Cooperative Services Feasibility Study

June 2007

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Executive Summary

This report details the study of fire protection and emergency medical services in the core areas of Kitsap County. Specifically, the study involves three separate fire service agencies located in the central and south portions of Kitsap County: The City of Bremerton Fire Department (BFD), Central Kitsap Fire & Rescue (CKFR), and South Kitsap Fire & Rescue (SKFR).

Scope

This study follows the Scope of Work as outlined by the ESCi contract with the Kitsap County fire agencies. The report surveys management and operational components of each of the departments, focusing on the identification of organizational strategies likely to result in improved service to the public. The study also analyzes system improvements and cost reduction strategies derived from shared services or from a complete integration of the respective fire agencies. This study also considers partnership strategies for the three jurisdictions and points out potential cooperative strategies with other agencies that may benefit the clients.

Critical Issues

Each agency faces challenges in the performance of the emergency mission. In the past, the agencies addressed critical issues and overcame difficulties on their own. The economy and geography of Kitsap County can result in interdependence within this emergency services system. ESCi's study of the Kitsap County area fire agencies brings to focus certain critical issues that influence the level and efficiency of emergency service. The most important critical issues are:

Fire Department Administrative/Support Functions

A fire chief heads each department. The chief is generally responsible for oversight of the agency and for the development of rules, procedures, and plans crucial to effective and efficient service delivery in that jurisdiction. Each department also devotes the time of other staff members to assist the chief in administrative and support services necessary to keep an agency running. The fire departments are faced with emerging challenges, mandates, and safety regulations; and all acknowledge the challenge of maintaining effective fire protection services in the future given the demands of regional property development, increasing regulation, and the limitation of fiscal resources. In our opinion, the administrative and support staff within each department duplicates some efforts of the other agencies participating in this study.

Funding

All three departments operate within the constraints of limited financial resources. Both fire districts utilize a combination of tax and non-tax revenue sources to fund fire department services. However, the primary source of revenue is from taxation of real property. Funding has been reduced by restrictive tax initiatives enacted in the state of Washington. The fire departments must manage budgetary requirements at or below the maximum allocations approved by their elected officials and capped by legislative limits.

The current combined fire department budgets for the Kitsap County fire agencies in this project for 2006 total $29,223,565: Of the total combined budget, 24.67 percent was represented by BFD's budget, 34.47 percent was represented by SKFR's budget and 40.85 percent belongs to CKFR. ESCi has projected a modeled cost for a unified fire department based on 2006 budgets. With the potential of combining staff in a number of facilities, re-deploying resources, and combining administrative and support services, there are economies of scale that project into a cost savings benefit from an overall view.

ESCi has also recommended that several administrative, operational and support programs be integrated and centralized. It has been noted that annual reserves for apparatus and equipment replacement programs are currently under-funded. It is critical that all real and projected costs be considered in order to establish a self-sustaining financial revenue stream for a unified fire agency.

Staffing

Since staffing levels directly impact the quality of service and constitute the largest segment of a fire department's budget, this is a central issue in any unification effort. ESCi's findings show all fire departments' ratio of firefighters to citizens is below national, regional, and local comparables. The combined project fire departments have 31 fire stations between them, with varying levels of staffing and different staffing models. SKFR maintains an administrative/support and operations staffing level of 90 full-time equivalents (FTEs) and approximately 52 volunteers. CKFR maintains approximately 87 FTEs and 103 volunteers, while Bremerton provides 58 FTEs for fire department positions. The ratio of administrative positions to operational positions in the three departments ranges from good (CKFR) to significantly below the range of national averages, as in the case of Bremerton.

There is an obvious ratio difference in administrative/support personnel and the operational staff between the project agencies. This is directly relative to those functions provided to a city fire department by its fellow municipal departments and divisions. Contrasting the city model of providing centralized

administrative/support services to its departments and divisions is the fire district model, which must encompass and provide complete administrative and support functions to itself in order to do business.

While the two models of providing fire protection (city vs. fire district) are different, the ability to integrate a city fire agency and a fire district can occur with only moderate impact to existing fire district administrative/support services and measurable benefit to the city. Additionally, CKFR and SKFR have duplication in administrative and support services. From an operational and service delivery perspective, there is duplication of efforts and resources when looking at all three agencies as one. Data indicates that the three departments could unify services and achieve very measurable benefits.[1]

Facilities and Resources

The careful distribution of fire department facilities and deployment of resources is vital to effectively provide a consistent level of service throughout a jurisdiction. Kitsap County, like most other areas of the United States, has located most of its fire stations and deployed most of its resources from a single dimension – that is, they are located irrespective of neighboring fire stations and neighboring resources.

ESCi has recommended the three fire departments implement a regional deployment plan that includes all three fire agencies and an integrated standard of coverage which includes sharing fire stations and maximizing resources for optimal coverage and response performance. The integration of the operational divisions and response criteria could be accommodated with a moderate adjustment to the agencies.

Fire Prevention/Education Program

All three fire departments have established positions to perform fire prevention services. In the case of the SKFR and BFD, they must also accomplish jurisdictional mandates to enforce adopted fire regulations and conduct fire investigations. All three agencies provide public education to their jurisdictions. SKFR and CKFR carry out limited fire investigation activities in their districts. These members work closely with other local agencies in community planning, building construction, and law enforcement in the performance of their duties

Under a full consolidation, the fire prevention divisions would be unified into one division. It is recognized that there are differences in the codes adopted by each jurisdiction. A unified fire prevention division must become aware of differences in regulations and provide proper applications. Since adopted codes and standards are revised every three to five years, the long-term goal would be to adopt the same

[1] Benefits include efficiency, effectiveness, and future cost avoidance.

primary codes and minimize differences. It is further recommended that the public education programs within the three agencies be unified. This would allow for the current activities to continue without major changes and greatly improve a potentially high profile community service.

Partnering Strategies

The partnering strategy recommendations detailed in this report are:

Option 1: Full Integration of BFD, CKFR, and SKFR with reallocation of redundant resources.

ESCi recommends the three agencies establish a goal to pursue a full legal integration that results in a single fire agency. This may be done using several successful governance models provided later in this report.

This process may take several years to complete and may be accomplished through a series of interim unification steps. In this option, numerous fire stations and staffing could be redeployed and resources reallocated to improve unit reliability rates and to provide measurable improvement in overall response performance to the combined 283 square miles of service area. There would be no reduction in workforce in this model. Redistribution of suppression staff should be considered as part of a deployment plan.

Additionally, reduction or elimination of duplication could be experienced through the consolidation and centralization of administrative, support, and technical services. Additional benefits become evident on all levels with the standardization of equipment, supplies, technology and administrative functions.[2]

Option 2: Unification of BFD, CKFR, and SKFR Operational Delivery Services.

If the three agencies do not choose Option w, ESCi recommends that action be taken to unify operational divisions. There is considerable overlap of facilities and resources in the core Kitsap area. A consolidation of these programs would eliminate duplication and provide better response performance across the areas served. If these critical functions are unified successfully, it could become a basis for other joint efforts leading to the full operational or legal unification of the three agencies at a later date.

[2] Reduction in administration and/or support staff could be accomplished through attrition.

Financial Analysis

A projected annual budget for a consolidated fire department as described above has been developed based upon recommendations that project cost savings and cost avoidances while addressing operational gaps in service.

Benchmarks

ESCi has identified a series of benchmarks to aid in the study of the operational and financial outcome of a full legal integration (Option 1). In analyzing each benchmark, ESCi has compared the three agencies as they exist today (2006) with the predicted outcome of the proposal. The first three benchmarks measure elements of fire protection efficiency; the last one measures the cost of service to the community. The benchmarks are:

- Firefighters per $1,000 of assessed value
- Firefighters per 1,000 population
- Distribution of administrative and support jobs
- Cost of service per capita

Findings

The feasibility of a proposed legal unification of fire departments depends on the outcome of a public decision by elected officials and/or the population at large. A proposal for legal merger or unification may present a challenge at the polls unless sufficient improvements in services can be reasonably predicted and/or the unification reduces overall costs to the communities involved. A systematic approach to providing the public with information is also critical.

The analysis of the proposed cost for Option 1 predicts an integrated annual cost per capita of $153.57, which represents an overall savings for the combined organization and a savings to each individual agency when non-taxing revenues are included in the per capita costs. The cooperative service model eliminates redundancies while improving the overall level of service provided.

While a complete financial analysis of Option 2 has not been conducted, it is accurate to assume that a combined operational effort will eliminate current duplication and increase effectiveness without increasing overall cost. The clear benefit would not necessarily be financial in nature but would be an opportunity to narrow current gaps in service and extend improved response performance to a greater area of a large jurisdiction.

Preferred Option

ESCi judges that Option 1 for full integration is feasible. Option 1 is recommended for further consideration. This option would provide:

- A staffing, response, facility, and resource deployment system that provides maximum benefits across the region, reducing existing deficiencies for all three agencies and equalizing or reducing capital costs.

- Predictable service delivery improvements that cannot be accomplished by independent fire departments considering current financial limitations.

- More effectively staffed, centralized, and standardized administration and support systems shared across the region.

This option would require voter support that is possible with extensive education regarding service improvement, future cost avoidance, and eliminated redundancy.

This recommendation has two faces. The first face is that of a historical precedence demonstrated by the unification and integration of Kitsap County fire services for over three decades. In 1964, there were 27 fire agencies in Kitsap County. In 2006, there are six. This provides a clear and purposeful pathway set by the fathers of fire service leadership in Kitsap County to mature and integrate fire and EMS services into a regional model(s).

The second face is conditional, based on the assumption that the three agencies intend to develop uniformity and to maximize efficiency and effectiveness of service delivery at all levels in accordance with the suggested modification recommendations contained in this report. In simplest terms, the integration of the Kitsap fire agencies is based as much on effectiveness of service delivery as it is on financial savings. If the more efficient, less redundant services are not desired or are simply not a priority at this time, implementation may be unwarranted.

Further, ESCi suggests that Option 2, the alternative for functional consolidation of operational divisions, is feasible and is recommended for implementation. This recommendation is also conditional, based on the assumption that the three agencies intend to develop emergency services delivery programs in accordance with recommendations made by ESCi. In simplest terms, the functional consolidation of this program is based on improved services rather than financial savings. Again, if the improved services are not desired or are simply not a priority at this time, implementation may be unwarranted.

The Feasibility of Fire Department Partnership

During the past three decades, fire protection in America has undergone a process of remarkable transformation. Change began in the early 1970s, roughly corresponding with the publication of *America Burning* by The National Commission on Fire Prevention and Control. Fire departments across the nation began to assume a greater role in the protection of citizens from many more hazards than in the past—quickly expanding from fire suppression to greater emphasis on fire prevention, emergency medical service, ambulance transport, hazardous materials, specialized operations, natural disasters, and (in the recent past) Homeland Security. *This was the dawning of the first responder doctrine in the Fire Service in America.*

The process of change continues today, although some fire agencies feel that the progress made is not in the spirit of 1973's American Burning. While many goals of *America Burning* (and of the *Fire Prevention and Control Act* of 1974 that followed) have not materialized, the responsibilities, scope of service, and emergency incidents of community fire departments continue to increase. Urban and suburban expansion have reached unprecedented levels across America, yet laws that limit the funding of public services increasingly restrict emergency services in those same communities. Nearly all such tax limit laws trace their roots to California's Proposition 13, passed by voters in that state in 1978.

Well before the date of *America Burning* and the California tax revolt, private sector businesses recognized the benefit of merger and collaboration as a means to increase efficiency. For years, critics have advised government to *reinvent itself* and to administer programs more like a business. An increasing number of executive fire officials and policymakers now recognize the moral imperative to maximize the efficiency and effectiveness of emergency service resources through a process of strategic cooperation.

Consequently, what was once relatively uncommon in the fire protection industry has become more widespread as fire department leaders react to internal forces promoting maximization of resources and the external drivers (i.e., expanding scope of service, increased populations, rapid community development, and limited capital).

More and more, local fire agencies partner with other jurisdictions to eliminate service duplication and to focus resources on providing essential services. Such strategic alliances between fire protection

agencies began in areas experiencing rapid economic development, primarily surrounding burgeoning West Coast cities like Los Angeles, San Diego, Denver, Seattle, Salt Lake City, and Portland. Now, as the economic development that so characterized large metropolitan centers during the last two decades spreads and external forces act to limit the ability of the once isolated surrounding communities to unilaterally react to the change; the *strategic partnership* of emergency service organizations becomes an alternative more frequently considered by policymakers. Such is the case with the Kitsap County fire agencies involved with this project that are located in the shadow of the Seattle/Tacoma metropolitan area.

There are over 400 fire protection districts and 270 cities and towns in the state of Washington today. In the past ten years, the state of Washington has experienced:

- A remarkable increase in the number of cooperative efforts, consolidations, and fire protection district mergers.

- An increase in the number of cities and fire protection districts developing and improving cooperative services, consolidations and/or mergers and inter-local contractual agreements for emergency services. Examples are: City of Sumner and East Pierce Fire & Rescue; Cities of Auburn, Algona and Pacific; Lewis County Fire District #12 and the City of Centralia.

- A constant pace of cities that have annexed into a fire protection district.

- The creation of a legislative vehicle to form Washington's first Regional Fire Protection Services Authority (RFPSA).

Many factors have led to the increase in these cooperative agreements, mergers, or annexations. These factors include:

- Recent committee studies and state legislation encouraging or providing incentives for cooperative services.

- State and federal grant criteria requires or allows for higher scoring for entities with cooperative or consolidated services.

- Tax limitation initiatives and referendums that have reduced the revenue available to many counties, cities, towns, and special purpose districts, thereby increasing the need to consolidate activities.

- The Growth Management Act and its implementation in Washington counties that requires long-term planning of facilities and operations by counties, cities, towns, and special purpose tax districts.

- The cost of emergency operations; the cost of purchasing emergency apparatus and equipment; the cost of constructing fire station facilities; and the cost of fire suppression equipment, emergency medical and rescue equipment, and clothing have significantly increased.[3]

It is in this climate of ongoing regional change that Emergency Services Consulting inc. (ESCi) was contracted by the two fire districts and the city of Bremerton. The scope of work between the Bremerton Fire Department (BFD), Central Kitsap Fire & Rescue (CKFR), and South Kitsap Fire & Rescue (SKFR) and ESCi specifies that collaborative opportunities be identified and the economic feasibility of the opportunities be impartially judged.

This report details ESCi's findings regarding strategic alliance and partnership opportunities for the City of Bremerton Fire Department, Central Kitsap Fire & Rescue, and South Kitsap Fire & Rescue.

Overview of the Report

ESCi has been privileged to work with three professional fire departments and their staffs. In the course of this study, a great deal of technical information and technical data has been compiled, analyzed, and coalesced into this report. In the spirit of providing this information in a fashion that informs, educates, and provides conclusions to make decisions from a broader spectrum, the project team has authored this document more for the policymakers and citizenry of the city of Bremerton, Central Kitsap Fire & Rescue, and South Kitsap Fire & Rescue. While the tendency at times is for consulting firms to provide a technical brief for the professional staff of the fire agencies, ultimately it is the 'external customers' and policymakers that must grasp what has been compiled in order to make educated and confident decisions based upon the full spectrum of information. It is from that venue that ESCi has chosen to present these findings.

The report begins with a discussion about the city of Bremerton and Kitsap County as they relate to the past, present, and future impact on the emergency services providers. This discussion is followed by a review and comparison of the organizational details of the three Kitsap County fire agencies. Previous reports and findings concerning cooperative initiatives of the three have been reviewed and summarized as a part of this report, and a review of related literature is made. During the evaluation and review of each agency, key stakeholders of the agencies were interviewed to provide local and internal perspective on organizational culture and other significant issues.

[3] Clark and Brian Snure, *Mergers and Consolidations*.

The report includes a description of the two principle types and four subtypes of cooperative initiatives that constitute *strategic restructuring*.[4] Terms and definitions associated with strategic restructuring, as the practice relates to the not-for-profit service industry, are established. Strategic restructuring options specific to BFD, CKFR, and SKFR are identified and baselines for financial analysis are established.

This report includes a financial analysis of the independent agencies and a discussion of the estimated outcome of the identified options. The discussion enables a judgment about the viability of each strategy as it relates to the fire agencies' mission and goals and the estimated effect on the communities served. Lastly, a preferred option is identified and recommendations are made to guide the policy actions necessary for implementation.

During the course of this report, ESCi employs two comparison models by which each agency is measured against its peers. The first model provides a comparative view of organizational and operational elements from a Western (U.S.) Regional perspective of agencies of near identical size and operation. This is conducted through a study ESCi participates in with the National Fire Protection Association and the National Fire Academy.

The second study is a comparison of similar sized fire agencies in the Puget Sound area of Washington. These comparable agencies were selected by the Kitsap County fire agencies and are shown in the following tables.

[4] Amelia Kohm, David La Piana, and Heather Gowdy, Strategic Restructuring, Findings from a Study of Integrations and Alliances Among Nonprofit Social Service and Cultural Organizations in the United States, Chapin Hall, June 2000.

Figure 1: – Comparison of Kitsap County Fire Districts

Agency	Population	Assessed Value	Square Miles	Operating Budget	Operational Personnel	Volunteers	Incidents
Central Kitsap Fire & Rescue (CKFR)	72,000	$6.049 billion	115	$11.937 million	66	103	7123
King Co. Fire District No. 4 (KCFD4)	53,000	$6.1 billion	13	$14.3 million	90	6	8,900
Pierce Co. Fire District No. 5 (PCFD5)	42,000	$5.3 billion	54	$8.4 million	77	60	5,000
Clark Co. Fire District No. 6 (CCFD6)	62,000	$5.1 billion	40	$9.1 million	60	42	5,050
East Pierce Fire & Rescue (EPFR)	60,000	$4.8 billion	50	$9.2 million	66	75	7,455
South Kitsap Fire & Rescue (SKFR)	82,500	$5.346 billion	150	$10.074 million	72	52	9,186

Figure 2: – Comparison of Kitsap County Fire Departments

Agency	Population	Assessed Value	City Budget	Fire Budget	Operational Personnel	Incidents
Bremerton (BFD)	35,580	$2.222 billion	$32.0 million	$7.211 million	49	7,389
Auburn (Aub)	48,135	$5.1 billion	$51.5 million	$9.8 million	71	7,000
Lynnwood (Lyn)	36,450	$3.9 billion	$51.9 million	$9.4 million	60	6,505
Olympia (Oly)	45,430	$4.2 billion	$49.9 million	$9.6 million	82	8,109
Edmonds (Edm)	40,000	$5.1 billion	$31.0 million	$6.5 million	48	5,175
Puyallup (Puy)	36,000	$3.4 billion	$42.3 million	$8.5 million	58	6,200

This report also provides any cooperative effort that will be influenced by outside factors such as the Washington State Ratings Bureau (WSRB), the Center for Public Safety Excellence (CPSE), and the Washington State Growth Management Act.[5]

[5] Formerly the Commission on Fire Accreditation International (CFAI).

