at about 20,000 residents. The cost of the fire department was clearly affected by the number of calls received and average response time” (Found, 2012, Page 20). Found’s perspective is that the overall evidence provides that economies of scale exist, but they are limited. The “scale effect is inconsistent with constant returns to scale, unlimited increasing returns, and global decreasing returns” (Found, 2012, Page 20).

Andrews (2013) explores claims in the United Kingdom (England and Wales) that local government amalgamation improves financial sustainability through reduced costs and improved “fiscal health” (Andrews, 2013, Page 123). The 2009 trend in the United Kingdom was for larger local governments in

response to a perception that smaller local governments were inefficient. Larger governments would be able to take advantage of economies of scale. Andrews argues against single tier authority based on political, competitive, technical and organizational points of view. He makes reference to a movement in England and in Wales in 2010 and 2011 away from government imposed unitary authorities, and instead towards a sharing of services to seek out economies of scale (Andrews, 2013, Page 137). There is supposition that the 2009 amalgamations in England did not realize the expected successes because they were largely two-tier government consolidations of a vertical nature. His evidence suggests that the financial sustainability of the larger local government was weakened, as economies of scale were not realized, and that savings were not “substantial enough to outweigh the disruptive costs of amalgamation” (Andrews, 2013, Page 136). He also provides evidence from Israel suggesting that horizontal consolidation can be more financially successful (Andrews, 2013, Page 137).

In his thesis paper, Horn (2014) explores the history of local government restructuring in North America. He explores traditional regional governance consolidations and notes that “central cities grew and mergers with surrounding municipalities were seen as inevitable” (Horn, 2014, Page 6). He refers to regionalism or metropolitanism. He explains “public choice theory” which grew in the 1950s, and became popular throughout the 1970s and 1980s. This theory focused on economic efficiency, finding that competition between regions was stimulated by which jurisdiction could provide the best services for their citizens, and that residents would reside where their preferences were best suited (Horn,



2014, Page 8). The competition between jurisdictions “was seen as a healthy manifestation of free market principles in the public realm” (Horn, 2014, Page 9).

Horn discusses a shift in the 1990s, back towards regionalism. Responding to the arguments against amalgamation, he explores city-region governance models as equity solutions towards regional governance problems. He considers that regional collaboration is essential for developing city-regions to include a core metropolitan area surrounded by polycentric areas (Horn, 2014, page 10). City-region models include second-tier government services, as well as, inter-municipal collaboration that result in efficiency, equity, and supporting civic voice. This theory of “new regionalism” challenges “thinkers to disassociate with any known boundaries and instead envisage at what scale specific services or functions should be delivered” (Horn, 2014, Page 42). His findings are supported by Bourne’s statement that stresses, “that the focus on consolidated and fragmented models conceals what in reality is an immense diversity of alternative forms of metropolitan governance” (Bourne, 1999, Page 28). He also references Tindal and Tindal’s metaphor that a “municipal government being like a business must be rejected as this analogy characterizes inhabitants as customers and not as citizens” (Tindal and Tindal, 2007). Horn’s perspective supports effective and equitable governance through requiring a modern city to plan beyond simple delivery of services and focusing on reimagining how its structure can thrive in the 21st century.

The Communique from C.D. Howe (2001) provides that cost savings of provincially forced amalgamations are disproven and provides support in favour

of smaller jurisdictions where flexibility is achieved through delivering services to residents at lower costs. Their perspective is that larger governments restrict voter's access and are less responsive to local needs. This is supported by their review of scholarly research discrediting notions that smaller jurisdictions are more costly. They report that inter-municipal contracting of services supports decision making based on local conditions and is more cost effective. This "polycentric" competitive structure thrives with flexibility on various scales. They state, "some of the fastest-growing metropolitan areas are among the most governmentally fragmented. Amalgamation, on the other hand, tends to eliminate the very characteristic of local government that are critical to successful low cost operations" (C.D. Howe, 2001, page 2).

Sancton et al (2000) discuss that residents of neighbouring municipalities share problems and have common needs that are not defined by their municipal boundaries. Cooperation and conflict can lead to calls for municipal amalgamations to reduce and eliminate duplicate services and overhead. The authors compare and contrast four Canadian municipal amalgamations and four inter-municipal cooperation arrangements. Recognizing that the eight case studies are all different and it is challenging to make generalizations, the authors suggest, "municipal amalgamations and inter-municipal agreements are not alternatives to each other. Inter-municipal agreements are pervasive. They are going to exist whether there are amalgamations or not" (Page 73). They note that services "can be provided without having one big municipal government, and that alternately having one big municipal government does not mean that there will be

no inter-municipal agreements” (Sancton et al, 2000, Page 73). Of note, in the four amalgamation cases examined, “none of these cases provided any evidence that amalgamations actually saved money” (Sancton et al, 2000, Page 73).

Alternatives to consolidation include inter-municipal agreements, revenue sharing, two-tier systems, one-tier-plus systems, and community sub-units. Each alternative should be evaluated in relation to an organization’s accountability needs, as each alternative has varying degrees of accountability. O’Brien (1993) provides direction for working together to find the best ways of providing services for economies of scale and cost savings. When considering whether or not to consolidate, there are a number of objectives that should be considered, including regional planning, regional economic promotion and development, equity and fairness, community interest, economies of scale, environmental protection, viability, disentanglement, inter-municipal conflict, strengthening local government, efficiency, strategic planning, reducing the provincial agenda, and accountability (O’Brien, 1993, Page 106).

### **Shared Services/Inter-Municipal Cooperation**

Sancton et al (2000) suggest a definition of inter-municipal cooperation to mean “any legislative or contractual arrangement short of the creation of a formal, ongoing, two-tier system in which each tier is responsible for a number of municipal services” (Sancton et al, 2000, Page 1). They reason that inter-municipal cooperation goals could include a desire for efficiency, as well as, establishing a service provision over a wider area, which effectively recognizes city-regions and elastic boundaries. There is discussion that service activities

achieve economies of scale at different optimal sizes, and that the opportunity to cooperate across municipal boundaries for some services and not others will recognize efficiencies and effectiveness. However, in addition to analysis related to potential economies of scale, when making a cooperative service change there is a need to consider lack of government accountability to their citizens and the impact that change will have upon the citizens' ability to influence design and decision making (Sancton et al, 2000, Page 2).

Conway et al (2011) report "the New England Strategic Alliance of Councils (NESAC) was established in 2004, by member municipalities in an effort to avoid forced amalgamation, through a five-member municipal model for shared services". A review of service provision was prompted by the withdrawal of one member municipality in 2009 and resulted in an analysis as a case study of what can go wrong with inter-municipal cooperation when a member municipality withdraws from a service arrangement. There are four recognized conceptual models of structural change in local government: merger/amalgamation, boundary change, resource sharing through service agreements, and resource sharing through joint enterprise. There is also recognition of alternative models for shared services and political decision making, including ad hoc resource sharing agreements, regional organizations, area integration models, virtual local government, agency model, and amalgamated councils (Conway et al, 2011, Page 209). This case study includes a qualitative research summary of the participating municipal general managers and mayors via interview questions. The conclusions that are drawn are to consider forming the service as an entity in

its own right as opposed to a vehicle to avoid amalgamation. It is explained that this should help to avoid a high probability of failure once the threat of amalgamation is gone. The authors recommend a more institutional structure such as a binding alliance model (Conway et al, 2011, Page 220).

Skelly (1997) acknowledges that municipalities are faced with “decreasing revenues and increasing service delivery responsibilities” (Skelly, 1997, Page vii). He explores alternate service delivery methods: contracting out, intergovernmental agreements, franchising, charging user fees to achieve efficient consumption of a service, vouchers, subsidy arrangements, using volunteers and promoting self-help. Alternate service delivery case studies in Canada are examined, and provincial legislation is discussed. An evaluation of criteria of efficiency, effectiveness, accountability and equity are considered. A distinction is made between supplying a service and producing a service. Supplying includes the activities of policy making and regulation. Producing is the operation and delivery of the service to the citizens. He states that “local government experts have argued that local government authorities should concern themselves more with “steering” (policy making) rather than concentrating solely on “rowing” (service delivery)” (Skelly, 1997, Page vii). Obstacles to alternative service delivery include: “the small fiscal base and geographic size of local governments, the view that local governments are service-delivery agents of the provinces, bureaucratic inertia, resistance from employees and lack of awareness of other approaches” (Skelly, 1997, Page vii). Skelly suggests that alternative service delivery can be grouped into three major

categories: contracting group that includes the private section, intergovernmental agreements and franchising; subsidy/fees group; and volunteer groups.

“Anticipated cost savings is the most common reason given for adopting alternative service delivery methods (especially privatization)” (Skelly, 1997, Page viii). Instead of raising taxes or cutting services and spending, Skelly provides support for considering more entrepreneurial solutions of alternative service delivery. Skelly (1997) provides that constraints to strategizing innovative methods for service provision could result in a weak financial position and restrict an organization from being able to realize economies of scale.

Kortt et al (2012) review empirical evidence in Australia and internationally regarding economic effects of shared services. The review is based on evidence that “top-down” forced consolidation of local government does not automatically result in economies of scale. Instead, joint provision of only some services via shared service arrangements leads to cost savings. A concurrent effect can be a “bottom-up” revival of regional development (Kortt et al, 2012, Page 47). The conclusion is made that success in shared services can be realized when suitable local government services are identified (Kortt et al, 2012, Page 58).

Bish (2001) provides “a review of 50 years of evidence on the relationship between the structure and performance of local government in metropolitan areas” (Bish, 2001, Page i). His research supports viewing local service provision through diverse means, and that “multiplicity of local governments and production arrangements are more responsive to residents’ needs and generally provide local government services at less cost than monolithic amalgamations” (Bish,

2001, Page i). He states “amalgamation...tends to eliminate the very characteristics of local government that are critical to the most successful and least costly systems” (Bish, 2001, Page i). Bish describes the nature of local government services and analyzes economies and diseconomies of scale, the effects of competition on service production, the relationships among government size, structure, and costs, and the relationship between the organization of production and efficiency. His perspective is that big government does not guarantee economies of scale, and that smaller governments can cost less but that they cannot produce all services efficiently. Further, that consideration for specific joint agreements and contracts for services could take advantage of economies of scale. Recognizing that “a system of local governments should be viewed as consisting of groups of citizens organized into cooperatives to provide services they prefer through a variety of production arrangements on a suitable geographic scale” and that “local governments need to be small enough to play a role in strengthening civil society in an age of globalization in other arenas” (Bish, 2001, Page 27). Bish supports governments of varying sizes providing specific services in a competitive environment in order to recognize the benefits of markets and federalism (Bish, 2001, Page 28).

McFarlane (2001) discusses city-regions as being “important nodes of social and economic activity, as the component municipalities share numerous interests” (McFarlane, 2001, Page 1). The study uses comparative and qualitative research techniques, examining governance options and structure. The benefits of city-region cooperation are examined, including economic

competition, decreased fiscal pressures, and strategic urban management. McFarlane's perspective is that "regional cooperation can be achieved without creating new government structures and can be produced through a variety of informal voluntary arrangements including special purpose bodies, mutual aid agreements, contracting out of services, joint training arrangements, and the use of volunteer organizations" (McFarlane, 2001, Page 2). He examines the advantages and disadvantages of inter-municipal service agreements. He concludes that the advantages could include flexibility, simplicity, combining well with other services, and relationship building. Alternately the disadvantages could include ad hoc arrangements, limitations to hard service delivery, and applicability for some regional issues such as growth (McFarlane, 2001, Page 9).

McFarlane also examines the governance systems in the western provinces, in particular, the regional district systems of British Columbia. He discusses the pressures and barriers to regional cooperation including global connection, increasing political power, economic development, developing mutual benefits, reducing fiscal pressure and cost savings, as well as, influence and pressures of provincial government. He also specifies that barriers could include financial resources, political roadblocks, regional mindset, inequity among municipalities, past relationships amongst municipalities, lack of cooperation of officials, fear of change, loss of autonomy, slow progress, failure to recognize benefits, public understanding, as well as, mistrust and extent of provincial government involvement (McFarlane, 2001, Page 18). The success of city-region



cooperation was discussed as being influenced by strategic factors, process factors, and attitudinal factors.

- The strategic factors include creating a shared vision, assessing the capacity of the region, showing tangible benefits and implementing incentives, developing long-term regional strategies, turning a problem into a catalyst, obtaining strong leadership, ensuring citizen involvement, as well as, collaborating with public and private interests (McFarlane, 2001, Page 26).
- Process factors include recognize the importance of the process, narrowing the focus, implementing and acting on decisions, using a bottom-up approach, and creating indicators of success (McFarlane, 2001, Page 28).
- Attitudinal factors include recognizing that regional issues are sensitive, expecting and understanding trade-offs, accepting local solutions, and recognizing the value in academic studies (McFarlane, 2001, Page 29).

McFarlane's perspective is that emphasis should be placed on avoiding top-down approaches to cooperation, and analyzing individual situations for "cooperative efforts to create stronger and more dynamic city-regions" (McFarlane, 2001, Page 29).

The basis of this report illustrates opportunities to make government more effective and efficient through cooperation, collaboration, and/or consolidation (Zettek and Stefko, 2003). Zettek and Stefko describe a trend of rising government costs, a stagnating local economy, rising taxes, and a national

recession (in the United States). This has facilitated a need to look locally for regional competition in service provision, and ways to reduce short-term and long-term costs of local government. Discussing the challenges for revenue generation and service reduction resulted in two key strategies: operate more efficiently and reduce the impact of mandates. "This report is intended to be a starting point for moving forward to make changes required to reduce the cost of local government through inter-governmental cooperation beyond the efforts that have been made to date" (Zettek and Stefko, 2003, Page 9). Some key functional areas for efficient delivery of services were identified to include water, sewers, public safety training, and emergency communications. It is discussed that "cooperation and collaboration opportunities have been, and will continue to be, accomplished among groups of two or more governments, working together, to pool resources and achieve economies of scale, without requiring a change in any structure of government" (Zettek and Stefko, 2003, Page 10).

Slack (2007) in "Managing the Coordination of Service Delivery in Metropolitan Cities," discusses the growth of urban population and large metropolitan area governance, as well as, the provision of services that spills over municipal boundaries. Global metropolitan governance structures are reviewed and a criteria for evaluation is proposed that includes efficiency (economies of scale), equity, accessibility and accountability, as well as, local responsiveness. Defining economies of scale as "where the per-unit cost of producing a particular service falls as the quantity of the service provided increases" (Slack, 2007, Page 9), she concludes that various services will have

different scales for example, “the optimal size of government may be different for fire services than for waste management” (Slack, 2007, Page 9) and that consideration given to inter-municipal services could take advantage by cherry picking services. Other considerations include externalities that exist when a neighbouring community is benefited by the costs of service born by a neighbouring municipality (Slack, 2007, Page 10). Other factors include equity in sharing costs and benefits of service, access, and influence over local government (Slack, 2007, Page 11). She provides a review of government structure, concluding the paper with global governance observations and providing the perspective that “there is no one size fits all model of metropolitan governance” (Slack, 2007, Page 56). When service objectives are similar amongst municipalities, inter-municipal agreements can work, as “few problems and processes stop at municipal boundaries” (Slack, 2007, Page 58).

The Bremner (2012) applied research paper focuses on identifying the barriers to functional consolidation of the training program on the North Shore. In the paper he identifies a number of factors that impede functional consolidations including fear of stakeholders and failure to communicate and plan. He references the Dugal Smith & Associates report from 2010 (no longer available on line), which is a cooperative report commissioned by the three North Shore municipalities to identify practical ways to further advance cooperation and shared services in the fire service. Among the recommendations from the Smith report are consolidation and aligning of fire bylaws and policies, dispatching of the closest fire apparatus regardless of municipal boundaries, managing certain

large equipment as a shared resource, consolidating fleet management, fire prevention, as well as, public education programs (Bremner, 2012, Page 45). The Bremner report provides a number of recommendations for successful cooperation including the importance of involving stakeholder groups, the importance of the planning stages, and the importance of properly communicating with all parties throughout the process.

Carr et al (1997) discusses alternate service delivery (ASD) as the contracting out of services that are supplied by non-municipal providers. They state that ASD can produce cost savings, but that it is difficult to provide the statistical analysis for cost savings per functional service, as many municipalities have no idea of the true cost of their individual services (Carr et al, 1997, Page 3). However, their perspective is that the most successful services to contract out are labour-intensive services such as waste management and recycling, and professional services such as engineering and information technology (Carr et al, 1997, Page 4). Their review concludes that the characteristics of successful ASD include strong political support, senior management leadership, willingness to work with employees and unions, using outside experts, clear cost baseline with bids, focusing on service quality as well as cost, and change management (Carr et al, 1997, Page vii). Alternately, the key obstacles to success, include contracting out prohibited by municipal staff collective agreements, lack of information about costs and quality of service, lack of in-house expertise for formulating proposals, and inadequate guidelines for ASD. Carr et al include reporting from respondents to an Ontario municipal officials survey, which

identified potential opportunities for ASD in environmental services, parking, maintenance, lighting, as well as, transportation, with the least interest in social services and emergency services (Carr et al, 1997, Page 4). Public-private partnerships were also explored to demonstrate the range of options available to municipalities.

### **Governing Legislation**

The Ministry of Municipal Affairs (2000) guide *Managing Changes to Local Government Structure in British Columbia* outlines the provincial responsibilities with regards to local government, including legislative framework, systems for adapting over time, and maintenance of relationships. As stated, “the Ministry of Municipal Affairs has the responsibility for overseeing change to the local government system, to ensure that the structure of local government best fits local needs, as well as local and provincial objectives” (Ministry of Municipal Affairs, 2000, Page 1). The process of change is initiated at the local government level and decided on by local citizens. Restructuring can take place with regards to municipal boundaries, amalgamation, as well as, the restructuring of regional districts and improvement districts. The guide explains the principles of municipal restructuring and amalgamation, as well as the restructuring process, and roles and responsibilities.

The Ministry of Municipal Affairs (2006) guide entitled *Municipalities & The New Local Government Act*, discusses the process and milestones of change from the *Municipal Act* to the *Local Government Act*. This legislation recognizes local governments as “an independent, responsible and accountable order of

government” (Ministry of Municipal Affairs, 2006, Page 1). The *Local Government Act* gives local governments “broad corporate powers, broad service powers, new tools for partnership arrangements, more financial planning ability, improved planning tools, more accountability and consultation, and less provincial oversight” (Ministry of Municipal Affairs, 2006, Page 3). This change allows local government to be innovative in service delivery choices and provides the ability to “develop new partnerships to provide service and facilities” (Ministry of Municipal Affairs, 2006, Page 5). Recognizing that municipalities provide services to people outside of their boundaries, it allows for cooperative arrangements with other municipalities (Ministry of Municipal Affairs, 2006, Page 7). Technical documents to guide processes include “Using the New Local Government Act, and Public Private Partnerships” ([www.marh.gov.bc.ca](http://www.marh.gov.bc.ca)).