Washington State Ratings Bureau

Fair and equitable rating of property insurance requires accurate information about local fire protection. The WSRB collects information on every fire district and fire department in the state of Washington. In addition, WSRB has mapped the location of over 90 percent of the fire hydrants now in use. Through its "Grading Schedule for Municipal Fire Protection," that includes a review of water supply systems, fire hydrant location, and water flow levels, the WSRB provides fire agencies and the communities they serve with ratings information.

The WSRB evaluation of the fire departments and districts covers training, staffing, equipment, maintenance and location of each station. Upon completion of an evaluation, they are able to calculate a Grading or Classification on a scale of 1 to 10. A Class 1 rating represents the very best fire protection that can be provided; a Class 10 rating indicates that most property in that area would be unprotected by fire services or by services that do not meet minimum standards.

The classification or grading of fire departments and districts not only ensures that fire rates reflect the actual protection that a community can expect; it also acts as an incentive to improve or maintain the local fire services capabilities. It helps local authorities plan and budget for those improvements that will assist in improving the rating.

The WSRB rating is important to a community. Many property insurance companies base the fire risk portion of property insurance premiums on the community's WSRB rating. Additional information about WSRB is provided in the appendix of this report.

Center for Public Safety Excellence

We note here that two of the project agencies in this study were among the first in the State of Washington to achieve accreditation through the Center for Public Safety Excellence (CPSE).[6] Those agencies are Central Kitsap Fire & Rescue and South Kitsap Fire & Rescue. This achievement speaks to the level of commitment, excellence, and vision within the organization and its leadership. The CPSE is:

> *…committed to assisting and improving fire and emergency service agencies around the world in achieving organizational and professional excellence through its strategic self-assessment model and accreditation process to provide continuous quality improvement and enhancement of service delivery to the community and the world at large.*

[6] Formerly known as the Commission on Fire Accreditation International.

The CPSE program is a comprehensive self-assessment evaluation verified by an on-site peer assessment team following an accreditation model developed for fire and emergency service organizations. Using this program, fire and EMS providers can improve their level of professionalism while enhancing service delivery. The program is designed to:

- Determine a community's risks and fire safety needs
- Evaluate the performance of the respective fire agency
- Provide a method for continuous improvement

The CPSE accreditation process provides a well-defined, internationally recognized benchmark system used to measure the delivery of fire and emergency services to a community. Additional information about the CPSE is provided in the appendix of this report.

Currently, there are 129 fire agencies in the United States that have been successfully accredited by CPSE – six are fire agencies in Washington: Bellevue Fire Department, Central Kitsap Fire & Rescue, Kent Fire Department, McCord AFB Fire & Rescue, South Kitsap Fire & Rescue, and Woodinville Fire & Rescue.

Washington State Growth Management Act

The GMA (Growth Management Act) was adopted because the Washington State Legislature found that "*uncoordinated and unplanned growth poses a threat to the environment, sustainable economic development, and the quality of life in Washington.*"[7] The GMA was adopted by the Legislature in 1990 as Chapter 36.70A RCW.

The GMA requires state and local governments to manage Washington's growth by identifying and protecting critical areas and natural resource lands, designating urban growth areas (UGAs), and preparing and implementing comprehensive plans through capital investments and development regulations. This approach to growth management is unique among states.

The Washington State GMA further requires counties and cities in Washington to adopt and maintain a comprehensive plan. Under GMA, a comprehensive plan is required to include:

- land use, transportation
- capital facilities
- housing

[7] RCW36.70.

- utility elements

In addition to these elements, cities have added the following elements:

- community design
- human services
- parks
- economic development

Comprehensive plans provide a broad policy framework for land use decision-making, planning for capital facilities, and the creation of development regulations for zoning, subdivisions, and environmental protection codes. A comprehensive plan establishes the principles, goals, objectives, and policies guiding future development in compliance with Chapter 36.70A RCW, the Washington State Growth Management Act.

A comprehensive plan serves as a community's constitution for development and the use of its land. It provides direction for the long-term and short-term and covers multiple subjects. It is a statement of policy identifying the communities: environmental, social, and economic desires, and maps to reflect the stated policies. Comprehensive plans should address public safety services with a defined level of service (LOS).

Nothing will impact public safety services more than an adopted comprehensive plan. Inclusion of public safety services in a comprehensive plan will affect nearly every aspect of how a fire department operates, how it structures operations, risk assessment, places fire stations, capital investments, and staffing. It is the roadmap and trigger for meeting established LOS.

Progressive fire service leaders should actively participate throughout the development of their jurisdiction's comprehensive plan. During the development or updating of a comprehensive plan, a fire department can plan for future risks and impacts versus reacting.

Jurisdictional Profiles

The following section provides the reader an overview of the city of Bremerton and of Kitsap County. It is vital to this report and to the outcomes of the recommendations that information be provided at the *governance* and *jurisdictional* level of both the county and the city in order to establish 'external factors' which are critical to emergency services operations.

City of Bremerton

Bremerton was originally platted by German immigrant turned Seattle entrepreneur William Bremer in 1891. Three years earlier a U.S. Navy commission determined that Point Turner, between the protected waters of Sinclair and Dyes inlets, would be the best site in the Pacific Northwest on which to establish a shipyard. Recognizing the large number of workers such a facility would employ, Bremer and his business partner, Henry Hensel, purchased the then undeveloped land near Point Turner at the inflated price of $200 per acre. In April 1891, Bremer sold 190 acres to the Navy at $50 per acre. This land became part of the initial footprint of the Puget Sound Naval Shipyard.

Bremerton was officially incorporated on October 15, 1901, with Alvyn Croxton serving as the city's first mayor. Progress in the new city soon faced a major crisis, as Navy Secretary Charles Darling moved all repair work to the Mare Island Navy Yard in California in November 1902. In 1908, the city library and Union High School were established to serve the educational needs of the 2,993 residents recorded in the 1910 U.S. Census.

During World War I, submarine construction and the addition of a third dry-dock caused the shipyard's workforce to balloon to over 4,000 employees. Growth due to the war effort and the 1918 annexation of the city of Manette, east of Bremerton on the Port Washington Narrows, can be seen in the 1920 census, which reported a population of 8,918. Bremerton absorbed Charleston, its neighboring city to the south, in 1927. The city's population reached 10,170 in 1930. At the peak of World War II, the Bremerton area was home to an estimated 80,000 residents due to the heavy workload of shipbuilding, repair, and maintenance required for the Pacific war effort. Most of the relocation was temporary, though, and only 27,678 citizens were left in the city by 1950.

On the whole, the 1950s and 1960s were a period of stability for the city. Population growth was flat, with 26,681 enumerated in the 1960 census, leading Bremerton leaders to annex the shipyard the following year in an effort to include stationed sailors in those figures. With the 1973 selection of the Bangor Ammunition Depot 12 miles northwest of Bremerton as the Pacific home of the new Trident submarine fleet, residential and commercial development began to move closer to Silverdale and farther from the Bremerton downtown core. Numerous failed proposals were made at redevelopment beginning in the early 1970s, including discussions of a waterfront hotel and the erection of a large canopy over the central business district.

In 1985, Safeco subsidiary Winmar Corporation developed the Kitsap Mall in Silverdale. With lower taxes and minimal planning regulations in the unincorporated town, Silverdale achieved virtually unfettered growth. Sears, J.C. Penney, Montgomery Ward, Nordstrom Place Two, Woolworth, and Rite Aid all closed their downtown Bremerton stores in the 1980s and 1990s.

Bremerton Comprehensive Plan

Recent trends, local demographics, and characteristics of the housing stock present a significant challenge for Bremerton to maintain its legacy as a great place to reside. Current conditions in the local housing market, detailed below, are in large part the result of challenging local economics and a gradual weakening of the residential qualities of the city's ageing neighborhoods. The data, however, also portrays the opportunity to capitalize on Bremerton's well established neighborhoods; the city's unique position in the greater Puget Sound economy; and, lastly, to capitalize on regional and national housing trends.

Bremerton's population has been somewhat stagnant for the past 30 years. The decennial census reports from 1970 to 2000 shows a negligible increase of less than 2,000 people. Over such a time span this is an insignificant increase (less than one-fifth of 1 percent annual growth). This number is easily dismissed in Bremerton where there are regular fluctuations in the military population of 2,000 to 3,000 people due to the arrival and departure of Navy personnel. In fact, population estimates conducted by the state of Washington, in coordination with the U.S. Navy, adjusted the city's population down to its 1970 level as recently as February 2002. Furthermore, the most recent U.S. Census report (April 2000) stands out from previous census counts for actually showing a decrease in the city's population (883 people) since the 1990 census. The only other decrease on record was reported between census years 1950 and 1960, due to a down swing of population after an all time high associated with the World War II activity in the Puget Sound Naval Shipyard.

While it is not unheard of for a well established city to have either a stable or slightly decreasing population count over time; Bremerton's slow growth in the past 30 years, despite land use capacity, challenges both past and current growth forecasts. Comparatively, the surrounding county and region have witnessed unprecedented growth in the past 20 years. During this time, the population of Kitsap County, for example, went from 147,152 in 1980 to 231,969 in 2000, an increase of nearly 60 percent. Beginning in 1920, Bremerton's proportion of the county's total population and regional growth has dramatically decreased. Bremerton's population represents a shrinking percentage of the total Kitsap County population despite land capacity within the city that would accommodate significant numbers of new people.

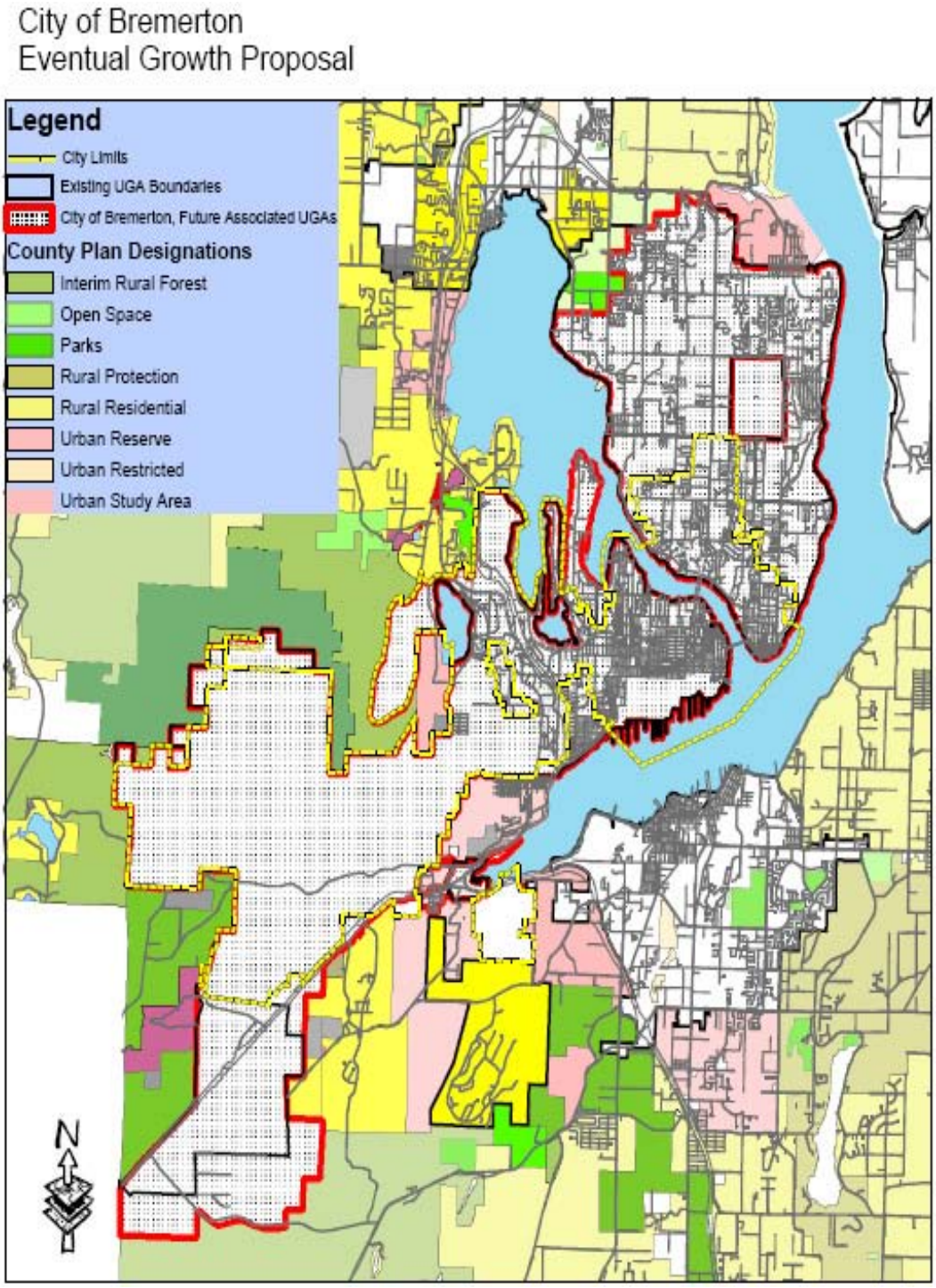
The housing and development market in Bremerton has proven to be uncompetitive with surrounding areas. There are several causes for this from both the supply and demand sides of the housing market. Supply-side factors include the higher cost to redevelop for existing city lots versus the abundance of undeveloped parcels and new development opportunities in the county, including its own Urban Growth Areas. Bremerton's somewhat outdated housing stock, dating back to the previous growth periods of 1940s and 1960s, often fails to address contemporary market demands and a more diverse market demand for housing.

Today's market demands partially reflect demographic changes, which are discussed throughout the document, in areas such as household type, size, income level, and special needs populations. Overarching demographic dynamics which particularly include a new diversity of housing types include substantial growth in senior citizens, singles (non-married, no children), and single parent households.[8]

Figure 3 provides a visual representation of the declared Urban Growth Area of the city of Bremerton. As seen in the areas bordered in red, fairly significant future annexation plans will affect populated areas of Central Kitsap Fire & Rescue to the north and west and South Kitsap Fire & Rescue to the west and south. These areas are already well developed and include significant commercial and residential assets. Both CKFR and SKFR have established response resources in these areas.[9]

[8] City of Bremerton Comprehensive Plan.
[9] Ibid.

Figure 3: – City of Bremerton Urban Growth Map



Bremerton Fire Department

Early Bremerton business buildings were crudely constructed, fragile structures. Local residents knew that a fire of any size could destroy the entire town. Mayor Croxton, who was acting volunteer fire chief,

called for volunteers for the fire department on May 7, 1901. At a May 13, 1902, meeting of the city council, a committee was named to establish the volunteers.

By August 6 of that year, 24 volunteers had enrolled and the council appointed J.D. Humble as the first fire chief. He was a naval warrant machinist at Puget Sound Naval Shipyard. The first organizational meeting was held the following week. Councilman Hanson reported that hydrants and hose had been ordered but hadn't yet arrived.

The town's first major fire after volunteers were enlisted was at the rental owned by Dr. George Warmburg on September 20, 1902. The bucket brigade was kept busy keeping the fire from spreading to adjoining buildings on Washington Avenue.

At the September 22, 1902, council meeting, the purchase of a $175 hose cart was approved as well as the purchase of hooks, ladders, and firefighting buckets. When the equipment arrived in December 1902, Chief Murphy arranged for a fire alarm to be installed at the station located in the J. E. Wood Company building. The fire alarm system was a triangle mounted at the main station. When a fire call came in, the first arriving firefighter rang it to alert volunteers. The alarm system quickly became obsolete. Profits from a 1903 fireman's dance were earmarked for a bell tower to be mounted atop city hall. It wasn't until early March 1904 that a 595-pound bell was purchased to sound the call for the volunteers. Proceeds from the fireman's ball were also used to purchase belts, rubber coats, and hats. The entire volunteer fire department budget was generated through social events.

By the end of 1903, the city appropriated money to modernize the department and the first horse-drawn hose and ladder wagon was purchased, although the wagon didn't have a pump, which meant that firefighters had to rely on water pressure from hydrants. During these early days, the department rarely saved a burning building, the main reasons being construction, delayed response time, and lack of water and manpower. The fireman's ball was interrupted in March 1906 when Jack Smith's Louvre Saloon caught fire. The building burned to the ground, but the volunteers managed to save the whiskey.

In December 1915, Bremerton bought its first fire truck, a Federal purchased from the Girlinger Motor Car Company for $2,950. It was to be Bremerton's only line apparatus for the next nine years. There were five paid employees beginning in 1920, headed by Chief "Shippy" Lent. Full-time firefighters worked seven days a week with no days off except for vacations. The schedule was two weeks working days, two weeks working nights. Shifts were 12 hours.

Today the city has three fire stations and five active units serving a population of 35,580, one fire station per 12,667 people, and one fire apparatus unit per 9,500 people. The current response time is approximately 5 minutes and 30 seconds. The city has a WSRB Class 3 insurance rating.

The fire station locations are as follows:

- Fire Station No. 1, the headquarters station of the fire department, is located in the downtown area of Bremerton. It was constructed in 2005 and houses an engine and a ladder truck that are cross-staffed as well as a command vehicle.
- Fire Station No. 2 is located in West Bremerton and houses an engine and paramedic unit with two personnel assigned to each unit.
- Fire Station No. 3 is located in East Bremerton and is separated from the main land mass of the city by Sinclair Inlet. It is accessed by way of two bridges. This station is quarters to an engine and a paramedic unit with two personnel assigned to each unit.

Bremerton Fire Department equipment includes the following:

- Six fire engines (three 2005 Seagrave engines, three 1992 Seagrave engines)
- One ladder truck (2005 Seagrave 100’ Quint)
- Five paramedic units
- One 26’ rescue boat
- Ten miscellaneous vehicles (e.g. staff, utility, command)

Bremerton Fire Department uses career personnel in all areas of the organization. In 2006, the department has a total of 58 full-time employees (FTEs):

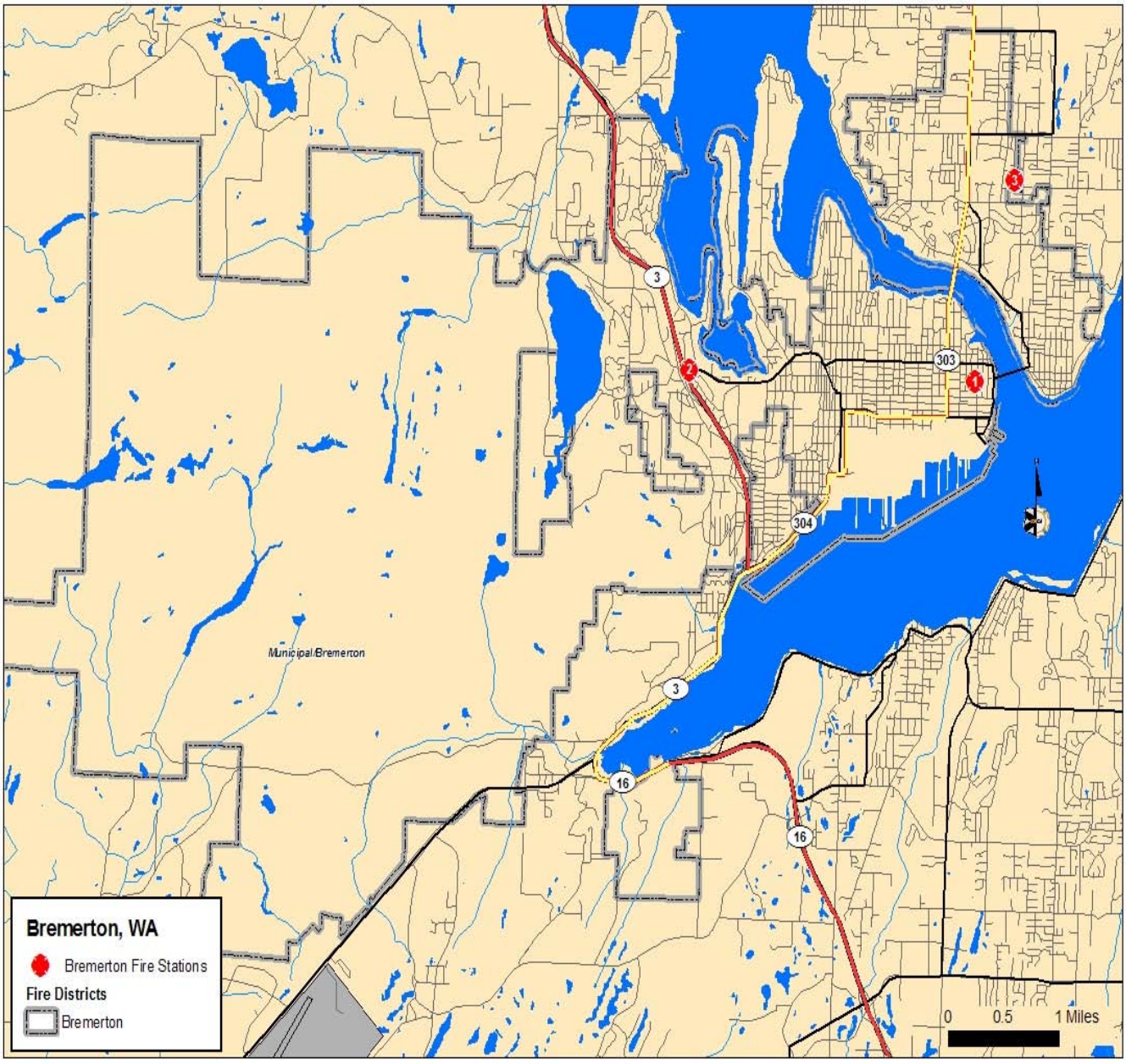
- Six executive/administrative and support personnel
- Three personnel assigned to the Fire Marshal's office
- 49 personnel assigned to the Operations Division

The fire department has 15 operational personnel trained to the ALS (Advanced Life Support) Paramedic level, with the remainder of the line personnel trained as EMTs (Emergency Medical Technicians). In

2005, the fire department responded to 7,299 requests for service and experienced a structural fire loss in the city of $1,075,980.

Figure 4 provides a visual overview of the city of Bremerton service area and the respective fire stations. The department shares in a joint training facility (the Kitsap Readiness Center) with Central Kitsap Fire & Rescue and South Kitsap Fire & Rescue.

Figure 4: – City of Bremerton Service Area and Fire Station Locations



Level of Service (LOS)[10]

The need for fire protection facilities is a function of response time and call volume. These factors, when taken into consideration with community risk, ultimately determine the number and location of fire stations, the number of fire apparatus units, and the total number of fire fighters on-duty. When considering standards of coverage these considerations become the basis for the distribution and concentration of resources as well as system reliability.

Until the city's monitoring system can be further quantified, fire facility needs can be estimated by monitoring response times.

- Current LOS = Response time of 5 minutes and 10 seconds.
- Proposed future LOS = Response time of 5 minutes and 50 seconds.

Future Demand

The projected population growth within the service area is for approximately 3,410 additional residents by 2010 and an additional 9,590 new residents by 2024. The September 1994 Kitsap County Draft Capital Facilities Plan recommends a five-minute response time (from time of call to first unit on site) in urban areas. To achieve this LOS, the plan recommended that stations be located within a five-mile radius of each other to provide blanket coverage throughout the county. A replacement schedule for fire apparatus is based on a 20-year life cycle (rescue vehicles based on a ten-year cycle).

Proposed Facilities

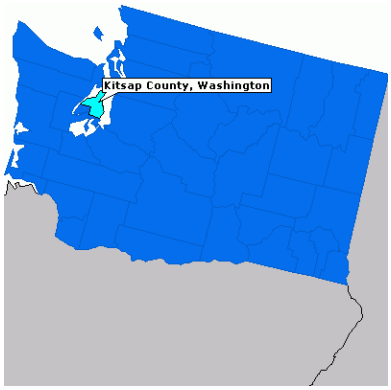
No change in the existing number of stations will be needed within the city limits based on projected service demand and distribution. Because the BFD emergency apparatus fleet consists of up-to-date modern apparatus, it is considered adequate and no additional apparatus is required. However, the department will need to replace existing fire engines toward the end of the ten-year period and additional crews may be needed to staff additional apparatus to meet the stated standards of coverage.

Kitsap County

British Royal Navy Captain George Vancouver (1757-1798) mapped Puget Sound beginning in May 1792 and named several features in Kitsap County, including Port Orchard, Port Gamble, Restoration Point, and Hood Canal. In 1841, U.S. Navy Lieutenant Charles Wilkes (1798-1877) and the U.S. Exploring Expedition performed a more detailed survey and provided more names, including Bainbridge Island, Port Blakely, Agate Point, Apple

[10] City of Bremerton Comprehensive Plan.

Tree Point (misidentifying dogwood blossoms), and Port Madison.

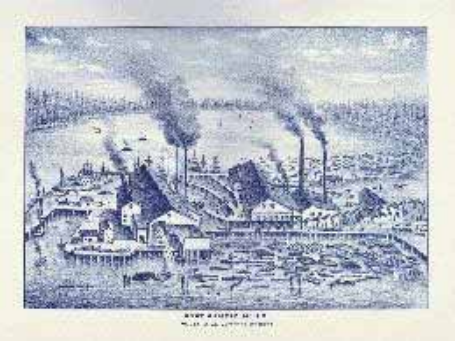


Kitsap County history can be divided into two distinct timeframes: territorial (1857 - 1889) and statehood. The territorial period was marked by a surge in economic development. Because of its unique geographic qualities (surrounded by water, protected harbors, large stands of virgin trees), it caught the attention of San Francisco lumber merchants. The big trigger to a settlement on the Kitsap Peninsula came with the California Gold Rush in 1850. San Francisco, the largest city on the West Coast of North America, burned down several times and the resulting demand for lumber sent sea captains and entrepreneurs to Puget Sound where great stands of hemlock, spruce, cedar, and Douglas fir grew to the water's edge. In July 1853, Maine native W. C. Talbot found the mouth of Port Gamble Bay to his liking and, after persuading the Native Americans to move, he constructed a mill and a community called Teekaleet, later re-named Port Gamble. As the years went by, five great lumber mills were established.

The statehood period in Kitsap County is notable for the growth of the military presence in the area. In the 1880s, the U.S. Government chose Port Orchard as the site of a repair facility to help support naval operations in the Pacific Ocean. The government's search for a harbor suitable for a naval dry-dock facility culminated with the purchase of land on Sinclair Inlet and the development of Bremerton. This commenced a major component of the county's permanent economy. The Puget Sound Naval Shipyard at Bremerton (1891) was followed by the torpedo testing station at Keyport (1914), the refueling station at Manchester (1938), and the huge nuclear submarine base at Bangor (1977) on Hood Canal, as well as many smaller supporting facilities.[11]

Kitsap County Today

Kitsap County has reached a crossroads in its growth and development where many residents, business people, and government officials see an opportunity to provide direction and vision for the future growth of Kitsap County. Despite rapid growth in the past two decades, Kitsap County remains an attractive place to live and work – and its residents want to keep it that way.[12]



[11] Washington State Wikipedia.
[12] Kitsap County Comprehensive Plan.

The Washington State Ferry System carries more than half of its 25 million passengers back and forth from the east side of Puget Sound to Kitsap County.

Kitsap County faces several critical issues that, if misguided, could contribute to a loss of the sense of place that gives Kitsap County its unique character. These include the potential loss of its rural character, increasing growth pressures from forces both within Kitsap County and from without, increasing traffic on area roadways, and the implementation of public transit routes and alternative modes of transportation.

- Kitsap County had an 87 percent increase in population between 1970 and 1990 – more than twice the state's growth rate of 42.6 percent.
- In the ensuing ten years, Kitsap County grew from 189,731 to 231,969 – a 22 percent increase between 1990 and 2000.
- The 2005 estimated population of Kitsap County was 240,000.
- Over 20,000 homes have been added in the last 15 years.
- Today, in terms of the number of people per square mile, Kitsap is the second most-densely populated county in the state next to King County.

A current map of Kitsap County is provided in Figure 5.

Figure 5: – Kitsap County Jurisdictional Boundary Map

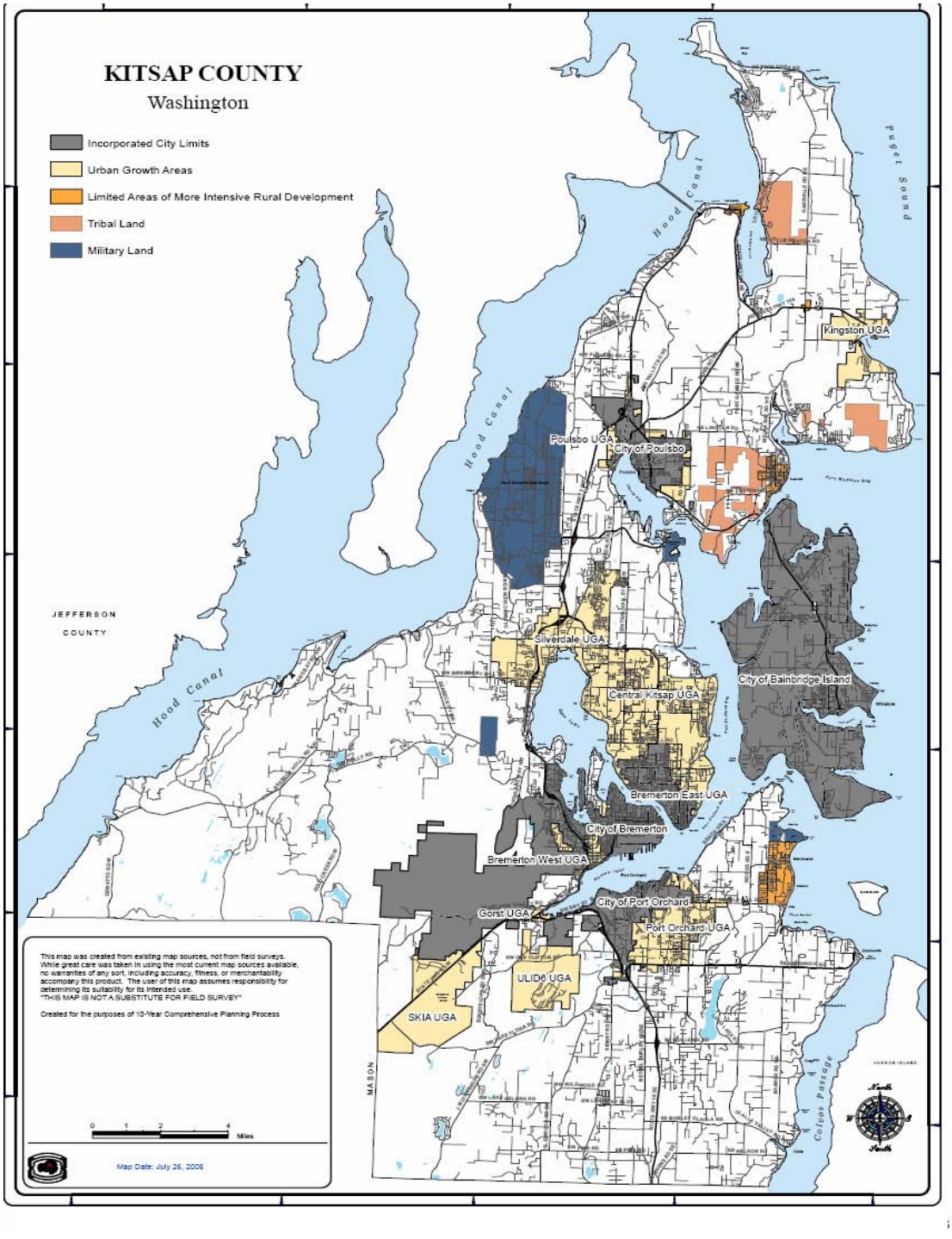


Figure 6 provides a comparison of demographic statistics for Kitsap County and Washington State. This information is provided from the Kitsap County 2006 Comprehensive Plan.

Figure 6: – Kitsap County/Washington State Demographics

	Kitsap County	Washington State
Population, *July 2006 estimate*	240,604	6,395,798
Population*, percent change, April 1, 2000 to July 1, 2006*	3.72%	8.51%
Population, *2000*	231,969	5,894,121
Population, *percent change, 1990 to 2000*	22.3%	21.1%
Persons under 5 years old, *percent, 2004*	6.1%	6.2%
Persons under 18 years old, *percent, 2004*	24.7%	24.0%
Persons 65 years old and over, *percent, 2004*	11.1%	11.3%
Female persons*, percent, 2004*	49.5%	50.1%
High school graduates, *percent of persons age 25+, 2000*	90.8%	87.1%
Bachelor's degree or higher, *pct of persons age 25+, 2000*	25.3%	27.7%
Housing units, *2004*	97,245	2,606,623
Homeownership rate, *2000*	67.4%	64.6%
Housing units in multi-unit structures, *percent, 2000*	19.9%	25.6%
Median value of owner-occupied housing units, *2000*	$152,100	$168,300
Households, *2000*	86,416	2,271,398
Persons per household, *2000*	2.60	2.53
Per capita money income, *1999*	$22,317	$22,973
Median household income, *2003*	$51,042	$48,185
Persons below poverty, percent, *2003*	9.2%	11.0%

Kitsap County Comprehensive Plan

In the face of continued growth, Kitsap County seeks to shape its future in ways that will maintain the quality of life that makes Kitsap County a special place to live and work. Kitsap County citizens, through

an extensive public involvement process, have described how they see their county today and tomorrow. They have made it clear what they want Kitsap County to look like 20 years from now.

This vision has guided development of the Kitsap County Comprehensive Plan. The plan's goals and policies give direction for managing future growth consistent with citizens' desired future and quality of life. A key strategy to accomplish this vision is the intention to encourage future urban growth in areas within incorporated cities and in unincorporated areas that are already characterized by urban growth with existing and planned services and facilities. These actions will work to strengthen the natural environment and the rural character and are geared to reduce taxpayer costs by focusing the expenditure of public funds, encouraging concentrated development where appropriate, and increasing choices for housing and jobs. This plan recognizes the complexities involved in balancing historical patterns of growth with a preferred vision of the future, requirements of the Growth Management Act (GMA), and related state laws. It recognizes that some tradeoffs must be made to balance costs with gains: that flexibility is necessary to adapt to changing conditions, that periodic vision and plan evaluation are appropriate, and that at all times the plan must reflect the long-term goals of the people living and working here.[13]

Comprehensive plans must meet three requirements of the Washington State Growth Management Act (GMA).[14] Those requirements are:

- **Comprehensiveness:** The plan should look at Kitsap County as an integrated set of systems of land use, housing, transportation, capital facilities and utilities. Kitsap County and all elements of this plan should be addressed from a countywide perspective.

- **Consistency:** The plan should avoid internal contradictions and not interfere with the successful implementation of the plans of neighboring jurisdictions. Its policies should be consistent with the direction established by the GMA, the Kitsap Countywide Policies, and regional plans such as VISION 2020 and Destination 2030.

- **Capital facilities:** Kitsap County must demonstrate that it can afford the infrastructure needed to support the expected growth. If the services cannot be provided, the land uses must be revised or the levels of services revised.

Kitsap County Fire Protection

Kitsap County is provided emergency fire protection, medical, rescue, and special operations services by North Kitsap Fire & Rescue, Central Kitsap Fire & Rescue, South Kitsap Fire & Rescue, Fire Protection District 2, and Fire Protection District 18. Additionally:

- The city of Bremerton has its own fire department.