The Ministry of Community, Sport and Cultural Development (2015) advises that local government provides services for its citizens as determined by council. Services can be provided to the community either directly, by another municipality, or by another organization. It recognizes that a municipality may choose to provide a service jointly with another municipality in order to achieve economies of scale ([http://www.cscd.gov.bc.ca/lgd/municipality/municipal\\_services.htm](http://www.cscd.gov.bc.ca/lgd/municipality/municipal_services.htm)).

The Fire Services Liaison Group (2009) represents key stakeholder groups in BC that have “responsibility for or direct interests in the fire/rescue service” (Fire Services Liaison Group, 2009, Page 3). Their report entitled “Transforming the Fire/Rescue Service” recognizes that the costs and pressures

for providing these services are beyond government control and include:

“changes in technology, demographics, and that the economy and the regulatory environment are driving up the costs to protect the public” (Fire Services Liaison Group, 2009, Page 3). The report includes 14 recommendations to be addressed by the provincial government along with the problems, key issues, identification of how an issue improves public safety, background, as well as, supporting evidence. The reports recommendations are:

- Establish a fire services advisory board;
- Broaden the mandate of the Office of the Fire Commissioner;
- Standardize competencies and training standards;
- Support training, recruitment and retention for volunteer departments;
- Improve the fire investigation and inspection system;
- Identify and fill gaps in service coverage;
- Investigate local and regional efficiencies;
- Provide administrative and management support to volunteer departments;
- Establish local government responsibility for fire/rescue services;
- Update compensation agreements for services to provincial agencies;
- Improve training opportunities;
- Enforce competency, training and operating standards;
- Research and develop best practices; and
- Improve inter-operability in the Fire/Rescue service.

In British Columbia, the Office of the Fire Commissioner is the provincial government responsible for “the administration and enforcement of fire safety legislation, co-ordination of the network of Local Assistants to the Fire Commissioner, fire-loss statistics collection, fire inspection, and response to major fire emergencies. It also provides advice on delivery of fire protection services, public safety education and firefighting training standards. It has very limited field operations.” Provincial legislation does not mandate the requirement for a community to have a fire department. However, if a community has a fire department, the local government officials are responsible for evaluating the needs of the citizens for services, providing the necessary resources, and identifying the capability of the department (Fire Services Liaison Group, 2009, Page 11).

The Fire Commissioner's response to the recommendations of the FSLG report includes implementation statements for each of the previously noted recommendations. It advises that the *Fire Services Act*—last revised in 1978—is the “primary legislation in British Columbia with respect to fire inspections for public buildings, fire investigations, and fire safety and prevention.” Currently, the Act is under review with amendments to the Act providing “a potential avenue to support improvements in the delivery of fire services in British Columbia” (Ministry of Justice, 2012, Page 10).

Of note, an additional recommendation for the FSLG is discussed, extending immunity to all local governments with fire departments in the province. Trends towards litigation over fire losses in British Columbia over the past 25



years have resulted in approximately 130 claims against the fire service resulting in an estimated award of \$8,000,000. The liability and risk management concerns include negligence over fire losses and increasing expectations by residents for levels of performance (Ministry of Justice, 2012, Page 44). Currently, fire departments and local governments do not have statutory immunity. Local governments have the option of obtaining liability insurance through the Municipal Insurance Association of British Columbia (MIA). However, section 287 of the *Local Government Act* provides immunity to fire service employees operating on behalf of local government, regional districts, and improvement districts. Reference is made to legislation in Alberta through Section 535 of the *Municipal Government Act*, and in Saskatchewan through Section 34 of the *Fire Prevention Act* and Sections 354 through 357 of the *Municipalities Act* (Ministry of Justice, 2012, Page 43).

### **CHAPTER THREE – PROCESS APPROACH**

#### **Research Approach**

This paper was approached systematically based on both practical research through an empirical study involving first-hand knowledge of the fire service and local government, and published research as it related to the topic in order to develop the base of knowledge. The scope of the research was not restricted to the fire service. But was purposely left broad so as to encompass the potential effects on local government holistically, in order for this research to be relevant to other local government services. Theoretical research from published academic works, as well as, government-archived documents provided a broad base of

knowledge on three sub-topics for the literature review. In addition, a survey questionnaire was distributed to all career and volunteer fire departments in British Columbia as a means of forming a substantive base for historical trends in the province as well as future directions.

### **Survey Results**

On July 29, 2015 the member fire department of the Fire Chiefs' Association of BC (FCABC) received a survey entitled "Inter-municipal Cooperation – Fire Services". As authorities of their departments, Fire Chiefs were invited to be part of a research questionnaire. The purpose of the questionnaire was to compile quantitative and qualitative data related to the capacity to provide efficiencies and economies of scale to consolidation and cooperative efforts for service provision in the Fire Services. There was no obligation to complete the survey or participate in the research; participants could decide to withdraw at any time.

All completed questionnaires and results were confidential and not attributable to any individual or organization. Where comments could potentially identify an individual or organization, those identifying comments have been removed through editing. Completed forms were required to be returned before August 15, 2015 to be included in the data compilation of provincial statistics for this research paper.

The surveys were distributed through the FCABC to 326 member fire departments. A total of 22 surveys were received by the due date, representing a return rate of approximately 6.7% of the fire departments in BC. The survey can

be found in its entirety as Appendix B. The tabulation of survey results can be found as Appendix C to this research paper.

The respondent departments represented 1064.5 career members out of a reported approximate provincial total of 3800 (BCPFFA, 2015) and an additional 678 volunteer/paid-on-call members. Of the respondents 77% of the replies were from municipal departments, 14% regional, and 9% were other (improvement district and industrial).

**Chart 1 - Type of Local Government Classification of Respondents**



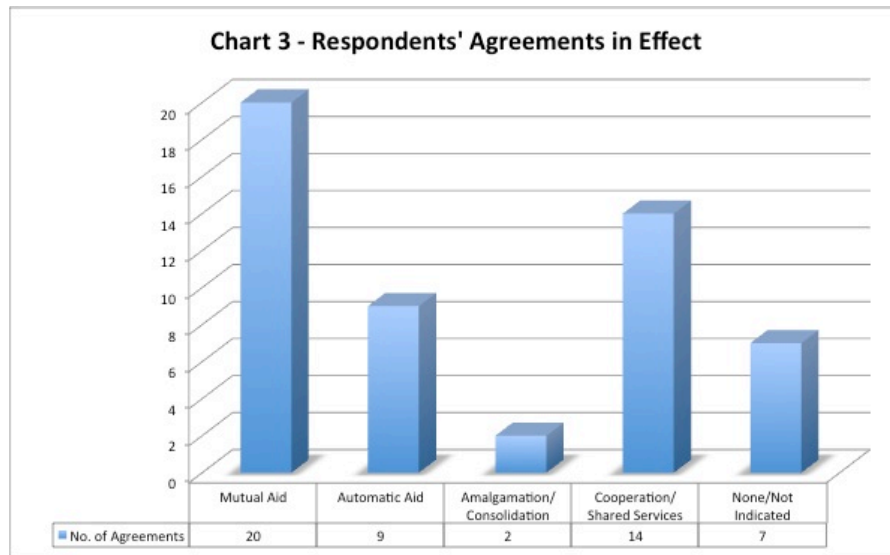
The majority of respondents were from combined departments that included both career and volunteer/paid on call members.

**Chart 2 - Types of Fire Service Represented by Respondents**



Respondents were asked if their departments participated in either mutual aid or automatic aid with neighbouring municipalities. They were asked if they were either a consolidated/amalgamated fire service and if they participate in

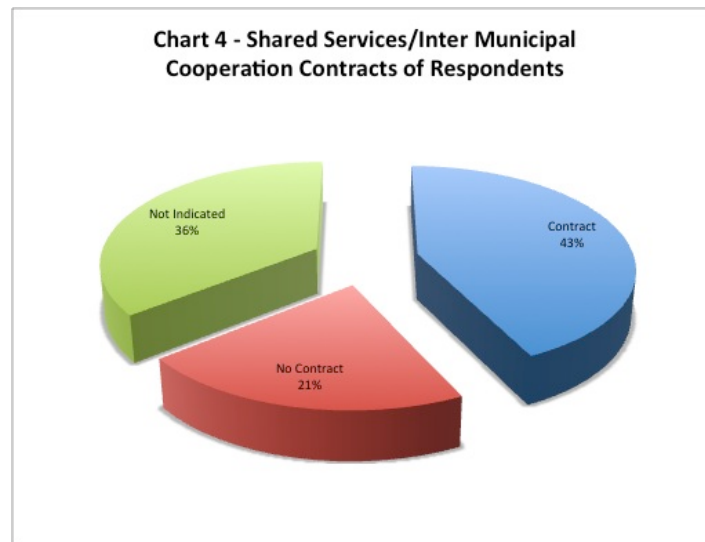
shared services/inter-municipal cooperation. A breakdown of the responses shows 91% of respondents participate in mutual aid agreements, 41% in automatic aid, 1% are consolidated/amalgamated fire services, and 64% participate in shared service arrangements.