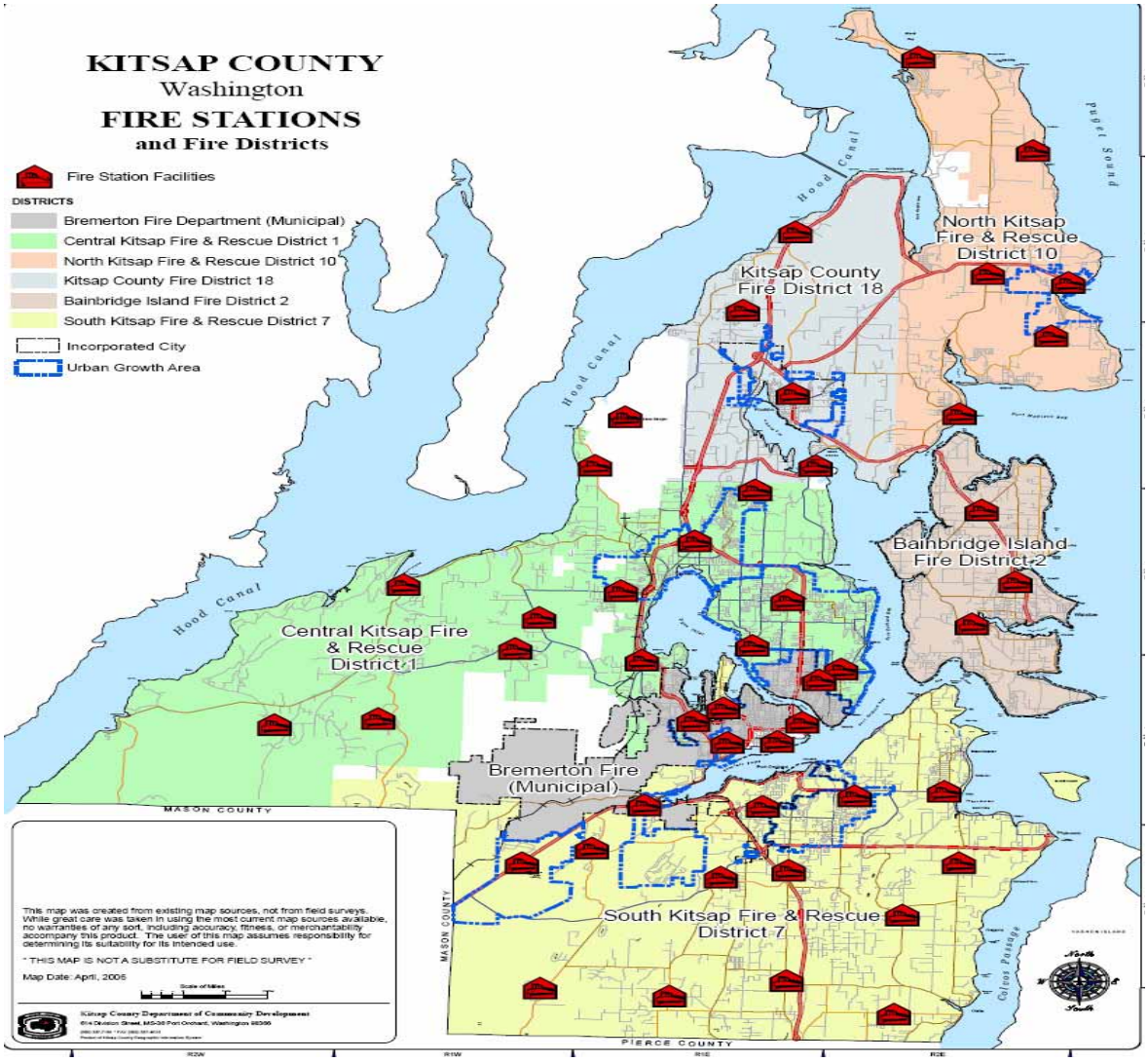
[13] Kitsap County Comprehensive Plan.
[14] RCW 36.70A.020.

- The city of Port Orchard is provided emergency services by South Kitsap Fire & Rescue.
- The city of Poulsbo is provided emergency services by Kitsap County Fire District 18.
- Bainbridge Island is provided emergency services from Kitsap County Fire District 2.

While each of the major fire districts has fire prevention, public education, and inspection services, the Kitsap County Fire Marshal's Office maintains authority over these services.

There are 41 fire stations in the county; 20 with full-time career staffing. An additional seven fire stations located on military installations are under the jurisdiction of the Commander Navy Region Northwest Fire and Emergency Services. Figure 7 provides a complete map of the fire stations in Kitsap County.

Figure 7: – Kitsap County Fire Stations



Historical Consolidations of Kitsap County Fire Services

By 1964 there were 27 fire departments in Kitsap County, including the Federal Fire Departments. As early as 1968, an official study was launched to improve fire protection by working cooperatively together and working towards the consolidation of fire protection agencies.

In June 1969 the *Kitsap County Fire Protection Plan* was published with the assistance of the Washington State Planning and Community Affairs Agency. Participants in the study included the Kitsap-Mason County Firefighters Association, Kitsap County Fire Commissioners Association, Fire Districts 1 – 11, and Fire Districts 13 – 19.

The purpose of this report was to help the fire districts in continuing to expand their fire protection facilities to meet the demand of future development in the county.[15] There were five objectives and eight recommendations proposed in the plan. The report was organized into eight sections. The first three sections dealt with the plan itself, the recommendations for implementing the plan, and planning considerations for 1975 to 1990. The next four sections contained the basis for the plan, legal factors governing fire districts, and the standards developed by various agencies which regulated the requirements for fire districts and fire stations. The final section contained a bibliography of reference materials.

The plan's first recommendation was that "…*the fire districts of Kitsap County be consolidated into five fire districts with headquarters in the cities indicated as an optimum alternative to the existing organization of districts.*" The recommendation further noted that the five consolidated fire departments would be:

- North Kitsap Fire District/Poulsbo
- Central Kitsap Fire District
- Bainbridge Fire District
- Bremerton Fire Department
- South Kitsap Fire District

The 1969 report had several other recommendations pertinent to the future of Kitsap County fire services. Those recommendations were:

- Fire district boundaries coincide with the existing school district boundaries and the city limits boundaries of Bremerton.
- A county fire marshal be hired.
- The county and the fire districts incorporate water supply requirements for future growth of communities and subdivisions for better fire ratings.
- Fire hydrants be required on all subdivisions of one acre or less.
- Establishment of a countywide training facility.
- Fire department substations be utilized to keep all residential development within a two-mile travel distance from a recognized fire station.
- Federal funds be sought for development of future fire stations.
- A common countywide telephone number for emergencies be established.

[15] Fire Protection Plan – Kitsap County.

A number of other key studies and plans followed the 1969 Kitsap County Fire Protection Plan, including studies in 1975, 1979, and 1986; Kitsap County fire agencies' *A Partnership of Service* merger study (October 1994); and the *Final Consolidation Report* of 1996. Figure 8 represents a summary of the consolidation activity beginning in the 1960s and through the ensuing 40 years.

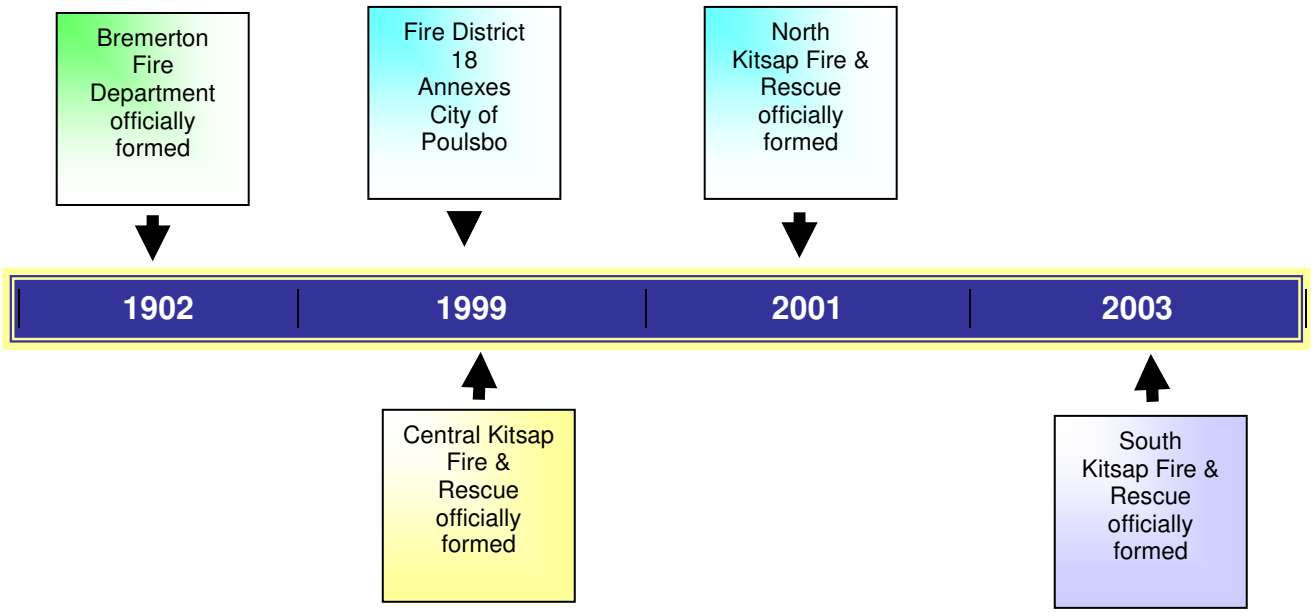
Figure 8: – History of Kitsap County Mergers

Year	Merge Activity	Notes
1960s	Original District #12 (Shorewood) annexed into the city of Bremerton	
1977	District #11 (Tracyton) merged into District #15 (Brownsville and Island Lake)	
1978	District #17 (Lemola) merged into District #18 (Poulsbo)	
1981	District #3 (Keyport) merged into District #18 (Poulsbo)	
1986	District #5 (Indianola) merged into District #10 (Kingston)	
1987	District #16 (Kitsap Lake/Wildcat lake) and District #13 (Chico/Erland) merged	Renamed District #12
1989	District #9 (North Perry) merged into District #15	
1991	District #8 (Navy Yard City), District #19 (Rocky Point) merged into District #7 (South Kitsap)	
1999	District #18 (Poulsbo) annexed the City of Poulsbo	
1994	District #4 (Suquamish) merged into District #10 (Kingston)	
1994	District #6 (Sunnyslope) merged into District #7 (South Kitsap)	
1999	District #15 (Brownsville) and District #1 (Silverdale) merge	Renamed CKFR
2001	District #14 (Hansville) and District #10 (Kingston) merge	Renamed NKFR
2003	District #12 (Chico) merged into CKFR	
2003	District #7 (South Kitsap) annexed Port Orchard	Renamed SKFR

All of these reports and subsequent guidance were the result of visionary fire service leadership in Kitsap County and forged the way for Kitsap County to go from 27 fire departments in 1964 to the current six.

It was during this series of consolidations and mergers that the three larger fire districts emerged: North Kitsap Fire & Rescue; Central Kitsap Fire & Rescue, and South Kitsap Fire & Rescue. The Bremerton Fire Department continued to remain an independent, municipal fire department throughout the history of fire district mergers. The figure below displays the chronology of events as the consolidated fire districts were formed.

Figure 9: – Kitsap County Fire Agencies



Capital Improvement Plans

The current *Kitsap County Comprehensive Plan* includes the following provision for:

> **Public Facilities and Services:** Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

The Growth Management Act requires each county in the state of Washington to identify public facilities that will be required during the seven years following adoption of a new plan (2006 through 2012). This comes in the form of a CFP (Capital Facilities Plan). A CFP is required by the GMA and is one of six required elements of Kitsap County's Comprehensive Plan:

1. Land Use
2. Housing
3. Transportation
4. Utilities
5. Rural Designations (counties only)
6. Capital Facilities Plan

RCW 36.70A.070(3)(d) requires the capital facilities plan to include "a six-year plan that will finance such capital facilities within projected funding capacities and clearly identifies sources of public money for such

purposes." RCW 36.70A.070(3)(e) requires that all capital facilities have "probable funding" to pay for capital facility needs, or else the county must "reassess the land use element."

The purpose of a CFP is to use sound fiscal policies to provide adequate public facilities consistent with the land use element and concurrent with, or prior to, the impacts of development in order to achieve and maintain adopted standards for levels of service and to exceed the adopted standards, when possible.

A CFP must include the location and cost of the facilities and the sources of revenue that will be used to fund the facilities. A CFP is the element that makes the rest of the comprehensive plan a "reality." By establishing levels of service as the basis for providing capital facilities and for achieving concurrency, a CFP ultimately improves the quality of life in the community. The requirement to fully finance a CFP (or revise the land use plan) provides a reality check on the vision set forth in a comprehensive plan. The capacity of capital facilities that are included in a CFP affects the size and configuration of the urban growth area.

The Kitsap County CFP represents the seven-year period of 2006-2012, which includes the base year 2006. It forecasts the 2007-2012 need for public facilities along with specific capital project expenditures and revenues that support Kitsap County's current and future population and economy. One of the principal criteria for identifying needed capital improvements is a standard for *levels of service* (LOS).

The Kitsap County CFP contains LOS standards for each public facility and requires that new development be served by adequate facilities (i.e., the "concurrency" requirement). The CFP also contains broad goals and specific policies that guide and implement the provision of adequate public facilities.

Levels of service are usually quantifiable measures of the amount of public facilities that are provided to the community. Levels of service are expressed as ratios of facility capacity to demand (i.e., actual or potential users).

Each of these levels of service measures needs one additional piece of information: The specific quantity that measures the current or proposed level of service. For example, the standard for parks might be 5 acres per 1,000 population, but the current level of service may be 2.68 acres per 1,000, which is less than the standard. In order to make use of the level of service method, the county selects the way in which it will measure each facility and identifies the amount of the current and proposed level of service.

There are other ways to measure the level of service of many of these capital facilities. The examples in Figure 10 are provided to give a sampling of methodologies used in determining the county's need for capital facilities.

Figure 10: – Level of Service Standards[16]

Type of Facility	Sample Level of Service Standard (Measure)
Corrections	Beds per 1,000 Population
Fire and Rescue	Average Response Time
Law Enforcement	Officers per 1,000 Population
Parks	Acres per 1,000 Population
Roads and Streets	Ratio of Actual Car Trips to Road Capacity
Schools	Students per Classroom
Sewer	Gallons per Customer per Day
Solid Waste	Tons (Cubic Yards) per Capita
Stormwater	Design Storm (e.g., 100-Year Storm)
Water	Gallons per Customer per Day/Water Quality

Fire Facilities

Figure 11 summarizes the capital facilities for each fire district. It also includes each district's WSRB rating and service area population.

Figure 11: – Kitsap County Fire District Matrix

Fire Agency	Number of Fire Stations	WSRB Rating	Response Units	EMS Services	Population (2006)
CKFR	12	4	37	Yes	72,000
SKFR	16	4	34	Yes	82,500
NKFR	3	5	15	Yes	23,441
KCFD 18	4	4 (Inside City Limits) 5 (Outside City Limits)	15	Yes	25,112

Level of Service Analysis – A Historical Perspective

Two historical methods used in determining *level of service* for fire districts were response units per capita and response time. Since many districts operate using a level of service (LOS) tied to response time, it is included in this discussion; however, for capital facilities forecasting, the per capita method provides a more quantifiable LOS that can be easily compared to cost.

[16] Kitsap County Comprehensive Plan 2007.

Determination of an LOS using the response units per capita method is calculated by dividing the number of fire units operated in a district by the district's population. Multiplying the established LOS by future population projections is a proven method for reasonably predicting growth-related fire and emergency service capital facilities requirements.

- This method uses only fire/emergency units (e.g. fire engines, water tenders, and medic units).
- Fire stations are included in the Capital Facilities Needs section of this document; however, they are not included in the LOS calculation.
- Although personnel are an integral component to the operation of any fire district, personnel are not considered a capital facility items under the requirements of the Growth Management Act (GMA).

Response time can be defined as the amount of time that elapses between the initial call for assistance and arrival of the first emergency unit on site. A five-minute response time in urban areas and a ten-minute response time in rural areas is a level of service goal that several districts try to meet. Fire stations in rural areas tend to be staffed primarily by volunteers, which generally results in a longer response times.

Planning for fire protection and medical services facilities that use this method is often tied to a geographic distribution of stations and the equipment housed at each facility. With this method, a population increase does not have as direct an effect on fire protection facility needs as it would on other types of capital facilities, such as water systems and schools. Population increases will more directly affect the number of emergency service calls that a district receives, which in turn affects the number of personnel and amount of equipment needed to maintain an adequate response time.

Central Kitsap Fire & Rescue

As a result of a large and economically devastating dock fire on the Silverdale waterfront, where a hand drawn hose cart was the only means of fire protection for the area, citizens of the community came together to discuss the formation of a fire protection district for the community. On June 22, 1942, with a vote of 76 “for” and 8 “against,” the citizens of the Silverdale area elected three of its residents as fire commissioners and approved the formation of Kitsap County Fire Protection District No. 1.

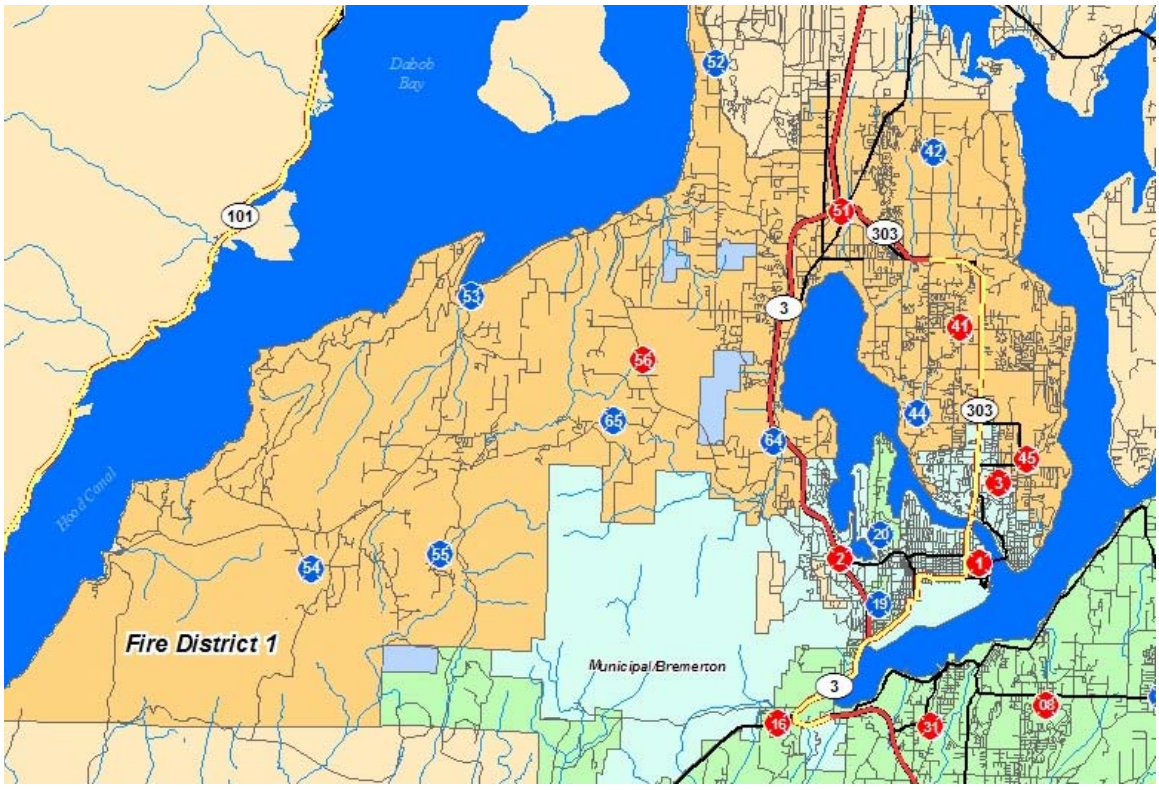
The newly formed fire district was the first of its kind within the unincorporated area of Kitsap County. Through community donations, the district’s treasury soon contained $600. By March 1943, the fire district purchased a 1936 Chevy, 1.5 ton flat bed truck for $425. With the assistance of fire district members, a wooden water tank and gasoline-powered pump were mounted on the flat bed, which began to serve the citizens as the first and only fire truck within the district. In 1945 and 1947, two additional

fire trucks were purchased, bringing the fleet to a total of three apparatus. Bunker gear and other firefighting equipment were obtained through surplus, either from other departments across the state or permanently loaned to the department through war surplus.

A total of 19 fire districts were established within Kitsap County from the early 1940s to the 1960s. In 1949, the citizens of North Perry (East Bremerton area) formed Kitsap County Fire Protection District No. 9. In 1952, the citizens of Tracyton formed Kitsap County Fire Protection District No. 11; and, in 1954, the citizens of Brownsville formed Kitsap County Fire Protection District No. 15.

As years passed, small communities such as Seabeck and Olympic View, which had informally created their own fire departments, became a part of Fire District No. 1. In 1977, Fire District No. 11 merged into Fire District No. 15, and a new facility was built in the Meadowdale area with Trident impact funds from the federal government. In 1989, Fire District No. 9 merged into Fire District No. 15. In 1999, Fire District No. 15 merged into Fire District No. 1, also resulting in a legal name change of the newly merged district to Central Kitsap Fire & Rescue. On January 1, 2003, Kitsap County Fire Protection District No. 12, itself a product of mergers between Districts No. 13 and No. 16, became part of Central Kitsap Fire & Rescue (CKFR), bringing the total area being protected up to 115 square miles. Figure 12 shows the current boundaries and fire stations for CKFR.

Figure 12: – Central Kitsap Fire & Rescue – Boundaries and Fire Stations



Central Kitsap Fire & Rescue is one of the largest fire service providers in Kitsap County. Within its boundaries and contracted areas, CKFR provides Fire and Emergency Medical Services (EMS) response to an estimated 2005 population of approximately 72,000 citizens.

Communities recognized within CKFR are Silverdale, Olympic View, Seabeck, Lake Symington, Lake Tahuya, Island Lake, Ridgetop, Crosby, Hintzville, Holly, Brownsville, Gilberton, Meadowdale, North Perry, Illahee, Tracyton, Chico, Wildcat Lake, Kitsap Lake, and Erlands Point. Because of its location, the district contains a significant amount of waterfront—40 miles of tidal waterfront with adjacent saltwater area.

The larger water purveyors in CKFR are Silverdale Water District, North Perry Water District, Public Utility District #1, and Bremerton Water Department. There are many smaller water systems throughout the district that typically serve the daily domestic needs of residential subdivisions (many of which are not capable of providing adequate quantities of water for fire flow or are not designed with fire hydrants for firefighting needs).

Central Kitsap Fire & Rescue operates 12 fire stations throughout the district (Figure 12). The fire stations are organized into three geographical area descriptions:

- Division 41 (east of Ridgetop area including fire stations 41, 42, 44, and 45, of which Stations 41 and 45 are staffed with career personnel).
- Division 51 (central Silverdale core including fire stations 51and 52, of which Station 51 is staffed with career personnel).
- Division 56 (west to Hood Canal and Mason County including fire stations 53, 54, 55, 56, 64, and 65, of which Station 56 is staffed with career personnel).

Additional buildings within the fire district are its administrative facility and vehicle maintenance facility (both are co-owned and co-staffed with Silverdale Water District), central supply facility, facilities maintenance, and the Station 43 (no longer used as a fire station).

Central Kitsap Fire & Rescue equipment includes the following:

- 14 fire engines
- 2 brush engines
- 1 ladder truck (50’ Quint)
- 6 water tenders (five 3,000-gallon tenders and one 1,250-gallon tender)

- 2 rescue units
- 10 medical units (3 ALS and 7 BLS units)
- 2 emergency scene rehabilitation units
- 1 - 17' rescue boat
- 20 miscellaneous vehicles (e.g., staff, utility, delivery)

Central Kitsap Fire & Rescue is referred to as a "combination" fire district that uses both career and volunteer personnel. Five fire commissioners, 21 administrative and support personnel, 66 career line personnel, and approximately 103 volunteer personnel make up its membership. The fire district currently has 19 of its line personnel trained to a paramedic level with the remainder of the line personnel and some administrative personnel trained as Emergency Medical Technicians (EMTs).

South Kitsap Fire & Rescue

The 1946 ballot proposing creation of the fire district stated, "*Shall the hereinafter described territory be formed and established as a fire protection district, to be known as Kitsap County Fire Protection District No. 7, under the Laws of the State of Washington?...*" On September 10, 1946, with 340 yes votes out of a total of 370 votes cast, Kitsap County Fire District No. 7 was formed.

The first fire commissioners' meeting took place on October 9, 1946. In November 1946, the district's initial expenses were funded by $20,000 in general obligation bonds to purchase stations and equipment. Two fully equipped fire trucks were purchased at a cost of approximately $7,660 each.

The fire district started off with a volunteer fire chief who served for ten years. In 1947 the district purchased the East Port Orchard Fire Hall for $1,500. In November 1947, four houses to be used as fire stations were purchased at a cost of $184 each. Stations were established in Annapolis, Gorst, Yukon Harbor, Olalla, and Bethel. In 1952 the first women's volunteer fire brigade was organized.

In 1963 the commissioners decided the fire chief and assistant fire chief positions were not needed. In 1966, with increasing call volumes, a new paid fire chief was named. In 1964, funded by donations and fund-raising efforts, a medical emergency response program was initiated with the purchase of a van-type vehicle.

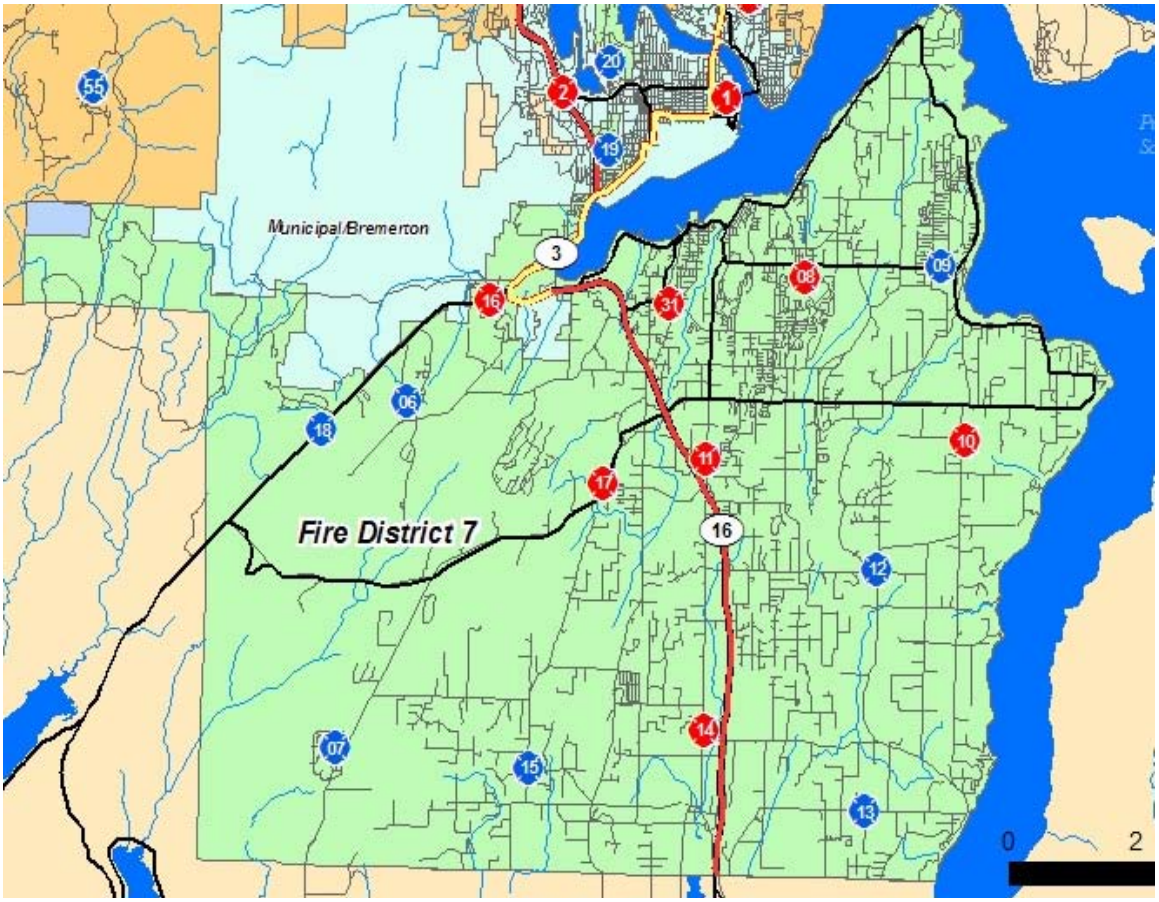
In 1970, the fire district had a full-time paid staff consisting of a fire chief, a fire marshal, one mechanic/firefighter, one full-time dispatcher, and two part-time dispatchers. The first two paid firefighters were hired in November of 1971. In June 1974, district volunteers answered 220 requests for

emergency medical service; and in 1975, the first career female EMT and three career paramedics were hired. In 1982 the chaplain program was implemented and still serves as an example of excellent volunteer service. The district came into the computer age in 1983 with the purchase of its first computer.

In January 1992, Districts No. 8 and No. 19 merged with District No. 7; and in January 1994, District No. 6 merged with District No. 7. In 1995, 13 additional personnel were hired (five lieutenants, four firefighter/paramedics, and four firefighters). Two new stations were opened in Glenwood and Banner. Construction of a training tower and maintenance facility behind headquarters was completed in 1998. The district received full accreditation through the Center for Public Safety Excellence (CPSE) in 2000.

In 2005, the district's official name was changed from Kitsap County Fire Protection District No. 7 to South Kitsap Fire & Rescue. At present, the district has 90 full-time employees and serves more than 82,500 citizens over an area of 150 square miles from 16 stations. The following Figure 13 shows the boundaries and fire station locations for the SKFR service area.

Figure 13: – South Kitsap Fire & Rescue – Boundaries and Fire Stations



The district's service area includes 22 miles of tidal waterfront with adjacent saltwater area, plus numerous small lakes and ponds. SKFR also covers a considerable amount of Washington State Department of Natural Resources (DNR) land on a contractual basis. SKFR serves the Port of Bremerton's Airport and Olympic View Industrial Park under a contractual agreement. The City of Port Orchard has annexed into South Kitsap Fire & Rescue.

Fourteen percent of the water for fire fighting is provided by a number of water districts and systems. The fire district relies on water tenders for fire fighting water in the remaining 86 percent. The major water purveyors in South Kitsap are Annapolis Water District; the Manchester Water District; the city of Port Orchard; Bremerton Water; and the privately owned water systems Harbor Water, Crown Properties Incorporated, Long Lake View Estates, McCormick Woods Water Company, Rainier View Water, Sunnyslope Water, and Watauga Beach Community Water.

South Kitsap Fire & Rescue responds to all types of fire, medical, and related emergency situations from 16 stations located throughout the fire district (Figure 13). Six of the SKFR fire stations are staffed with

career employees 24 hours per day while the remaining ten fire stations respond with volunteer firefighters. SKFR staff comprises 90 career employees and 52 volunteers and is therefore considered a "combination" district. The district's equipment includes:

- 17 fire engines
- 2 Wildland units
- 1 Rescue unit
- 1 Command unit
- 8 water tenders
- 4 ALS units and 4 BLS ambulances
- 1 ladder truck
- 25 miscellaneous vehicles (e.g., staff, utility)

Summary Overview of the Agencies

The Bremerton Fire Department, Central Kitsap Fire & Rescue, and South Kitsap Fire & Rescue are all modern and well run fire service agencies serving the core areas of Kitsap County. With little exception, the three agencies are independent emergency services providers with separate governments, separate staffs, and separate leaderships. As with most other fire service agencies in the United States, these fire agencies are "*all risks*" fire departments: the first responder and first line of defense for all natural and man-made emergencies, calamities, tragedies, and disasters in their respective jurisdictions.

The fire agencies' jurisdictions encompass the incorporated boundary of the city of Bremerton as well as the remaining unincorporated areas of Central and South Kitsap County as reflected in the fire districts' legal descriptions. The response areas include a very urban setting, a vast suburban area, and large rural areas encompassing 238 square miles. The characteristics of the entire region are wide and varied, ranging from older, well established neighborhoods, to more rapidly growing suburban communities with convenient commercial goods and services available.

All three fire agencies are dispatched through a regional communications center, CENCOM, that provides emergency call receipt and dispatch service. Enhanced-911 telephone service, computer-aided dispatch, and a multi-channel radio system are in place.

The following pages provide an organizational overview of the three agencies and a comparison of these agencies with others serving communities of similar size within the same region of the United States.[17]

[17] Comparison data from the National Fire Protection Association - *Fire Department Profiles 2003*.

Responsibilities and Lines of Authority

The Bremerton Fire Department is a part of the city and its fire chief is appointed by and reports directly to the mayor. Both Central Kitsap Fire & Rescue and South Kitsap Fire & Rescue are fire districts, a municipal corporation of the State of Washington. Both the CKFR and SKFR fire chiefs are appointed by and report to elected Boards of Fire Commissioners.

The city operates under a strong mayor form of government; the city council is provided under Washington State law with broad power and authority to govern the provision of all municipal services within the city including organizing a fire protection system, appointing officers and members, purchasing land and equipment, entering into contracts, issuance of bonds, and levying of taxes. The fire commissioners of each fire district have the same fiduciary authority and responsibilities.

The role and authority of the fire chief is not clarified within city ordinances and written policy documents except as reflected in the job description. An adequate and clear policy would clarify that governing officials are a policy-making body and would not be involved in day-to-day decisions and operational functions that might interfere with clear unity of administration of the city. The following figure provides a summary of the lines of authority practices of BFD, CKFR, and SKFR.

Figure 14: – Lines of Authority Practices

Component	BFD	CKFR	SKFR
Fire Chief appointed+	Yes	Yes	Yes
Roles and authority of governance and management identified+	Yes	Yes	Yes
Governance policies in place+	No	Yes*	Yes*
Roles and authority of Fire Chief identified+	Yes	Yes	Yes
Current contract with Fire Chief+	No	Yes	Yes
Current collective bargaining agreement in place with labor group+	Yes	Yes	Yes

+Required for CPSE Accreditation.
**In need of updating.*

Foundational Policy

Organizations that operate efficiently are typically governed by clear policies that lay the foundation for effective organizational culture. These policies set the boundaries for both expected and acceptable behavior, while not discouraging creativity and self-motivation. A comprehensive set of agency operating rules and guidelines should contain at least two primary sections. The following format is suggested.

1. Administrative Rules – This section would contain all of the rules that personnel in the organization are required to comply with at all times in addition to duly adopted city policies.

Administrative rules, by definition, require certain actions or behaviors in all situations. Administrative rules should govern all members of the organization - paid, volunteer, and civilian. Rules and policies, by their nature, require different application or provisions for different classifications of members. These differences should be clearly indicated and explained in writing. Specifically, administrative rules should include but not necessarily be limited to:

- Public records access and retention
- Contracting and purchasing authority
- Safety and loss prevention
- Respiratory protection program
- Hazard communication program
- Harassment and discrimination
- Personnel appointment and promotion
- Disciplinary and grievance procedures
- Uniforms and personal appearance
- Other personnel management issues

2. Standard Operating Guidelines (SOGs) – This section should contain *street-level* operational standards of practice for personnel of the agency. SOGs are different from administrative rules in that variances are allowed in unique or unusual circumstances where strict application of the SOG would be less effective. The document should provide for a program of regular, systematic updating to assure it remains current, practical and relevant. SOGs should be developed, approved, and enforced under the direction of the fire chief.

Figure 15 provides a summary of the administrative practices of the three agencies.

Figure 15: – Administrative Practices

Component	BFD	CKFR	SKFR
Administrative rules in place[+]	Yes	Yes	Yes
Administrative rules up to date	No	Most	Most
Periodic training in administrative rules	No	No	No
Policy in place for review/update	No	No	Yes
SOPs/SOGs in place[+]	Yes	Yes	Yes
SOPs/SOGs up to date	No	Partial	Partial
Periodic training in SOPs/SOGs[++]	Some	Some	Some

[+] Required for CPSE Accreditation.
[++] Required by WAC 296-305 -- Fire Department Health and Safety Standard.