Of the 64% of respondents that participate in shared service arrangements, 43% indicated that they have a written contract for the service provision. Respondents were also given the opportunity to provide comments related to their opinion and/or knowledge of their contracts. Those comments are as follows:

- The contract for service is very weak and does not allow for stakeholder recommendations or any chance to better the service level.
- Service is enacted under Regional District Bylaw.
- Bylaw endorsed and signed by all municipalities.
- Covers liabilities and the recouping of costs post incident.
- Informal at this time.

- Formal contract provides clarity, demonstrates intent of all parties to work cooperatively.



Respondents were asked whether they believe that economies of scale exist in the fire service. This question was asked within two different perspectives: a consolidated/amalgamated fire service and a shared service/inter-municipal cooperative arrangement. Respondents were also given the opportunity to provide comments.

Of the respondents, 18% indicated that they believe that economies of scale exist in consolidated/amalgamated fire services. Their comments related to the specifics of service provision are as follows:

Increased service levels are indicated in consolidated/amalgamated fire services:

- Composite response ensures career staff response at times when paid-on-call are not available.

- Reduced inter-operability.
- More members and apparatus at the time.

Additional service levels are indicated in consolidated/amalgamated fire services:

- Motor vehicle incident, swift water, Hazmat & Confined Space Rescue, High/Low angle rescue technicians, SCBA testing, repair and maintenance, common purchasing of apparatus and equipment, in-house FR instructors, technical services committee and fire prevention program, in-house certified inspection facility for apparatus inspection, preventative maintenance and repair.
- Specialty teams.

36% of respondents indicated that they believe that economies of scale resulted through shared service/inter-municipal cooperative efforts. Their comments related to the specifics of service provision are as follows:

Increased service levels are indicated in shared services/inter-municipal cooperative arrangements:

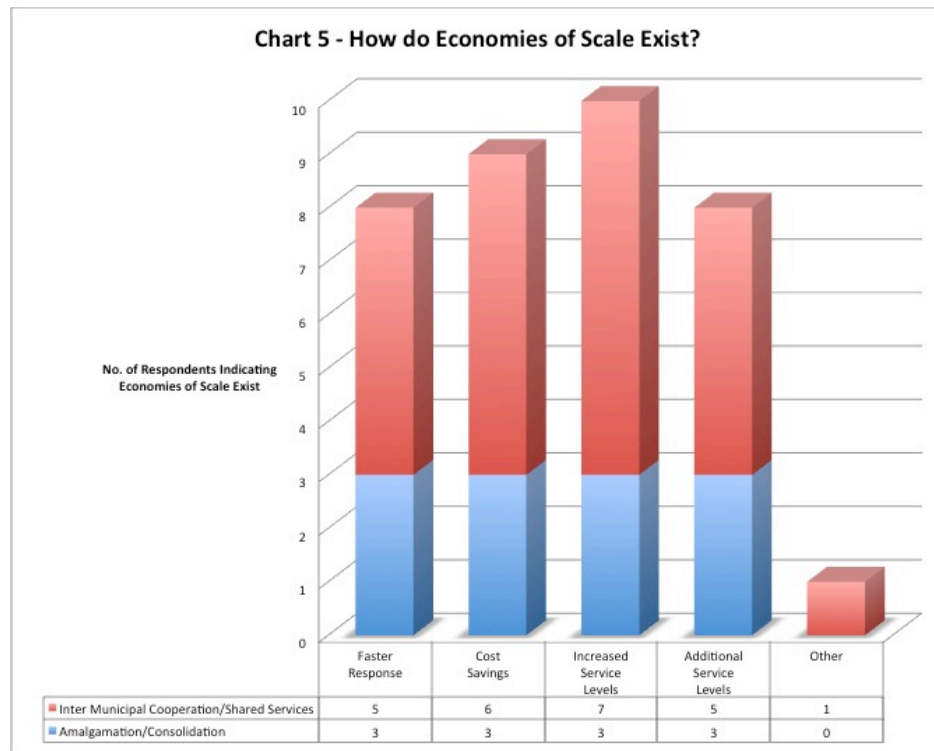
- Composite response ensures career staff response at times when paid-on-call are not available.
- More than we could do as a single municipality in all emergency program areas.
- 2<sup>nd</sup> due apparatus faster. More expertise arriving on scene sooner.

- Ability to maintain service levels in other areas during major “location/service deleted” incident.
- Faster response in volunteer coverage areas, depth of response in career coverage areas.
- Large incident response capacity.

Additional service levels are indicated in shared services/inter-municipal cooperative arrangements:

- More than we could do as a single municipality in all emergency program areas.
- Additional wildfire capability.
- Currently provide “location/service deleted” lift procedures and emergency response.
- It is anticipated that our shared response to the “location/service deleted” will result in an initial adequate response.
- Specialty service response.

The following graph represents a breakdown of the indicated service effects by economies of scale as identified by faster response, cost savings, increased service levels, additional service levels, and other. Responses were provided separately for both consolidated/amalgamated fire services and for shared services/inter-municipal cooperation.



There were a number of services that respondents indicated as shared.

Their comments are as follows:

- Motor vehicle incident, swift water, Hazmat & Confined Space Rescue, High/Low angle rescue technicians, SCBA testing, repair and maintenance, common purchasing of apparatus and equipment, in-house FR instructors, technical services committee and fire prevention program, in-house certified inspection facility for apparatus inspection, preventative maintenance and repair.
- Structural firefighting, rope rescue, confined space, rescue and Hazmat.
- In the near future “sharing Emergency Response/identified transportation system deleted for anonymity” with a neighbouring



municipality. This will involve ongoing training and some streamlining in our communications and dispatch procedures through ECOMM.

- Emergency response services for difficult to access areas.
- Structural firefighting, filling air bottles, MD fundraising.
- Emergency response capability.

Respondents were given the opportunity to provide their opinions related to the benefits and/or strengths, as well as, the risks and/or threats to both consolidated/amalgamated fire services, and shared services/inter-municipal cooperation. The following represents the comments received from the respondents:

The strengths and/or benefits of consolidation/amalgamation in the fire service:

- Reduced cost and duplication of services and equipment and halls.
- Cost savings are a start but depending on proximity to other fire stations the benefits may be few.
- Significant cost savings based on regional delivery of above services, composite response capacity under the authority of one Chief Officer.
- Better daytime response numbers, less equipment required, halls can specialize, less members needed.
- Reduction of administration costs, more favourable costs with increased buying power and increased inter-operability when two mutual aid partners become the same department.

- The main benefits are community and fire fighter safety. The ability to provide services across jurisdictions by sending the closest most appropriate apparatus will provide better service to the citizens of those communities. Having apparatus that are the closest to events dispatched regardless of jurisdiction will provide increased safety for fire fighters, as there is greater probability of staff attending the scene quicker. This can affect strategies and tactics of the first-in Officer and crew, as they may have to wait for the second-in crew from their own jurisdiction much longer (thus potentially changing from offensive to defensive mode of fire operations), compared to the closest unit being dispatched to the scene regardless of jurisdiction. This also can offset duplicate costs for coverage of areas, i.e., halls in neighbouring jurisdictions being built very close to each other. Another benefit could be the reduction in costs for municipalities for managing large or complex events. The potential to delay staffing increases until a higher threshold is met may save municipalities' budget increases.
- Reduced costs, improved response times, increased fire fighter safety, additional services, more efficient and effective.
- You can get faster response times, depth of strength of numbers of personnel, more equipment per fire, more variety of equipment (tenders, pumpers, ladders).
- Cost savings, reduction in duplicated services.

- Increased service levels including faster and more effective response using existing resources of staff and apparatus. Increased training and maintenance of training due to available backfill and coverage. Standardization of training, communication and education amongst participants.
- Improved effectiveness of response and increased efficiencies.
- Improved services (response times, depth of response, ability to access/share limited resources such as ladder trucks, ability to share specialized service teams, interoperability during significant events) cost control, demonstration of good leadership and use of public resources.
- Access to more apparatus and equipment not stored in one location.
- High degree of benefit for specialty services and large incident response. Moderate benefit to improved response time capability.

The risks and/or threats of consolidation/amalgamation in the fire service:

- I see the risk as taking away an empire, or as I would call it, empire building, who has the biggest toys. Just a waste of tax dollars.
- Rural areas pose response problems based on distances traveled. Leaving one fire response area to enter another depletes the resources and leaves a community vulnerable. Most departments in “location deleted” have recruitment and retention problems.
- Perceived loss of control of service when delivered Regionally vs. Municipal. This is very easy to say but very hard to quantify as any

municipal partner has a say in delivery of services they participate in under the Regional District model.