Organizational Structure

A well-designed organizational structure and subsequent organization chart should reflect the efficient assignment of responsibility and authority, allowing the organization to accomplish effectiveness by maximizing distribution of workload. An organizational chart clarifies accountability, coordination, and supervision. The 'chain of command' is the recognized chain of communication for organizational business and authority.

Additionally, there should be a written, adopted, and posted chain of communications document parallel to the chain of command that clearly defines the methodology and process for organizational communications. Both of these documents should be readily available to all members and periodically incorporated into the training curriculum. Appendices C, D, and E of this study provide the organization charts for the Bremerton Fire Department, Central Kitsap Fire & Rescue, and South Kitsap Fire & Rescue.

Every organization should have clear and concise job classifications for each position. Thorough and up-to-date job descriptions should provide the details for each position and ensure that each individual's specific role is clear and centered on the overall mission of the organization. Job descriptions constitute only a portion of the effective communication of a position's specific requirements. Each job description should include specific performance measures to ensure that all of the requirements of the job can be measured and quantified.

Figure 16 summarizes the organizational structure practices of the three agencies.

Figure 16: – Organizational Structure Practices

Component	BFD	CKFR	SKFR
Chain of command established[+]	Yes	Yes	Yes
Chain of command posted	Yes	Yes	Yes
Chain of communications defined	No	Yes	No
Chain of communications posted/communicated	No	Yes	No
Current job classifications for all positions[+]	Yes	Yes	Yes
Current job descriptions for all positions	Yes	Yes	Yes
Job descriptions regularly reviewed/updated	No	No	No
Update/review policy for job classifications and job descriptions	No	No	No
Performance measures in place and a part of job descriptions for all positions	No	No	No
Performance measures regularly updated	Yes	No	No
Performance evaluations conducted regularly	No	Yes	Yes
Performance measures a part of the evaluation process	No	No	No
Performance evaluation process includes setting personal goals	Yes	Yes	Yes

[+] *Required for CPSE Accreditation.*

Management Components

As with most emergency service agencies, all fire agencies face challenges to organizational growth and management. In addition to the continuing growth of the community and workload, management of personnel presents unique issues involving consistency and adequacy of response, maintenance of competencies, and recruitment of future employees. This section examines the efforts, preparation, and planning necessary to ensure future success.

Strategic Planning

A comprehensive fire department strategic plan should incorporate the input from representative community/department leaders (customers) and fire department members/employees. With such input, a planning team consisting of a cross section of all ranks and disciplines could more effectively create a mid-term organizational development plan.

A customer-centered fire department strategic plan would normally include the following components:

- Development of a mission statement
- Development of a vision for the future
- Establishment of organizational values
- Identification of department's strengths
- Identification of department's weaknesses
- Identification of opportunities for the department
- Identification of potential threats to the department

- Definition services provided to the community
- Establishment the community's service priorities
- Establishment the community's expectations
- Identification of community concerns about the department and its services
- Identification of aspects of the department the community views positively
- Establishment of goals and objectives for the future
- Identification of implementation tasks for each objective
- Definition of service outcomes with measurable performance objectives and targets
- Identification of organizational and community commitment to the plan

Figure 17 summarizes the current strategic planning practices of the three agencies.

Figure 17: – Strategic Planning Practices

Component	BFD	CKFR	SKFR
Up-to-date organizational strategic plan in place[+]	No	Yes	Yes
Strategic plan regularly reviewed	N/A	Yes	Yes
Organizational mission statement adopted[+]	Yes	Yes	Yes
Organizational vision statement adopted[+]	Yes	Yes	Yes
Organizational values statement adopted[+]	No	Yes	Yes

[+] *Required for CPSE Accreditation.*

Organizational Planning Processes

The process of planning for future needs requires both discipline and organization. In order to be truly effective, an emergency services agency must consider planning on three distinct levels - operational, tactical, and master planning. Operational planning is preparation for the day-to-day activities of the agency and its integration into other regional or national response networks. Tactical planning is practical preparation of incident strategies for potential emergency incidents. Master planning (long-range planning) is preparation for the agency's future success and effectiveness in a changing environment.

Tactical Planning

A firefighter's typical work area is usually quite foreign to him or her. Normally, a firefighter's first visit to a building is when the building is involved in a fire or other emergency. This is also the point in time where the internal environment is at its worst. Contrary to Hollywood's portrayal of the inside of a building on fire, visibility is at or near zero due to smoke. A lack of familiarity with a building can easily lead a firefighter to become disoriented or injured by an unfamiliar internal layout or by equipment or other hazards that might be encountered.

It is critically important that firefighters and command staff have comprehensive, accurate information readily at hand to identify hazards, to direct tactical operations, and to use built-in fire resistive features. The best way to compile and update this information is to develop building familiarization tours, to create pre-fire (pre-incident) plans, and to conduct tactical exercises either on-site or by tabletop simulation.

National Fire Protection Association 1620 provides excellent information on the development and use of pre-incident plans and should be used as a reference.[18] Once pre-plans are established and updated, training should be provided to all personnel who may respond to an incident at target hazard locations.

Emergency services exist in a rapidly changing, 'all risk environment'. With improved methods of providing service come increased regulation of activities, new risks to protect, and other challenges that can quickly catch the unwary off guard. Only through continuous internal and external environmental awareness and periodic course corrections can an organization stay on the leading edge.

Disaster Planning

The Kitsap County fire agencies enjoy local and regional mutual aid and automatic aid agreements with neighboring emergency services organizations. Aid agreements, contracts, and inter-governmental agreements are currently in place and are regularly utilized.

Kitsap County and the city of Bremerton maintain formal responsibility for emergency management of disasters and serve as the Local Emergency Planning Committee. All three agencies have internal disaster planning policies and have individual EOC capabilities as well.

It is important to note that in region-wide disasters – despite the best intentions of a city or county disaster plan – *smaller* jurisdictions are consistently overlooked for at least the first 72 – 96 hours of a disaster as resources are funneled into larger population centers. Communities understand this fact and prepare plans, resources, communications, and management components to be self-sufficient and to provide for their own continuity of government services. Therefore, it is vital that local jurisdictions conduct a disaster risk analysis and develop departmental disaster planning processes.

The Superfund Amendment and Reauthorization Act found in Title III of the Federal Code (SARA Title III) defined requirements for the tracking of hazardous materials used in fixed facilities and established

[18] NFPA 1620: Recommended Practice for Pre-Incident Planning, 2003.

requirements for emergency response planning. The Kitsap County Department of Emergency Management facilitates the Local Emergency Planning Committee (LEPC), which is responsible for the Kitsap project agencies. The LEPC is responsible for identifying and collecting information on the public and private use of hazardous materials. Information collected includes the type, quantity, and location of this material. Additionally, the LEPC is charged with ensuring that local response plans are adequate, based on potential risk, and that they are updated annually.

SARA Title III requires extremely hazardous substance (EHS) facilities to develop comprehensive emergency plans for the facility. (EHS facilities are those using more than the threshold limit established for certain materials.) SARA requires that local fire departments coordinate with the involved industries to ensure quality responses to emergencies.

The BFD, CKFR and SKFR, in concert with the Kitsap County Department of Emergency Management (DEM) and the LEPC, need to confirm that all EHS facilities within their service areas have been identified to ensure that local plans has been developed and that fire department operations have been coordinated with each local plan. Additionally, the fire agencies should regularly confirm that mandated Tier II reporting forms are being received, reviewed, properly filed with the Department of Ecology, and available for training and use during emergency responses. At a minimum, pre-incident planning should include the cataloging and identifying of all occupancies with hazardous materials and hazardous processes. BFD, CKFR & SKFR maintain Tier II information provided by the owners/occupants on file and forwards the information to crews for review/awareness. These are also being included on the pre-fire plans as they are developed.

Master Planning and External Customer Planning Involvement

Master planning is different from organizational strategic planning in that it is a more technical tool based upon current conditions, current organizational performance, and future projections of a jurisdiction's population, demographics, future community land use/growth, and the subsequent impact on emergency services. Master planning involves the establishment of a 'standards of coverage' doctrine with certain response performance requirements that must be met. A master plan evaluates the current performance of a fire agency against these adopted response performance standards. The master plan, after modeling the future growth of a jurisdiction, projects the future incident workload of a community against these standards identifying the resources necessary to meet the established standards of coverage (performance standards) and future performance objectives.

Because the community is the recipient of services and the source of funding for services, its needs and expectations must be a key consideration in selecting the type and level of services provided. Though efforts are made to solicit these views, fire agencies need to consider additional involvement methods.

A well-crafted survey can provide invaluable information to the organization and should be considered. Surveys should be conducted periodically to ensure that the agency's knowledge of community expectations is current, and that any concerns are documented and dealt with appropriately.

Fire agencies may wish to consider establishing a citizen's advisory committee (or board) to provide advice and input to the agency and to elected officials on such matters as:

- Long-term strategies
- Staffing strategies
- New services and programs
- Performance objectives and targets
- Cooperative effort

This third-party approach can provide another perspective to agency needs and provide additional credibility to fire district budgetary, policy, and resource requests.

Internal Customer Planning

The employees and members of a fire agency are also, in a fashion, customers of the organization. They depend on management and support personnel for the tools, training, and support that they need to be successful.

Fire departments have developed internal committees to focus and plan specific management programs for the fire department. Comprised of labor employees and managers, these committees usually include:

- Deployment Task Force
- Capitol Improvement Committee (CIP)
- Long Range Planning Committee
- Policy and Procedures Committee
- Joint Committee of Personnel and Special Events

In addition, fire departments have operational committees that assist with oversight and maintenance of the department's specific operational needs. These committees may address the following functions:

- Fitness

- Apparatus
- Safety
- SCBA
- Training
- EMS
- Hazmat

Figure 18 summarizes the planning practices of the three agencies.

Figure 18: – Operational, Tactical, and Master Planning Practices

Component	BFD	CKFR	SKFR
Up to date organizational planning process in place[+]	No	Yes	Yes
Organizational plan regularly reviewed	N/A	Yes	Yes
Tactical planning policy in place[+]	No	No	No
Community risk analysis conducted and up to date[+]	Partial	Partial	Partial
Community target hazards identified[+]	Yes	Yes	Yes
Pre-incident surveys and pre-fire plans in place[+]	Yes	Yes	Yes
Pre-incident plans regularly updated	Some	Most	Most
Pre-incident plans periodically trained with	No	Some	Some
Major event tactical planning process in place	Yes	Yes	Yes
Local disaster planning in conjunction with county/city conducted[+]	Yes	Yes	Yes
Local EOC established	Yes	Yes	Yes
Master planning efforts in place	No	No	No
Internal customer planning	Limited	Some	Some

[+] *Required for Accreditation.*

Internal Communications

Quality communications is an achievable goal for any organization, but one that always seems to need improvement. Regular staff meetings are one of the best internal communications tools an organization can use. Such meetings encourage the sharing of ideas, issues, concerns, feedback and encourage a collaborative approach to overall department management. Minutes or summaries of staff meetings should be made available for review by all members of the organization.

Written, formal memorandums are regularly utilized for distribution of information, ensuring that all members receive critical data in an organized and consistent fashion. This process also provides a written record of internal communications that is important to organizational efficiency. Systematic distribution of written communications is somewhat inconsistent as some materials are distributed electronically while others are on paper. When certain types of critical memos or policies are released, a

system should be established for verification of the distribution to all personnel. This system provides a record of confirmation that the information was received and improves accountability.

Internal newsletters provide an excellent opportunity for distribution of agency news and information, as well as less formal information about members such as birthdays, marriages, or personal off-duty accomplishments. Though such newsletters require significant effort, they have proven very beneficial in organizations that utilize them.

Business email addresses have been issued to appropriate personnel, offering an efficient and verifiable method of information distribution. Station/shift mailboxes are used to exchange important hard copy documents and prevent missing or misplaced documents. Voicemail has been put in place for primary staff and officers permitting other members or the external customer to efficiently and quickly leave messages.

An organizational intranet website is an excellent tool and additional means of distributing information and communicating with the internal customers. As long as the website is regularly updated and policies are in place for access and information posting, members and employees may access the site both during work hours and while off duty for updated information and announcements.

Figure 19: – Internal Communications Practices

Component	BFD	CKFR	SKFR
Internal communications policy in place	No	Yes	No
Regular staff meetings held	Yes	Yes	Yes
Periodic departmental meetings held	No	No	No
Periodic work group meetings held	Yes	Yes	Yes
Minutes of internal and public meetings available and posted	Yes	Some	Some
Department intranet website established	No	Yes	Yes
Department internal email system in place	Yes	Yes	Yes
Employee/member mailboxes	All	Some	Some
Internal departmental memo's posted	Yes	Yes	Yes
Internal newsletter	No	Yes	Yes
Bulletin boards in place in all facilities	Yes	Yes	Yes
Bulletin board information up to date	Some	Some	Some

External Communications

Fire agencies are in stiff competition with other community efforts for the support and interests of the public. Now more than ever, fire departments must reach out and communicate with their external customers with information and to solicit input and support.

There are a number of venues in which successful fire departments have funneled their communication efforts externally in order to accomplish this. Internet websites have been developed that not only provide marketing information for fire department efforts, but also provide seasonal information, activity announcements, and even allow users to conduct some limited business as a matter of convenience (fire permits, etc).

Some fire agencies still produce a periodic newsletter for the community or regularly post articles in the local newspaper. This has some limitations as most residents are bombarded with written material and organizational newsletters.

Other efforts include regular public meetings or surveys to solicit information from the citizenry as to their priorities and concerns. This is also accomplished through the strategic planning process. Some jurisdictions move the location of their governing officials' (fire commissioners, directors, etc.) regular meetings from fire station to fire station, inviting the local public to attend.

All three Kitsap agencies participated in a local outreach program called Fire Ops 101, where citizens and community leaders were invited to spend a 'day in the life of a firefighter'. The program is a good example of community outreach. Figure 20 provides a summary of external communications practices for the three agencies.

Figure 20: – External Communications Practices

Component	BFD	CKFR	SKFR
External communications policy in place	No	No	No
Periodic community meetings held	Yes	Yes	Yes
Periodic community newsletters sent	No	Yes	Yes
Periodic community committees used	Yes	Yes	Yes
Department website established	Yes	Yes	Yes
Community surveys conducted	No	Yes	Yes

Risk Management

The goal of risk management practices to safeguard the assets of an organization is just as applicable to a fire department as it is to any business. Although its mission is to manage community risk, the fire service needs to be concerned with risk to itself as well. These risks can keep an organization from successfully completing its primary mission. The fire service is open to a variety of risks similar to those faced by every private organization.

There are interesting parallels between a fire department and private enterprise. A risk manager in the private sector tries to protect the assets of the enterprise and ensure that it can stay in business. Similarly, the fire department's risk management practices try to protect public assets (including personnel, facilities, equipment, apparatus, etc.) that ensure the department can continue to perform its mission.

As custodians of public funds, risk managers of fire departments must attempt to restrict any undesirable outcome or loss that may cost money, consume public dollars, or reduce the capacity to place those funds where they can be most effective.

Risk managers have known the simple truth of this process for years – "If it's predictable, it's preventable." This phrase provides the foundation for the process of risk management. By reviewing the past losses, the losses and experiences of other similar organizations, and the national standards created to prevent or mitigate such losses, a fire department can identify positive preventive actions that will keep the risk of loss of life or property at a minimum.

Risk Management Process

The Safety Officer typically is responsible for those items that directly affect personnel on duty and at training activities. The position is also designed to ensure that fire and EMS operations are conducted in a manner that is consistent with national standards and Washington State law governing firefighter health and safety, as well as locally adopted policies and Field Operating Guidelines.

A Safety Officer should assume responsibility for the following:

- *Conduct periodic safety and risk inspections/analysis of the department's facilities.*
- *Review and recommend changes to the department's rules, regulations, and SOGs to reduce potential risk exposures.*
- *Review contracts and agreements entered into by the department for potential risk exposure.*
- *Train officers at both the company and command level regarding emerging risks and national trends to assure injury and loss prevention.*
- *Conduct periodic reviews with the fire chief of risk coverage and concerns that could lead to increased risk, injuries, or loss.*

Within the Bremerton Fire Department, risk management is provided from a city management level. From an internal perspective, the Battalion Chief has been designated as the fire department's Safety

Officer; he also attends city safety meetings on behalf of the fire department. Both SKFR and CKFR have Safety Officers, but risk management efforts are somewhat minimal.

Employee Concerns

The employees' views, as expressed by members of IAFF Locals 437, 2819, 2876, and 3817 were fairly consistent and primarily included those related to risk management and safety. There is a concern both for implementing *NFPA 1500: Standard on Fire Department Occupational Safety and Health Program* and *NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Departments*.

In addition, there was concern raised over the quantity and quality of training and level of expertise amongst the volunteer firefighters by members of the career work force.

Local representatives expressed a desire to work with management on these issues but also expressed a desire to see the current management team address conflicts within the organizational culture that are barriers to changes in safety, training, EMS operations, and Homeland Security.

Labor representatives also expressed concern regarding inconsistent changes across the respective departments' divisions. They cited a lack of accountability or consequences when changes are not acted upon. It is the representatives' desire to see management teams work together and express a single philosophy, especially as it pertains to safety issues that can be consistently and fairly applied in both words and actions at the operations level.

Occupational Medical and Wellness Programs

Firefighting is a very stressful occupation that requires physically and medically fit personnel to perform difficult tasks in a safe yet effective manner. Approximately 50 percent of firefighter fatalities come from heart attacks. Of those deaths, nearly 50 percent had pre-existing heart conditions. It is clearly in the interest of the department and the individual firefighters to ensure programs are in place to review and support high levels of medical and physical wellness and fitness.

Annual medical evaluations for all operational personnel should be based on *NFPA 1582: Standard on Comprehensive Occupational Medial Programs for Fire Departments*. Such medical evaluations should assist in the determination of conditions among individuals that may lead to future workers' compensation or medical needs and to help assess individuals toward developing personal wellness goals and future fitness levels.

An ongoing fitness program is an important aspect of the overall wellness for individual firefighters. *NFPA 1583: Standard on Health-Related Fitness Programs for Firefighters* provides excellent guidance to develop comprehensive fitness screening, improvement, and maintenance programs. Another good source of guidance is the Wellness/Fitness Initiative jointly produced by the International Association of Fire Chiefs and International Association of Firefighters. No program, however, is worthwhile unless it is monitored and charted by wellness coordinators. *NFPA 1500* recommends and WAC 296-305 requires an active occupational safety and health committee.