- A bit of loss of community.
- Morale may be affected amongst employees, turnover rates could increase and/or egos prevailing over common sense.
- The main risk is unmanaged growth and inequities in service delivery. There are many tactical issue that must be taken care of, such as, Standardized Operating procedures, Standardized training, Standardized Incident Command, Standardized apparatus/equipment types and configurations. There will need to be one Computer Aided Dispatch (CAD) system in place to ensure regional consistency of dispatch. The regional radio system will need to be adopted by all participating municipalities.
- Very little down-side if managed properly.
- Different governing bodies to report to, resulting in different ideas on what type of responses and training requirements, different philosophies regarding response personnel (volunteer vs. career), different levels of training (for all levels of personnel).
- Initial difficulty in amalgamating two services. Loss of pride or ownership of current organization.
- Slower addition of needed fire resources in communities experiencing growth. Hiring of more staff and apparatus or equipment purchase could get bogged down if elected officials have differing opinions on

the needs in their own community. Most councils are willing to participate in such arrangements as long as it doesn't cost any money, reaching consensus amongst inter-municipal elected officials when it is time to raise budgets is very difficult. It is unlikely that one council would approve additional resources if the other council did not. Many RCMP contracts involve inter-municipal participation and they struggle with this all the time. Also fire locals can have some reservations about such cooperation as the collective agreements between locals can differ and this causes pressures as one local may see the lesser contract of another local as a threat to their hard fought benefits.

- No risk to fire service. There is general resistance to change, fear of loss, egos, union feel consolidations will result in loss of firefighter positions.
- Perception of inequity, perception of hidden agenda(s).
- Regional District services are “fire-walled” from each other as each is based on a different geographic area with differing tax rates and differing capital and operational needs.
- Increased maintenance and logistical needs for a volunteer department.
- Lack of coverage locally to meet mandate and City service provision levels in event of responding out of district.

The strengths and/or benefits of shared services/inter-municipal cooperation in the fire service:

- Significant cost savings based on regional delivery of services, composite response capacity under the authority of one Chief Officer.
- Better daytime response numbers, less equipment required, halls can specialize, less members needed.
- Ability to provide a greater breadth of services as neighbouring agencies can specialize as opposed to providing redundant services in close proximity.
- Reduced costs, improved response times, increased firefighter safety, additional services, more efficient and effective.
- Better use of resources as seen in wildland firefighting where resources from various jurisdictions are used at an emergency if there is not an emergency in that organization's home jurisdiction.
- Effective response using existing resources, shared services or response leads to joint training, which leads to standardization of procedures between departments.
- The benefits are effectiveness of response, safety (more FFs at emergency incidents that are trained together operating from the same playbook) remove redundancy yet increase capacity.
- Savings to budget, training, non-duplication of personnel and equipment.
- Improved services (response times, depth of response, ability to access/share limited resources such as ladder trucks, ability to share specialized service teams, inter-operability during significant events)

cost control, demonstration of good leadership and use of public resources.

- Improved service capacity, particularly for smaller agencies/jurisdictions. Increased firefighter safety.

The risks and/or threats of shared services/inter-municipal cooperation arrangements in the fire service:

- Perceived loss of control of service when delivered Regionally vs. Municipal. This is very easy to say but very hard to quantify as any municipal partner has a say in delivery of services they participate in under the Regional District model.
- Losing the local volunteer interest.
- If one department is reliant on another for services and that other department can no longer provide services it could have a negative impact. Example: Neighbouring town has an aerial and you provide Hazmat. They write off their ladder or fail to maintain it, now your community is without an aerial through no fault of your own.
- Depending on the services involved, there may be rivalries or bad feelings between them, which is not conducive to effective service delivery.
- Political interference that fears shared services will result in municipal amalgamation and the loss of elected officials, city staff and managers. Or concerns that one of the shared services will bear more

financial costs than the other at the expense of the taxpayers and it becomes an election issue.

- Demand level changes as growth occurs, perhaps disproportionately that may have a negative affect and prove non-sustainable.
- Perception of inequity, perception of hidden agenda(s).
- Lack of coverage locally to meet mandate and City service provision levels in event of responding out-of-district. Perceived requirement to respond versus actual right-to-refuse if necessary.

The survey culminated with an opportunity for the respondents to provide general comments or concerns related to consolidation/amalgamation or shared services/inter-municipal cooperation between fire departments from different jurisdictions, or personal experiences that they would like to share. The following comments were received from the respondents:

- The departments in [location deleted] are working hard on shared services such as specialized services, high and low angle rescue, crane rescue, Auto X, Hazmat, as many departments can't afford it, so we are looking at all fire department paying into one pot to support the service from one or two departments.
- Based on my experience in this department shared services could be a benefit financially and also provide the general public with a better level of response and allow us to be fiscally responsible. Purchasing items together obviously allows for savings. Joint training enhances relationships. Deciding roles and responsibilities always proves to be a



challenge. Who will be in charge and why? Creating new job classifications, etc.

- Regional delivery of fire services is a cost-effective model that has significant benefits to members [location deleted] of the service. Departments are able to provide a higher level of service, with consistent apparatus, training and equipment to areas that otherwise would not be able to provide or receive these services.
- There are two separate issues here. One is “functional consolidation,” not necessary consolidation/amalgamation. Functional consolidation allows each jurisdiction the ability to manage their department resources (staff, equipment, budgets, etc.) under agreed upon terms. This still provides the autonomy that many political forces require, yet has the advantage of providing a much more flexible dynamic service provision to the general region of coverage. The second issue is “shared services,” which can be categorized into specialized services such as HazMat, HUSAR, Fire Investigations, Technical Rescue, Water Rescue, etc. As these services can be expensive and time-consuming for departments, there is the potential for cost savings and efficiencies to all departments. I do see these proposals as having great benefit to the region and the fire service in the future.
- The fire service needs to move in this direction as our services are becoming more and more expensive and our citizens cannot afford additional taxes.

- We have departments [location deleted] that have automatic aid agreements. This has resulted in a few observations. The volunteers will not respond, in depth, like they used to, to calls in the early hours, as the career hall will be showing up and taking over the scene. This has led to smaller response numbers and slow response times, depending on where the fire is. This has also caused tension in the volunteer ranks. The career department got rid of their volunteers years ago, stating that they were not needed. The agreement was put in place by the Chiefs without the knowledge of the members, causing more friction. There are good points about shared services, but they need to be fully examined before the agreements are signed, and there needs to be clearly defined roles and outcomes that the hall is looking for, for the members, before entering such agreements.
- We currently have two (2) Fire Service Agreements in place in which we respond to fires and first responder emergencies to [location deleted]. This is not shared service as we are the sole provider. The [location deleted] has a volunteer fire department but they do not respond to areas that we respond to on [location deleted].
- The [location deleted] model appears to be working well, but without some sort of written documentation the stability of this alliance is fragile as it is based on existing personalities of the fire chiefs, fire locals, city managers, elected officials and the whim of the taxpayers.

- I am in favour of a shared services model for fire service as long as there is equity in the sharing of the costs of those services.
- I do not have fire department experience with regards to your question. However, I have observed and worked in other organizations (municipalities as well as emergency services), which had been amalgamated with the intent of cost savings and improved efficiency. Neither was realized in the short, medium, and long term (out of 15 years). Theoretically consolidation/amalgamation should work, but the reasons it did not were related to conflicting organizational cultures, resistance to change, a lack of buy in by senior management and leadership failure. In 45 years of work experience culminating in senior leader positions, rarely did I work with or meet people motivated by altruism or a real desire to save tax dollars. Rather, many people are motivated by money, personal gain, prestige and power, and others need to feel safe and secure in their environment and future. Amalgamation and consolidation threaten these drivers. Resistance to change lasts employment generations as the 'old ones' pass on their displeasure to the 'young ones'. A 47 year old example is at the link [https://en.wikipedia.org/wiki/Unification\\_of\\_the\\_Canadian\\_Armed\\_Forces](https://en.wikipedia.org/wiki/Unification_of_the_Canadian_Armed_Forces) and young ones who never experienced non-amalgamation are still bitching about in blogs. In my opinion, for it to work the individuals within the organization need to see themselves benefitting from the move. Or, you start a new organization.

- With ever increasing demands for service, and the realization that fire calls are decreasing while medical calls are increasing, it is important to explore more economical and inventive means of providing the same services over a broader landscape.
- The future of the fire services is in shared services and in some cases amalgamation of services. In my community we have had an auto aid agreement for several years that provides for our career department and our neighbouring volunteer departments to co-respond into each other's area automatically. We are all the better for it.
- Regional District provided fire services are required to have separate budgets for their capital and operational costs. Amalgamation would only work if the various tax rates were the same at the outset, or some service areas would see an increase in tax levy (or decrease) with no appreciable change in services delivered. As an example, I have one fire service that requires a tax levy of \$.50 per \$1000 of assessed value, and another that requires \$1.25 per \$1000. Rationalizing this difference to the taxpayer would be very difficult. Having said that: the [location deleted] did accomplish amalgamation of its fire services based on a 2009 report by [consultant deleted].
- It should have been widely incorporated within the Metro Regions decades ago but still does not really exist today. Tragic!!

The data represented here was collected from approximately 6.7% of the survey group. Those who completed the survey represented fire departments

that employ approximately 28% of the career fire fighters in the province (the number of volunteer members is not available). Respondents were from throughout the entire province. In whole, the data should be considered as a relative representation of the survey group.

The qualitative feedback from the participants should be considered as a valuable tool when planning such a change in service provision, as the opinions represent a variety of expert experiences from the survey participants. The knowledge gained from the survey results is a sound starting point when considering an environmental scan of the impact that such a change could have in an organization. Many strengths, weaknesses, opportunities and threats to success have been identified from within a variety of fire organizations lending invaluable experience to decision making and planning. Strategic planning methods and change management tools and techniques could prove advantageous when working to shore up weaknesses and eliminate threats to a successful program change.