The Bremerton Fire Department participates in the citywide committee that meets regularly with management over occupational medical and wellness issues. Preventative programs, training, and recommendations need to be developed and implemented within BFD. SKFR and CKFR have more formal occupational medical and wellness programs.

Personnel Management

An organization's people are its most valuable resource. If careful attention is paid to managing this resource, an organization can achieve maximum productivity and maximum employee satisfaction. A safe working environment, fair treatment, and recognition for a job well done are key components to an employee's happiness at work.

Personnel Policies and Rules

In addition to employee benefits, job classifications, performance appraisals, and all other aspects of employee work life, human resource (HR) departments may also be responsible for organizational training programs, negotiations with labor unions, and policies on employee use of agency-owned vehicles. Because HR departments handle so many issues, it is important that members of the organization know to whom they should go when they have a problem, question, or issue related to their employment or any assignment benefit. All three agencies have identified the HR contact in their organizations.

In all three agencies, written policies are in place; the collective bargaining agreements adequately describe the appointment of employees or members, the salary and benefits to which they are entitled, the conditions under which leave time may be utilized, systems to rate personal performance, processes, and qualifications for promotion to higher positions, and systems for grievance. As indicated earlier, these policies have been made available to each member.

Disciplinary Process

A formal progressive disciplinary process for personnel should be identified in either a personnel handbook or the fire department's Standard Operating Procedures (SOP). The SOP should clearly describe the purpose for a disciplinary process, the reasons for disciplinary action, and the levels of disciplinary action that can be taken. Some references to discipline are often time codified in collective bargaining agreements.

A multi-level grievance and appeals process should be described in a personnel handbook or SOP and should afford the member who feels aggrieved the opportunity to have his/her issues heard by the authority having jurisdiction. The procedures described by the Kitsap agencies are typical of most municipalities and districts.

Counseling Services

Emergency services bring otherwise ordinary people into life and death situations that many times end very tragically. Even though department personnel are trained responders, they do not have an impregnable shield that prevents them from being affected by traumatic events.

Fire and EMS departments have recognized the need to provide a support system for their personnel who are exposed to traumatic incidents. Failure to provide that support can ultimately lead to the loss of a valuable employee and could have a devastating impact on that individual's family. In Kitsap County, all agencies can call upon the services of trained personnel to conduct critical incident stress debriefings (CISD) through the Kitsap County CISD team, which is accessible through CENCOM or through EAP. Critical incident stress interventions are short-term processes. Frequently, long-term support is needed.

During the review of the Kitsap agencies, it was noted that the Bremerton Fire Department does not have a formal employee assistance program, while the fire districts have a multi-level program in place that is funded by the annual budget. This program includes a process for counseling personnel.

Figure 21 provides a summary of the Kitsap agencies' personnel management practices.

Figure 21: – Personnel Management Practices

Component	BFD	CKFR	SKFR
Personnel rules and/or handbook in place[+]	Yes	Yes	Yes
Personnel rules updated periodically	No	No	Yes
Periodic training with current personnel rules	No	No	Yes
Disciplinary process in place[+]	Yes	Yes	Yes
Discipline policy up to date	No	Yes	Yes
Discipline policy reviewed by legal counsel[+]	Yes	Yes	Yes
Discipline policy reviewed with members periodically	No	No	Yes
Periodic discipline training and practice for supervisory personnel	No	No	No
EAP program available to employees[+]	Yes	Yes	Yes
CISD/counseling service available to personnel	Yes	Yes	Yes

[+] *Required for CPSE Accreditation.*

Training

Providing quality and safe fire and emergency medical services requires well-trained personnel and officers. Training and education must be an essential part of any fire service organization, and this should be a critical function of any fire department. Without quality, comprehensive training programs, emergency outcomes are compromised and department personnel are at risk. Further, without an educational path for members to follow, there is no continuity or consistency in leadership or leadership development.

Anthony Granito, author of *Fire Service Instructor's Guide*, makes the following statement:

> *"A good training program is undoubtedly the single most important factor producing and maintaining a high proficiency in any fire department. It not only produces high efficiency initially but also affects future efficiency when we consider that the rawest recruit now being trained may be chief of the department or at least a senior officer in 20 or 30 years."*

While learning by experience may be a reinforcement of hands-on skills, it is a slow process that can never lead to broad subject knowledge. Although individual experiences may develop competency and the ability to perform routine tasks, it can never yield insight into the wide range of possibilities likely to be encountered during emergency incidents.

The function of a training program is not merely imparting personal knowledge and technical skills to an individual, it is developing the self-confidence to perform correctly under stressful if not hostile conditions. A training program must be systematic and must provide positive feedback to the trainee, firefighter, or officer. The goals of training should always focus on performance, never merely on acquiring a certain number of training hours. Key elements of an effective training program should include:

- Training administration
- Training personnel

- Minimum training requirements
- Certifications
- Training schedules
- Training facilities
- Training goals and objectives
- Motivation for training
- Methodology for success
- Company operations and performance
- Varied types of reinforcement
- Member-targeted training
- Organizational priority to training
- A career development path
- Periodic competency evaluations
- Peer group commitment to training

Training Delivery

BFD, CKFR and SKFR are members of the Kitsap County Training Officer's Consortium (KCTOC). The KCTOC has a basic-level, all-risk training program that includes policies, manuals, and competency testing. ESCi evaluated the training programs of the three project agencies, including training organization, curriculum, records, and facilities.

All three agencies participate in the KCTOC program that is based on Firefighter I level competencies. KCTOC is revamping and expanding the curriculum and competencies. Career personnel will be provided a more advanced level of training to meet Firefighter II objectives, special operations, and career development.

A *Kitsap County Training Manual* has been developed with ten sections that include:

- Training Administration
- KCTOC Model Guidelines
- Training Schedules
- Instructor Guides
- SCBA Supplement
- Ladder Ops Supplement
- Hose Ops Supplement

- Passport Accountability Supplement
- Information Sheets
- Practical Skills Training Guides

During field inspections, it was evident that all three agencies actively embraced and participated in this countywide training program.

Ongoing Competency Evaluation

Once on staff, personnel should be evaluated periodically to ensure their continued ability to perform job duties safely and efficiently. Technical and manipulative skills should be evaluated on a regular basis. This provides documentation about a person's ability to perform his or her responsibilities and provides valuable input into the training and education development process.

Regular evaluation and feedback for personnel is critical to behavior modification and improvement. A formal performance evaluation system should be adopted for all members of the department and evaluations should be conducted, at a minimum, on an annual basis.

It is important to maintain such programs whenever possible. It has long been proven that employees and members sincerely wish to perform well and to be a contributing part of any organization. The desire to succeed is best cultivated through feedback that allows members to know what they are doing well or what needs improvement. BFD, CKFR, and SKFR personnel are well trained with their initial and on-going training schedules, which include aggressive competency testing.

Fire Prevention

An aggressive risk management program, through active fire prevention and fire code efforts, is the department's best opportunity to minimize losses and human trauma associated with fire and medical emergencies. The International Association of Fire Chiefs has defined proactive fire services as *"…embracing new, proven technology and built-in protection like automatic sprinkler and early detection systems, combined with an aggressive code enforcement and strong public education programs."* A fire department in the 21st century should actively promote fire resistive construction, built-in early warning and suppression systems, and an educated public that is trained to minimize their risk to fires, accidents, and medical emergencies.

The Bremerton Fire Department is a well established fire department with a progressive, fire prevention bureau. Central Kitsap Fire & Rescue and South Kitsap Fire & Rescue fire prevention/inspection

programs have evolved primarily out of necessity as the ineffectiveness and lack of commitment in earlier years by Kitsap County to address fire prevention or public education efforts caused the agencies to address the issue independently. Exacerbated by over a decade of growth, CKFR and SKFR were forced to take initiatives and commit resources in developing active and effective prevention/education programs. This program has been enhanced by a countywide effort of fire prevention officials forming a strong organization.

Fire Prevention/Fire Code

The Bremerton Fire Department employs a fire marshal to oversee the fire prevention activities and public education for the department. Each of the fire districts has also added full-time fire inspectors to their staff to enforce the latest codes that Kitsap County has adopted.

The BFD fire prevention program must contend with multiple versions of fire and building codes within its service area. Listed below are the current adopted codes of the city of Bremerton jurisdiction:

- 2000 International Building Code
- 2000 International Mechanical Code
- 1999 NFPA 72 Fire Alarm Code
- 1996 NFPA 13 Sprinkler Code
- 2002 National Electric Code
- 1998 International Maintenance Code
- 2003 International Residential Code
- 2005 National Electrical Code
- 2003 International Mechanical Code
- 2003 International Fire Code
- 2004 International Plumbing Code
- 2003 International Conservation Energy Code
- 2003 International Property Maintenance Code
- 2003 International Existing Building Code

The Bremerton Fire Department's Prevention Division is an active and progressive part of the fire protection package the city offers. It is well organized and staffed with three dedicated inspection/investigation personnel. Activities include inspection, education, investigation and code enforcement.

The Bremerton Fire Department does not employ the use of its fire companies or a self-inspection program to conduct inspections of some of its businesses. Fire companies could be utilized to conduct the annual inspection of light risk occupancies. This allows the on-duty crews to become more familiar with the occupancies in their first response area and pre-plan for such items as building construction, utility shut offs, and special risks such as physically challenged occupants. With current staffing levels and an increased demand for emergency services (addressed later in this report), the fire crews may not be available for these tasks.

Both SKFR and CKFR have dedicated staffing for fire prevention activities. In both fire districts, all commercial structures have records of annual inspections by the fire agencies; there were active new construction/development plan reviews and other activities conducted to keep the fire districts abreast of growth and new development. SKFR, as a part of an inter-local agreement with the city of Port Orchard, provides fire prevention activities and enforcement. The Kitsap County Fire Marshal's office also provides inspection services, though there has been a major turn-over in staffing in the last 24 months.

Public Education

Most comparable fire department offers programs in public education that include:

- 9-1-1 Notification
- Exit Drills in the Home (EDITH)
- Smoke Alarms
- Fire Safety
- Injury Prevention
- Fire Extinguishers
- CPR
- School Programs
- Safety for the Elderly
- Bicycle Safety
- Gun Safety
- Home Safety

Employing Public Education programs has shown that communities that invest in community programs like these have a safer community, better public relations, and a measurable decline in 9-1-1 incidents. A proactive public information program can develop media contacts and rapport that can be used when the department's needs require press involvement. A public education/information program can actively promote the department and seek opportunities that present it in a positive light. For example,

demonstrating what burning a Christmas tree can do during the holidays for a television station not only generates a strong fire prevention message, it establishes credibility between the media and the department that may be tested during an actual emergency. A knowledgeable media may seek an active PIO for background information whenever an issue involves the fire service.

The Bremerton Fire Department is significantly under-resourced to provide this valuable service to its community. While the fire marshal strives to provide a professional level of service, it is mathematically impossible for three people to take on a program of this magnitude with much success. These are important service and community education opportunities that are not being accomplished in a measurable fashion that can have potentially positive impacts on the reduction in the demand for service and improvement of the fire department's image and public support.

Both CKFR and SKFR have active public safety education programs and have dedicated employees to the degree that they have been able to commit significant time, money, and resources to the programs. CKFR has company-level public education activities such as reading programs, career days, ice cream socials for the public, egress training at schools, Touch-a-Truck events, CPR classes, etc. SKFR provides public education activities at the company level with on-duty crews getting public exposure and on-going programs such as CPR classes and other prevention courses.

Capital Assets and Resources

Fire departments need a balance of three basic resources to successfully carry out their emergency mission - people, equipment, and facilities. Because firefighting is an extremely physical pursuit, the adequacy of personnel resources is a primary concern; but no matter how competent or numerous the firefighters, the organization will fail to execute its mission if it lacks sufficient fire apparatus distributed in an efficient manner.

Generally speaking, all of the fire departments are adequately equipped for the communities they serve. Collectively, the three fire agencies have 31 fire stations and several auxiliary facilities.

When viewing the three Kitsap County fire agencies through the NFPA comparable matrix, Figure 22, Figure 23, and Figure 24 give a general picture of how the agencies compare in facility and apparatus resource capabilities. As seen below, SKFR is above the national median for fire stations and fire engines (pumpers).

Figure 22: – SKFR Resources, National Comparables

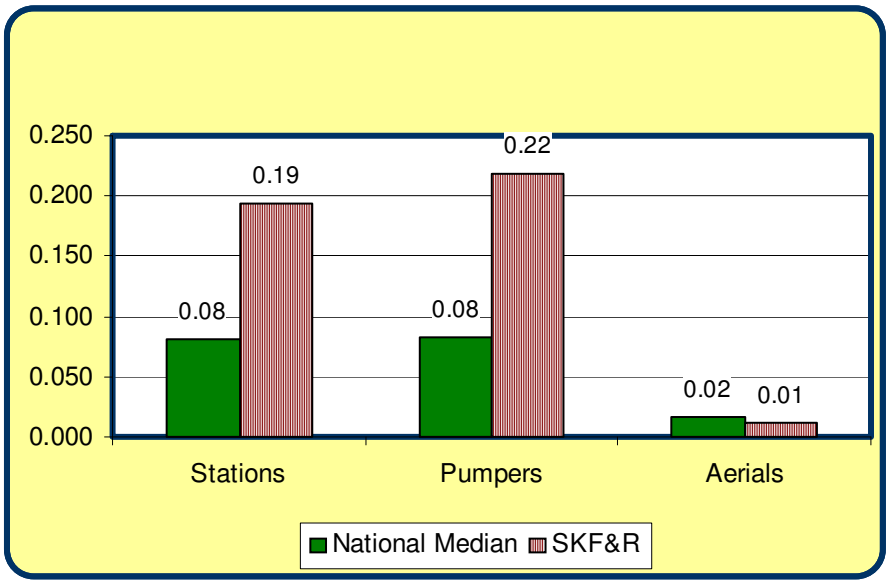
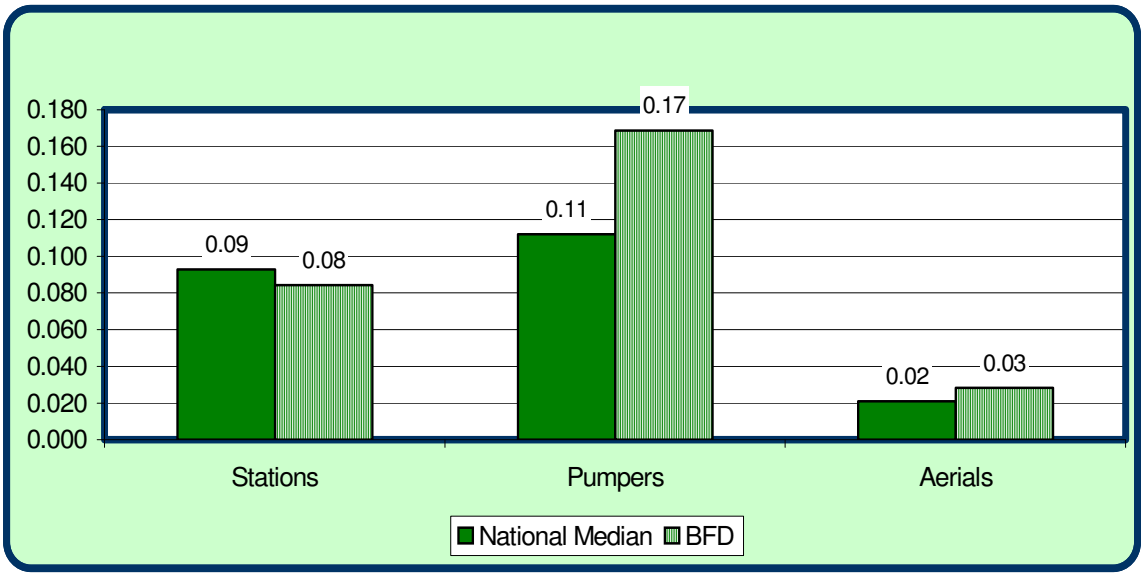


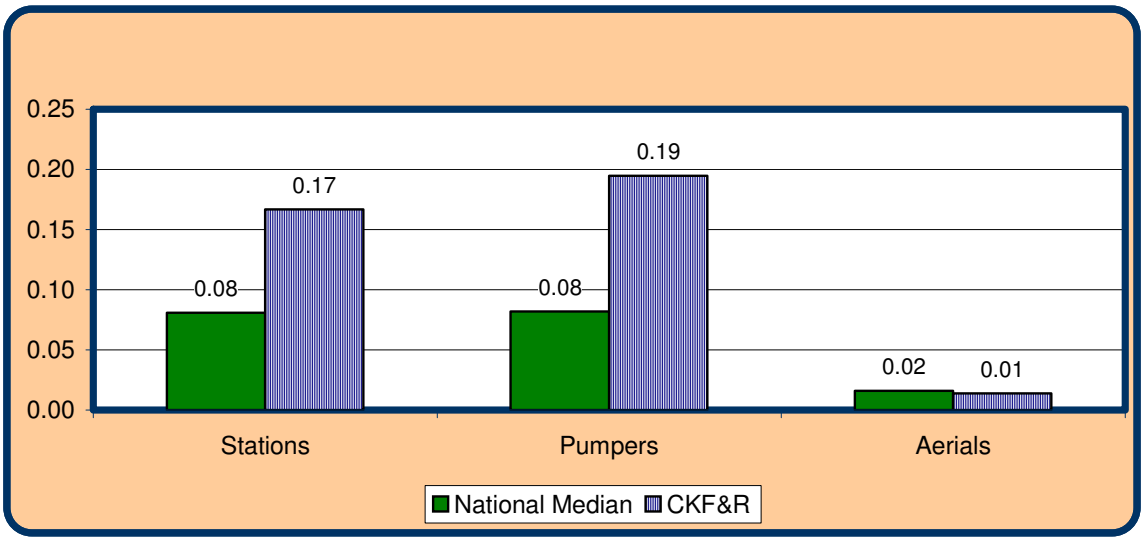
Figure 23 illustrates that the Bremerton Fire Department is equal to the median of like fire agencies for number of fire stations. With regard to pumpers, it joins the other two Kitsap County agencies with a higher than national average number of fire engines. It was noted that BFD also had a slightly higher than median aerial ladder truck ratio as well.