### **Research Methodology**

The research methodology was both qualitative and quantitative. Much of the research methodology utilized in the literature reviews had its basis in empirical research tools, such as interviews, surveys and/or observations. It was noted in numerous papers that quantitative research on this topic is difficult to achieve as different organizations employ different methods of data collection,

and the requirements to report information does not necessarily receive a similar interpretation across each organization. For example, not all fire departments report financial or measurement of efficiency numbers for fire prevention irrespective of the entire department, or even within the functional duties of fire inspections, public education, plan review, and fire investigations.

The survey of the FCABC member fire departments was designed to provide qualitative and quantitative data relative to the questions. Many of the topics included an open-ended question to provide respondents with the opportunity to share their opinions, supporting the empirical research, and providing more depth to the analysis of the potential to realize economies of scale in the fire service.

## **CHAPTER FOUR – FINDINGS**

### **Study Findings**

#### ***Consolidation/Amalgamation***

The literature review does not support that amalgamations and the creation of big cities automatically result in economies of scale. The amalgamation of Toronto did not achieve the provincial government's objective of cost savings. Rather than resulting in a large jurisdiction that would be financially and technically capable of providing economies of scale, instead, it resulted in higher spending, and service delivery issues. The Toronto example also portrays a citizen disconnect from government. Parallel findings also argue against single tier authority in England and Wales, where economies of scale were not realized.

Throughout this research, the same evidence is represented in the United States, Australia, and many other countries.

There is resounding support that cost savings of amalgamations are disproven, and that smaller flexible jurisdictions can deliver services at a lower cost. However, the research described that the amalgamation of Abbotsford and Matsqui was successful, but not because of a desire to reduced costs; it was successful because it united two communities that had a lot in common.

Throughout the research there is support for finding innovate ways for achieving economies of scale in service provision. Alternatives to consolidation/amalgamation could be inter-municipal agreements, revenue sharing, two-tier systems, one-tier-plus systems, and community sub-units.

### ***Shared Services/Inter-Municipal Cooperation***

Throughout the research it is recognized that residents of neighbouring municipalities have common problems and needs, and that those are not defined by a municipal boundary. There is support for polycentric competitive structures that thrive with flexibility on various scales, such as the restructuring in North America and the resulting concept of city-region models. There is recognition that second-tier government services as well as inter-municipal cooperation could result in efficiency, equity, and support for civic voice.

There is resounding support in the literature that “big government” does not guarantee efficiencies and economies of scale. There is recognition of successful cooperation being influenced by strategic factors, process factors, and attitudinal factors. The research repeats the perspective that cooperation and collaboration

amongst local governments doesn't require a change in government structure, and that efficiencies and economies of scale are recognized for various service provisions, at varying sizes of population. With this consideration, supported by careful analysis of statistical data, inter-municipal cooperation could take advantage of "cherry picking" services. However, a challenge exists with determining and comparing the current cost of service, as many municipalities may not account for service costs by functional area, or in the same manner as their neighbouring municipality.

The literature review provides theoretical support for engaging in inter-municipal cooperation for specific programs that should have success at achieving economies of scale among other benefits. It was recognized that not every effort was intended for the purpose of economies of scale. Sometimes it was simply to provide a service that a municipality was unable to provide, or, to provide that service across elastic borders. Regardless of the intent, there is a strong need for the all parties to have a common understanding of the arrangement.

### ***Legislation***

Local governments have the power to consult, plan, and partner with other governments to provide services to their communities. The services may be provided solely or jointly in an effort to achieve economies of scale. Provincial legislation does not require a community to have a fire department. However, if a local government provides this service, they are responsible for evaluating the needs of their citizens, providing the necessary resources as well as identifying



the capabilities of their fire department. Not only is the Local Government responsible for addressing community services, the legislative framework in British Columbia supports local government for innovative service delivery, as well as, developing partnerships and cooperative arrangements.

### ***Survey/Questionnaire***

The survey respondents provided quantitative data and qualitative feedback. They have described that there are strengths and weaknesses for both consolidated/amalgamated fire services and for shared services/inter-municipal cooperation. These comments can be taken as constructive opinion when considering a change in service provision. There are strong supportive comments for considering service changes through both venues.

## **CHAPTER FIVE – STRATEGIC PLANNING**

There have been successes reported as part of the shared services arrangement that began on the North Shore in January 2011. Although consolidated and cooperative efforts are often undertaken to recognize cost savings, the successes in this arrangement have not been attributed to cost savings through economies of scale. Fire department and municipal management both recognized efficiencies of service provision as the main benefits. However, in spite of this, the theoretical research on the subject of inter-municipal cooperation supports that there are a number of municipal service areas that can and do benefit from cost savings for shared service arrangement—functional services within the fire department have the potential to recognize both efficiencies and cost savings through economies of scale.

Strategic thinking is a conceptual tool which is part of a powerful planning process that can enable an organization to not only gain success from operational planning but to take advantage of the power of analytical thinking. Wallace (2006) states, “If a fire department takes full advantage of the powers of strategic thinking, the process can help its members do the following:

- Think strategically and develop effective strategies;
- Clarify future directions;
- Establish priorities;
- Make decisions in light of future considerations;
- Develop a coherent and defensible basis for decision making;
- Exercise maximum discretion in those areas under departmental control;
- Make decisions across levels and functions;
- Solve major departmental problems;
- Improve overall organizational performance;
- Deal effectively with rapidly changing circumstances; and
- Build teamwork and expertise” (Wallace, 2006, Page 7).

Based on the research, planning for inter-municipal cooperation for specific services is supported. The strength of success in these types of programs lies in the planning process, including a diverse group of stakeholders and communication. Without the capacity to recognize definitive goals, interpret a baseline to use to begin measurement, and determine which measurement tools best correlate with industry recognized standards, it would be difficult to achieve

success, or determine the success of a program with regards to economies of scale.

Wigle (1998) provides a literature review of eight publications from the ICURR library on the topic of performance measurement and program delivery. The Wigle literature review provides a detail of selection criteria for performance measures, along with implementation plans, and a seven-step public sector benchmarking process that could be used as a reference document for moving ahead with a service change program.

McDavid and Hawthorn (2006) speak to the importance of program evaluation. They provide a structured process to inform the planning, designing, implementation, and assessment steps of a program. Their perspective is that there is strength in constructing ways of providing “defensible information to stakeholders as they assess whether and how a program accomplished its intended outcomes” (McDavid and Hawthorn, 2006, Page 3). A strong emphasis is placed on integrating program evaluation and performance measurement. Supporting this, Bremner (2012) considers the barriers that impeded the functional consolidation of training on the North Shore. The most frequent impeding factors were fear on the part of the stakeholder and failure with inter-agency communication and planning (Bremner, 2012, Page 37).

## **CHAPTER SIX - RECOMMENDATIONS**

The intent of this research is to determine if the body of literature together with subject matter expert opinions on this subject would support shared services/inter-municipal cooperation as a means of achieving efficiencies and

cost savings through economies of scale. There is resounding support throughout the research, as well as the survey results, that this is an achievable goal. The other direction of this research was to determine if this type of an arrangement could achieve economies of scale if applied within the functional services of fire prevention. This research provided a strong body of support that there are advantages to this type of service arrangement in the fire service, and that this could apply to some or all service areas. Fire prevention services should be included in this conclusion. However, it is important to note that the same potential may not exist in all functional service areas.

Cost and efficiency analysis as well as inter-agency strategic planning should be incorporated into these types of changes to determine whether the potential exists to recognize economies of scale in fire prevention services. However, it should also be recognized that the potential exists to realize combined benefits outside of efficiencies and cost savings including ease of access for citizens through a common contact point, aligning regulations across elastic boundaries (fire bylaws), sharing of staff expertise, and additional depth to service provision (larger staff pool).

### **Recommendation #1 – Further Investigation**

Conduct an in-depth cost and efficiency analysis of the services provided by the three fire prevention offices on the North Shore in order to determine the potential for realizing economies of scale in the functional areas of the fire prevention services: fire inspections, public education, plans review, and fire investigations. Suggest including:

- Break down by municipality, by individual functions provided by each division, by statistical production numbers, and by comparing costs of services per household; and
- References of measurement tools for efficiency in terms of industry best practices.

The result of this analysis would provide a sound basis for decision making on whether to move forward with planning a tri-municipal fire prevention program, the sharing of one or more functional areas, or not at all.

### **Recommendation #2 – Planning**

Develop a strategic plan for moving ahead with a tri-municipal fire prevention program or sharing of one or more functional areas. Additionally, consider the NSEMO model and the additional resources provided with this research (Appendix D). The following steps are reflective of many strategic planning texts including Wallace (2006):

- Form a diverse planning group including both internal and external stakeholders.
- Develop a clear terms of reference that includes a leader/champion, defined team roles, a communication plan, and an outline of the planning cycle.
- Create a shared vision statement that reflects the ideal future.
- Create a mission statement that is clear and concisely declares the objectives.

- Create a philosophy of operations that is achievable, inspiring and easy to communicate.
- Create value statements that identify the fundamental values that provide an anchor for the organizational service.
- Perform an environmental scan to identify the strengths and weaknesses of the internal environment and the challenges and opportunities of the external environment.
- Develop strategic issues and strategic goals for an action plan.

### **Recommendation #3 – Implementation**

Communicate the action plan to all affected. Provide avenues for 360 degree feedback. Implement the action plan. Recognize early successes. Plan iteratively for a cyclical review.

## **CHAPTER SEVEN – SUMMARY**

### **Lessons Learned**

Undertaking a successful inter-municipal cooperative service arrangement can be accomplished. Success of any program implementation requires evaluation, planning, and measurement. Having clear objectives, effective strategies, aligned management systems, performance measurement and reporting, good communication tools, and real consequences result in a visible public sector management process (McDavid and Hawthorn, 2006, Page 7). Employing strategic thinking in the planning process should include change management tools and techniques, and consider the unique culture of the organization.

### **Research Caveats**

There is an abundance of literature available on the topic of amalgamation and inter-municipal cooperation. My selection criteria for the literature review considered efforts to restrict multiple papers by the same author, to choose papers that provided some diversity of focus area, to search for papers that were supported with quantifiable data, and to represent findings from Canada, the United States and abroad. Much of the literature focused on case reviews. As such, there is a noticeable lack of statistical data in the literature reviews, and thus the literature review on its own should not be viewed as a sole tool to quantifiably justify decision making.

Questionnaire distribution was gratefully achieved with the assistance of the FCABC. The questionnaire was designed to gather quantitative data, as well as, to provide the opportunity for opinions and sharing of experiences. The data that was supplied is unsubstantiated and may be considered subjective based on the participants' comprehension of terminology. There is the potential that the low participation rate of respondents could have affected the data sets that are present in this report.

### **Future Directions**

Researchers and future students that wish to continue forward on the topic of shared services and inter-municipal cooperation could consider the value that quantifiable data would provide to decisions makers, such as, through a research paper that provided statistical evidence of efficiencies and economies of scale. As well, deeper research on the affect that these types of service changes have

on staff, the local unions, and the public could provide decision makers with the tools to circumvent employee resistance and citizen complaints.

### **Change Management**

There are many texts and scholarly articles on the study of change management. “People are inherently resistant to change” (Carnall, 1990, Page 3). Carnall discusses that even strategic change can be challenged by key stakeholders, and that it is important to recognize that not all resistance is a resistance to change. Strategic thinking should allow for recognition of a “resistance to uncertainty” resulting more from the process than from the actual change. In the Carnall text the author relates challenges for change, theories of change, change management techniques, themes and issues, and the strength in approaching change strategically.

Bridges (1991) confers that “change is situational” and that “transition on the other hand is psychological” (Page 3). In his text *Managing Transitions* he asserts that “it isn’t the changes that do you in” (Page 3) and that success can be realized by helping people through letting go of the old identity and developing the new identity. The tools and techniques vary amongst authors, but the resounding story begins with strategically planning the process, involving stakeholders, getting buy-in, employing two-way communication, and reviewing and revising the plan iteratively.

### **Fire Department Culture**

All organizations have a culture unique to themselves, and the fire department is no exception. Carnall (1990) defines organizational culture as “the



attitudes, values, beliefs, norms and customs which distinguish an organization from another” and that “organizational culture is intangible and difficult to measure” (Page 308). A number of “components are provided as defining organization culture:

- Organization paradigm including an organization mission and values;
- Control systems that are in place to monitor performance and behaviour;
- Organization structure including reporting hierarchies and work flow;
- Power structures of decision making and influence;
- Symbols that differentiate people such as office allocation, car parking and other tangible and intangible means;
- Rituals and routines such as meetings, reports, budgets, and review processes; and
- Stories and myths that convey messages about what is important and valued in an organization” (Page 309).

“While not denying that organizations are cultural entities, it ought to be noted that the underlying consequences of these being such cultural assumptions could be to stifle dissent and limit innovation” (Carnall, 1990, Page 309). Statements such as “it has always been done this way” and the assumption that one must “assimilate” resound through fire department culture.

It is an often-used statement that in the fire service we are one hundred years of service unaffected by change—or even two hundred, depending on your organization. I choose to recognize this as a positive statement that reflects the dedication to service that the many career and volunteer men and women of the

fire service provide to the citizens they care for and serve every day. Yet, this pride of service should not diminish our ability to creatively adapt and to respond to the changing needs of our citizens and the communities that we service. Instead of limiting ourselves to doing it “the way it has always been done,” let’s employ innovative strategic thinking and be part of a continuous cycle of improved service. Planning and providing service improvements through economies of scale will facilitate the lofty expectation of our communities and should be part of the strategic planning process of every fire service. We can achieve these successes through thoughtful analysis and recognition of where we are, through a shared realization of goals for where we want to be, and by employing a common set of objectives and strategies that guide our actions across elastic community borders to achieve our goals. Let’s use our egos to iteratively plan how we can accomplish service improvements and enhancements together!

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## APPENDIX A – COVER LETTER FOR SURVEY

*Haida Siegmann*

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July 23, 2015

Attention: Fire Chief – Fire Chief's Association of BC

Dear Chief:

Through your professional organization, I am respectfully requesting assistance from the member Fire Departments of the Fire Chiefs Association of BC (FCABC) to support a research project that I am undertaking. I would like to invite the Fire Chiefs, as authorities of their fire departments, to be part of a research questionnaire. This questionnaire is part of my research paper, which is a requirement for my undergraduate degree for the Bachelors in Public Safety Administration through the Justice Institute of British Columbia (JIBC). I would like to ask for your assistance in completing the attached questionnaire.

The topic of my research paper is "Inter Municipal Cooperation – Fire Services". The purpose of the paper is to relate findings from a literature review, along with the results of this questionnaire, to the capacity to provide efficiencies and economies of scale to consolidated and cooperative efforts for service provision in the Fire Services. This compiled qualitative and quantitative research should support good decision making related to jurisdictional service provision changes in the future. Permission to conduct this research, along with my credentials can be verified by contacting Greg Anderson, Dean of Research at [appliedresearch@jibc.ca](mailto:appliedresearch@jibc.ca).

**All completed questionnaires and results are confidential—no published results will be attributable to any individual or organization.** As per JIBC policy, the results of the survey will be maintained on a locked computer, and will be securely maintained and then destroyed after 7 years. Please note that you are under no obligation to complete this questionnaire or participate in the research. You can withdraw from the study at any time and your results will be withdrawn from the study.

It is important to my project that this questionnaire be completed and returned by email to [haidapop@hotmail.com](mailto:haidapop@hotmail.com) **before August 15, 2015**. The form should take 5-15 minutes to complete. It is an active form. If you would prefer a paper copy of the questionnaire please contact me, and I will fax or email a copy. Please note that the questionnaire includes a section where you can indicate if you would like a copy of the completed paper emailed to you.

Thank you in advance for your assistance. If you have any questions please feel free to contact me on my cell phone or by email.

Best regards,



Haida Siegmann

## APPENDIX B – SURVEY FOR FIRE CHIEFS’ ASSOCIATION OF BC

Haida Siegmann - Student  
JIBC – Bachelors in Public Safety Administration

**Research Questionnaire**  
Revised: July 20, 2015

### **INTRODUCTION**

I would like to invite you, as an authority of your fire department, to be part of a research questionnaire that I am conducting. This questionnaire is part of the requirement for my research paper for the Bachelors in Public Safety Administration through the Justice Institute of British Columbia (JIBC).

The topic of my research paper is “Inter Municipal Cooperation – Fire Services”. The purpose of the paper is to relate findings from a literature review, along with the results of this questionnaire, to the capacity to provide efficiencies and economies of scale to consolidated and cooperative efforts for service provision in the Fire Services. This compiled qualitative and quantitative research should support good decision making related to jurisdictional service provision changes in the future. Permission to conduct this research, along with my credentials can be verified by contacting Greg Anderson, Dean of Research at [appliedresearch@jibc.ca](mailto:appliedresearch@jibc.ca).

Please note that you are under no obligation to complete this questionnaire or participate in the research. You can withdraw from the study at any time and your results will be withdrawn from the study. By completing and submitting this questionnaire you are indicating that you are giving informed consent to participate in this study.

### **DIRECTIONS**

Please complete this form and return by email to [haidapop@hotmail.com](mailto:haidapop@hotmail.com) **before August 15, 2015** for your results to be included in this province wide compilation of statistics. **All completed questionnaires and results are confidential—no published results will be attributable to any individual or organization.** As per JIBC policy, the results of the survey will be maintained on a locked computer, and will be securely maintained and then destroyed after 7 years. Please note that you are under no obligation to complete this questionnaire or participate in the research. You can withdraw from the study at any time and your results will be withdrawn from the study.

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Please return completed questionnaires to: [haidapop@hotmail.com](mailto:haidapop@hotmail.com) **before July 31, 2015.**

Haida Siegmann - Student  
JIBC – Bachelors in Public Safety Administration

**Research Questionnaire**  
Revised: July 20, 2015

This **CONFIDENTIAL** form should take 5-10 minutes to complete. This is an active form. If you would like a paper copy of the form faxed or emailed to you please email [haidapop@hotmail.com](mailto:haidapop@hotmail.com).

*Directions to fill in this form:*

- To enter text, click where indicated and type your comment.
- To fill in a tick box, click on the box and hit the space bar on your keyboard.

### **GENERAL QUESTIONS**

1. **OPTIONAL QUESTION** - What is the name of your Fire Department? [Click here to enter text.](#)
2. Is your Fire Department – Career ☐ or Volunteer ☐ Combined ☐
3. Is your Fire Department:
  - Municipal ☐
  - Regional ☐
  - First Nations ☐
  - Other ☐ If other, please describe: [Click here to enter text.](#)
4. How many full-time career staff do you employ ? [Click here to enter text.](#)
5. How many volunteer/paid on-call staff do you employ? [Click here to enter text.](#)
6. What is the area in square kilometers that your fire department is responsible for? [Click here to enter text.](#)
7. Do you have a mutual aid agreement with a neighbouring jurisdiction? Yes ☐ No ☐
8. Do you have an automatic aid agreement with a neighbouring jurisdiction? Yes ☐ No ☐

### **CONSOLIDATION/AMALGAMATION QUESTIONS**

9. Are you a consolidated/amalgamated fire service from multiple jurisdictions? Yes ☐ No ☐ If yes, in your opinion, would you say that consolidation/amalgamation has resulted in economies of scale?  
Yes ☐ No ☐ Select all that apply:
  - Faster response ☐
  - Cost savings ☐
  - Increased service levels ☐ for example: [Click here to enter text.](#)

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Please return completed questionnaires to: [haidapop@hotmail.com](mailto:haidapop@hotmail.com) before **July 31, 2015**.



Haida Siegmann - Student  
JIBC – Bachelors in Public Safety Administration

**Research Questionnaire**  
Revised: July 20, 2015

- Additional service levels ☐ for example: [Click here to enter text.](#)
  - Other ☐ for example: [Click here to enter text.](#)
10. In your opinion, what are the benefits and/or strengths to consolidation/amalgamation of fire services: [Click here to enter text.](#)
11. In your opinion, what are the risks and/or threats to consolidation/amalgamation of fire services: [Click here to enter text.](#)

### **SHARED SERVICES/INTER MUNICIPAL COOPERATION QUESTIONS**

12. Do you perform shared services/inter municipal cooperation with a neighbouring jurisdiction? Yes ☐ No ☐ If yes, what services do you share: [Click here to enter text.](#)
- In your opinion, would you say that this shared services/inter municipal cooperation has resulted in economies of scale? Yes ☐ No ☐ If yes, select all that apply:
  - Faster response ☐
  - Cost savings ☐
  - Increased service levels ☐ for example: [Click here to enter text.](#)
  - Additional service levels ☐ for example: [Click here to enter text.](#)
  - Other ☐ for example: [Click here to enter text.](#)
13. If yes, is this a formal contract agreement: Yes ☐ No ☐ In your opinion, what are the strengths and weaknesses to your formal/informal agreement? [Click here to enter text.](#)
14. In your opinion, what are the benefits and/or strengths to shared services/inter municipal cooperation of fire services: [Click here to enter text.](#)
15. In your opinion, what are the risks and/or threats to shared services/inter municipal cooperation of fire services: [Click here to enter text.](#)

### **CLOSING COMMENTS**

16. Do you have any general comments or concerns related to consolidation/amalgamation or shared services/inter municipal cooperation between fire departments from different jurisdictions, or personal experiences that you would like to share? [Click here to enter text.](#)

Thank you! I appreciate you taking the time to complete this form. If you have any supporting documentation that you would like me to consider in my research paper, please feel free to attach it to

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Please return completed questionnaires to: [haidapop@hotmail.com](mailto:haidapop@hotmail.com) before July 31, 2015.

Haida Siegmann - Student  
JIBC – Bachelors in Public Safety Administration

**Research Questionnaire**

Revised: July 20, 2015

the return email. If you would like a copy of the completed research paper indicate here ☐, and  
provide your return email address here [Click here to enter text.](#)

Once again, thank you for supporting this research effort.

Haida Siegmann

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Please return completed questionnaires to: [haidapop@hotmail.com](mailto:haidapop@hotmail.com) before July 31, 2015.

## APPENDIX C – SURVEY RESULTS

### INTER MUNICIPAL COOPERATION - FIRE SERVICES QUESTIONNAIRE DATED JULY 20, 2015 RESULTS FROM 22 COMPLETED SURVEY QUESTIONNAIRES

Survey #	Career	Question #2 Volunteer	Combined	Municipal	Regional	Question 3 Fire Nations Other	Question 4 F/T	Question 5 Vol/POC	Question 6 Km2	Question 7 M.A. Agmt	Question 8 Auto Aid	Cons/Amalg	E.O.S.	Faster	Question 9 Cost Sav	Inc Svc	Addtl Svc	Other	Coop	E.O.S.	Faster	Question 12 Cost Sav	Inc Svc	Addtl Svc	Other	Question 13 Contract	
001		0	1	0	1	0	0	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
002		0	0	1	1	0	0	7	20	15	1	0	0	0	0	0	0	0	0	1	1	0	1	0	0	1	
003		1	0	0	1	0	0	20	0	61.5	1	1	0	1	0	1	0	1	0	0	1	0	0	0	0	9	
004		0	0	1	0	1	0	16	100	1196	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	1	
005		0	0	1	1	0	0	4	40	43	1	1	0	0	0	0	0	0	0	1	1	0	1	1	0	1	
006		0	0	1	1	0	0	3	25	15	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	9	
007		0	0	1	0	0	0	1	45	4	1	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	
008		1	0	0	1	0	0	228	0	168	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0	9	
009		0	1	0	1	0	0	2	24	75	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
010		0	0	1	1	0	0	5	45	24	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
011		0	1	0	0	0	0	0.5	28	30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
012		0	0	1	1	0	0	37	27	42.1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
013		0	1	0	1	0	0	2	10	1600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
014		1	0	0	1	0	0	166	12	140	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	
015		0	0	1	1	0	0	46	20	26	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
016		0	1	0	0	1	0	0	24	100	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
017		1	0	0	1	0	0	93	0	16	1	0	0	1	1	1	1	0	1	0	0	0	0	0	0	9	
018		0	0	1	1	0	0	402	80	317	1	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	
019		1	0	0	0	0	0	23	0	25	0	1	0	0	0	0	0	0	0	1	1	1	1	0	0	1	
020		0	1	0	0	1	0	2	120	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	9	
021		0	1	0	1	0	0	1	20	40	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	
022		0	0	1	1	0	0	6	30	83	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	
		5	7	10	17	3	2	1064.5	678	4022.6	20	9	2	4	3	3	3	3	0	14	8	5	6	7	5	16=1 5=9	
				Municipal	Regional	First Nations Other						0.90909091	0.40909091	0.09090909	0.18181818					0.63636364	0.36363636					3=0	
LEGEND - 0 Equals NO; 1 Equals YES; 9 Equals No Answer Given																											

LEGEND - 0 Equals NO; 1 Equals YES; 9 Equals No Answer Given

326 Departments were polled and 22 responded = 0.06748466 Percent



## APPENDIX D – ADDITIONAL RESOURCES

Municipal Capacity Development Program (January 2010). A Guide to Municipal Cooperation: Succeeding in Regional Partnerships.

<http://municipalcapacity.ca/+pub/document/resource-materials/A%20Guide%20to%20Municipal%20Cooperation%20-%20Succeeding%20in%20Regional%20Partnerships%20-%20Jan.%202012.pdf>

This is a guide to municipal cooperation for service provision in Saskatchewan. It focuses on collaborative process, structure of inter-municipal working groups, and maintaining cooperative relationships. It includes information on barriers to working collectively, stakeholder identification, group formation and development, communications strategies, dispute resolution, community action and regional planning, developing inter-municipal agreements, as well as, budgets and accounting (Page 2). Inter-municipal and regional cooperation is seen as an effective tool for success in service provision and building effective and long-term cooperation for Saskatchewan.

Alberta Municipal Affairs (2004). Communities Strengthened Through Partnership. Regional Partnerships Initiative.

<http://municipalcapacity.ca/+pub/document/resource-materials/commstrengthpartners.pdf>

This is a regional cooperation program designed to assist municipalities with exploring and developing partnerships that benefit the community. This

initiative provides grant funding to promote and facilitate regional cooperation between Alberta's municipalities. The guidelines document provides a vision and framework for "communities strengthen through partnership" by "encouraging innovative partnerships that enhance local service delivery and reduce costs" (Page 3). The initiative supports municipalities to: share service delivery, expand cost-effective services, develop regional forums, focus on regions, strengthen municipalities, improve quality of life, as well as, plan for growth (Page 4). The process, requirements, and deadlines are provided.

State of New York (November 2003). Local Government Management Guide: Inter-municipal Cooperation. Office of the State Comptroller, Division of Local Government and School Accountability.

<http://www.osc.state.ny.us/localgov/pubs/lgmng/intermunicipal.pdf>

This is a guide of recommended practices for a successful cooperation agreement between local governments. The guide introduces that "inter-municipal cooperation can help municipalities increase effectiveness and efficiency in the delivery of services" and that "they should seek out the best way to provide the services needed by their communities" (Page 1). It provides information on legal authority, getting started, conducting a cooperative study, keeping enthusiasm going, identifying stakeholders, communications, reporting, developing a mission statement, as well as, support and references.

Council of Europe (2010). Toolkit Manual: Inter-municipal Cooperation. Local Government and Public Service Reform Initiative. UNDP, Council of Europe.  
[http://www.municipal-cooperation.org/images/4/4c/IMC\\_Toolkit\\_Manual.pdf](http://www.municipal-cooperation.org/images/4/4c/IMC_Toolkit_Manual.pdf)

This reference document defines and justifies inter-municipal cooperation. It can be used as a tool for understanding and developing inter-municipal cooperation. It discusses obstacles, legal framework, incentives, creating a culture, initiating steps, financing, accountability, and implementation.