Figure 23: – BFD Resources, National Comparables



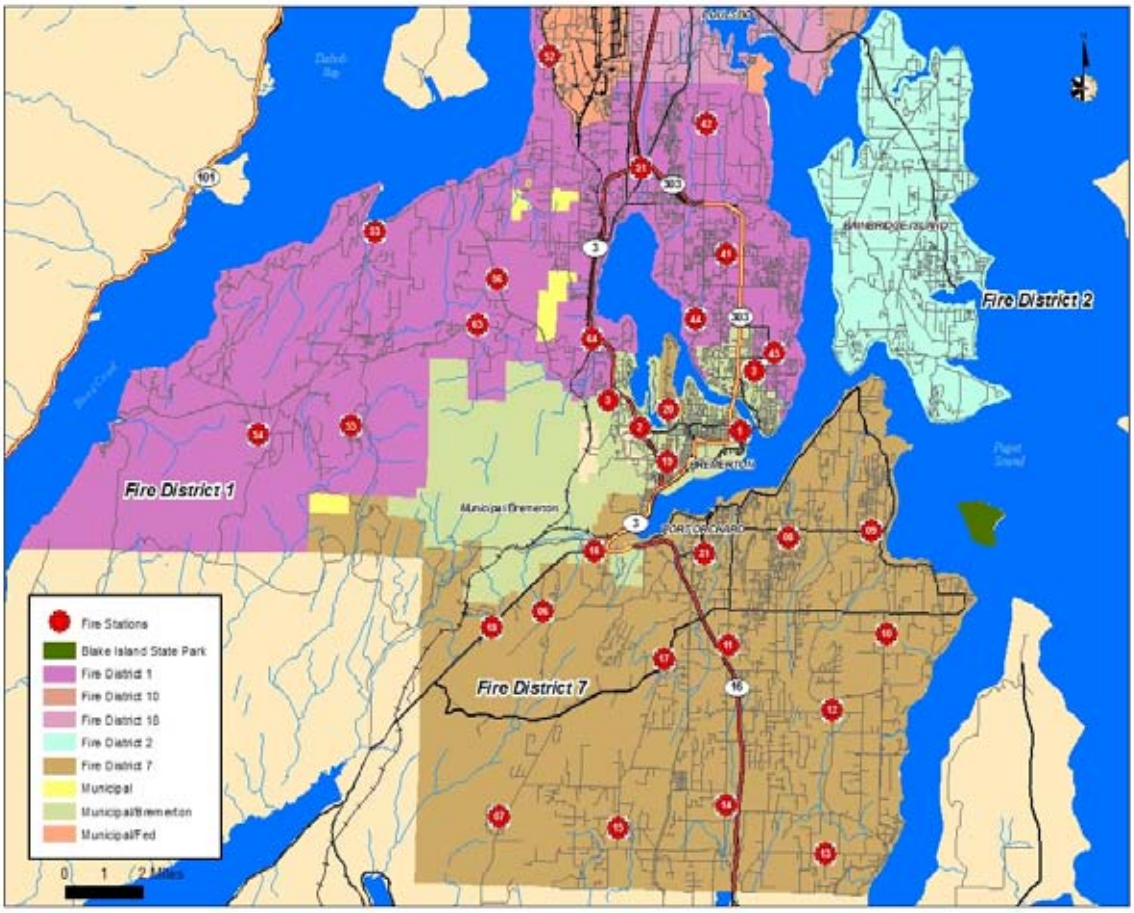
The final look at comparable resources is with CKFR. In Figure 24, Central Kitsap Fire & Rescue again is above the average in terms of fire station and apparatus figures.

Figure 24: – CKFR Resources, National Comparables



For the two fire districts, it would make seem logical to see the number of facilities exceed the regional median simply because both of the jurisdictions are a result of a number of mergers of individual fire departments with fire stations and apparatus. Additionally, both fire districts are a product of an aforementioned study where the countywide goal for Kitsap County fire agencies was to locate fire stations no more than five road miles apart from populated suburban areas. While this standard is difficult and expensive to attain, a general overview of Kitsap County fire stations displays a fairly close adherence to that goal for fire services. The following Figure 25 illustrates this point.

Figure 25: – Kitsap County Deployment Map



Facilities

There are a lot of questions facing a department as it considers the future viability of its facilities, and the solutions are often complicated. While volunteer, career, and even combination departments have different facility requirements, there are basic needs that all fire stations must address.

Consideration should be given to the ability of the facilities to support the functions of the department as it may exist today and in the future. The primary functions that take place within the fire station environment should be closely examined and adequate, efficient space for all functions should be provided. Considerations would include:

- Adequate site and building security
- Communications capability
- Adequate space for apparatus
- Residential living for on-duty crew members (male and female)
- Light maintenance of equipment

- Adequate cleaning and decontamination facilities for equipment
- PPE cleaning equipment and drying facilities
- Administrative office area
- Self-contained/self-sufficiency capabilities
- Disaster supplies and capabilities
- Fire/EMS personnel training
- Wellness activities
- Storage
- WSRB requires a water tender within five miles

An inspection, evaluation, and general condition assessment was conducted on the 31 Kitsap County fire facilities and the auxiliary facilities. It should be noted that this study is not a full facilities assessment as would be conducted by an engineer or architect. Such a study would be far more detailed than the evaluation conducted for this report, and the department should consider the recommendations of an architect or engineering study as final authority in issues of condition and need. This focus is on operational conditions, efficiency, safety, staff space needs, and self-sufficiency. This particular section of the report deals only with analysis of current facilities. However, ESCi is recommending development of a full long-range facilities management plan, as well as specific plans to address any current problems.

A long-range facilities management plan should include a variety of items, such as:

- Community risk analysis
- Evaluation of local comprehensive plan for growth and land use projections
- Establishment of a reasonable standards of coverage policy
- Development of deployment model for the respective jurisdiction
- Location, timing, and cost of any new facilities
- Identified long-term maintenance needs for existing facilities
- Ongoing funding plan

The ESCi Facilities Evaluation for all BFD, CKFR, and SKFR facilities is included in CD-ROM format.

Staffing

The Bremerton Fire Department uses career personnel to accomplish its operational mission and responsibilities to the city of Bremerton. CKFR and SKFR use a combination of career and volunteer personnel to accomplish the same.

The evaluation of a fire department includes profiling and evaluating the quantity and organization of two typical work groups. Those groups would be 1) the *operational* or *line personnel* who are generally assigned to respond to emergency and non-emergency requests for service from the community via the 9-1-1 system and maintaining a state of readiness to do so; and 2) the fire prevention, public education, life safety, and administrative/support personnel who run the business and support functions of the organization. Both groups are vital to the success of delivering services to both the internal and external customers of the fire department.

In a municipal (city) fire department, *administrative* functions are generally the responsibility of staff officers with support functions provided by administrative and clerical employees -- some of whom do not work in the fire station but are staff personnel at 'city hall'. Administrative and support services staffing for fire districts is all inclusive.

Administration and Support Staff

One of the primary responsibilities of the fire department's administration and support staff is to ensure that the operational entities of the organization have the ability and means to accomplish their responsibilities on the emergency incident. These are generally referred to as 'internal customer' services. Efficient and effective administration and support are critical to the success of any fire department. Without sufficient oversight, planning, documentation, training, and maintenance, the operational entities of the department will fail any operational test. Additionally, like any other part of the department, administration and support require appropriate resources to function properly.

The appropriate balance of the administrative and support personnel to the operational component is crucial to the success of the department's mission and responsibilities. There is a long list of fire department administration operations and support functions. Those functions would include but are not limited to:

- Leadership/Vision
- Risk Management
- Safety and Loss Prevention
- Personnel Management/HR

- HIPAA Requirements
- Logistics/Supply
- Ambulance Billing
- Technology
- Training
- Facilities
- Records Management
- Finance
- Fleet Maintenance

From a practical standpoint, each of the above functions does not necessarily require a full-time person be assigned to it. In most organizations, these functions are divided among several staff officers and administrative personnel.

In city fire departments, the administrative and support staff ratio is commonly found to be lower when compared to fire districts serving similar sized communities. As noted, that fact is relative to the size of the respective city fire department's city support services. Not so with fire districts, which provide nearly all administrative and support services unless they are outsourced to another public entity or vendor.

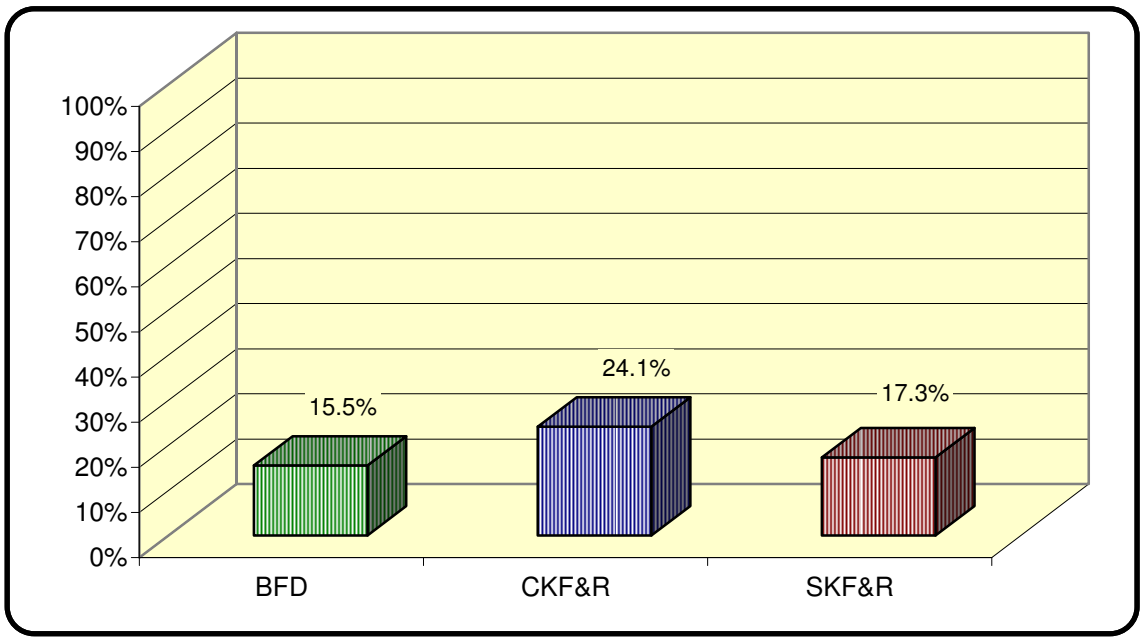
Figure 26 is the staffing assignments for Bremerton Fire Department, Central Kitsap Fire & Rescue, and South Kitsap Fire & Rescue. While not all positions are detailed, the number of FTEs for each agency is.

Figure 26: – Administrative/Support Staffing Chart, Kitsap County Agencies

Staff Position	BFD	CKFR	SKFR
Executive Staff			
Fire Chief	1	1	1
Deputy Chief	0	0	1
Assistant Chief	1	2	0
Division Chief	0	1	0
Battalion Chief	1	1	2
Captain	1	0	0
SUBTOTAL	4	5	4
Prevention			
Fire Marshal	1	0	0
Inspector	2	2	2
Public Education	0	1	0
SUBTOTAL	3	3	2
Administration Staff			
Admin Director	0	1	1
Finance/HR	0	1	0
Staff Assistant	0	4	0
Admin Ass't/Secretary	2	2	3
Finance Assistant	0	0	2
IT Tech	0	0	1
SUBTOTAL	2	8	7
Support Staff			
Maintenance Supervisor	0	1	1
Mechanics	0	2	2
Facility Supervisor	0	0	1
Facilities Maintenance	0	1	1
Logistics	0	1	0
SUBTOTAL	0	5	5
TOTAL	**9**	**21**	**18**

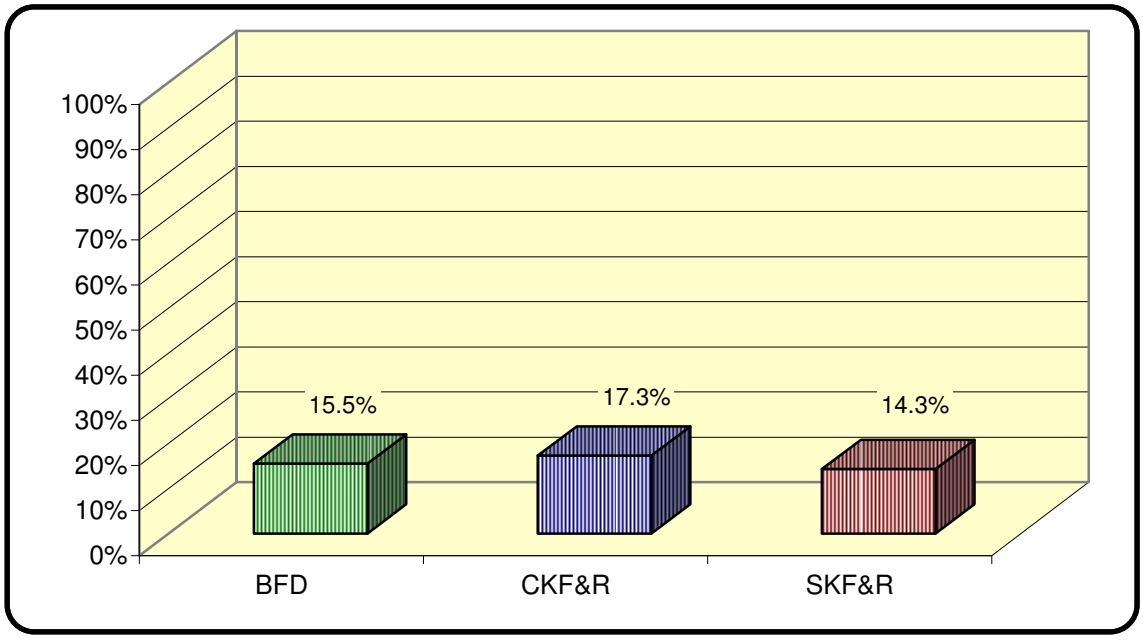
Figure 27 illustrates the current administrative staff ratio to the total career FTEs of each agency.

Figure 27: – Percent of Administration and Support to Total Career FTEs



In this next figure we include volunteer positions, which also require administrative support.[19]

Figure 28: – Percent of Administration and Support to Total Personnel



[19] This calculation uses the ISO equivalency of three volunteer members equaling one FTE position.

Based on our experience with similar organizations, a ratio of 12 to 15 percent administrative and support compared to the total number of personnel is common with municipal fire departments. The ratio for fire districts is more often in the 15 to 20 percent range. A marginally lower percent is expected for cities as they are often the beneficiary of some municipal services that may or may not be charged back.

The percentages vary and the ratio may occasionally reach 20 to 25 percent: depending entirely on the services provided and circumstances unique to the local entity.[20] For instance, the Kitsap fire agencies have made organizational commitments to EMS transport and the fire prevention functions. We believe that each agency should determine the proper ratio of administrative/support and emergency positions dependent on local need.

While it is common for certain administrative personnel to be assigned responsibilities on the emergency scene, such duty should constitute only a fraction of the overall time spent on the job; however administrators in the Kitsap fire agencies frequently spend time in emergency operations. This can detract from their ability to focus on department administration duties.

Operational Staffing

It takes an adequate and well-trained staff of emergency responders to put the appropriate emergency apparatus and equipment to its best use in mitigating incidents. Insufficient staffing at an operational scene decreases the effectiveness of the response and increases the risk of injury to all individuals involved. The following figure summarizes the personnel assigned to street-level service delivery.

Figure 29: – Operational Staff, Kitsap County Agencies

Operational FTEs	BFD	CKFR	SKFR	Total
Battalion Chief	0	3	3	6
Captain	3	4	0	7
Lieutenant	12	8	18	38
Firefighter/PM	15	19	15	49
Firefighter	19	32	36	87
Volunteer	0	103	52	155
Total	**49**	**169**	**124**	**342**

[20] Ratios may reflect inefficiency when they fall below 12 percent or extend much beyond 20 percent.

As emphasized earlier, delivering sufficient numbers of personnel to the *variety* of emergency scenes for *all* types of incidents to accomplish *all* the various tasks that are required to effectively control an emergency is essential. Insufficient staffing at an emergency scene *decreases* the effectiveness of the response and *increases* the risk of injury to all individuals involved. For example, tasks that must be performed at a working structure fire can be broken down into three key components—life safety, incident management, and fire flow. Life safety related tasks involve the search, rescue, and evacuation of victims as well as the safety function to protect the firefighters.

Incident management tasks involve organizing the emergency scene and emergency functions for maximum effectiveness with available forces that respond. The fire flow component involves delivering sufficient water to extinguish the fire and creating an environment within the building that allows entry by firefighters.

The number and types of tasks needing *simultaneous action* will dictate the minimum number of fire personnel required to combat different types of fires. This calculation is called *critical tasking*. In the absence of adequate personnel to perform concurrent actions, the command officer must prioritize the critical tasks and complete some in chronological order rather than concurrently.

Emergency incidents are unpredictable in many ways. While it is possible to state what critical tasks must be accomplished, it is not always possible to predict how many personnel it will take to accomplish those tasks. The number of personnel and the amount of equipment needed to accomplish the critical tasks listed will vary due to the following factors:

- Delayed responses
- Building construction
- Number of occupants
- Extent of fire beyond flashover
- Built-in fire protection
- Area of fire involvement
- Number of rescues
- Civilian injuries
- Firefighter injuries
- Physical and emotional condition of occupants

The Center for Public Safety Excellence (CPSE) has produced a sample critical tasking analysis for the number of personnel required on a fire scene for various levels of risk. Those tasks include:

- Command
- Water supply
- Scene safety
- Pump operation
- Search and rescue
- Ventilation
- Fire attack
- Back-up/rapid intervention

ESCi has gathered together a number of national studies and standards for staffing models and recommendations. Figure 30 provides insight into updated, modern, and scientific requirements and recommendations for sufficient operational staffing for a given fire department operation based upon extensive studies and industry standards.

Figure 30: – Staffing Benchmark Table

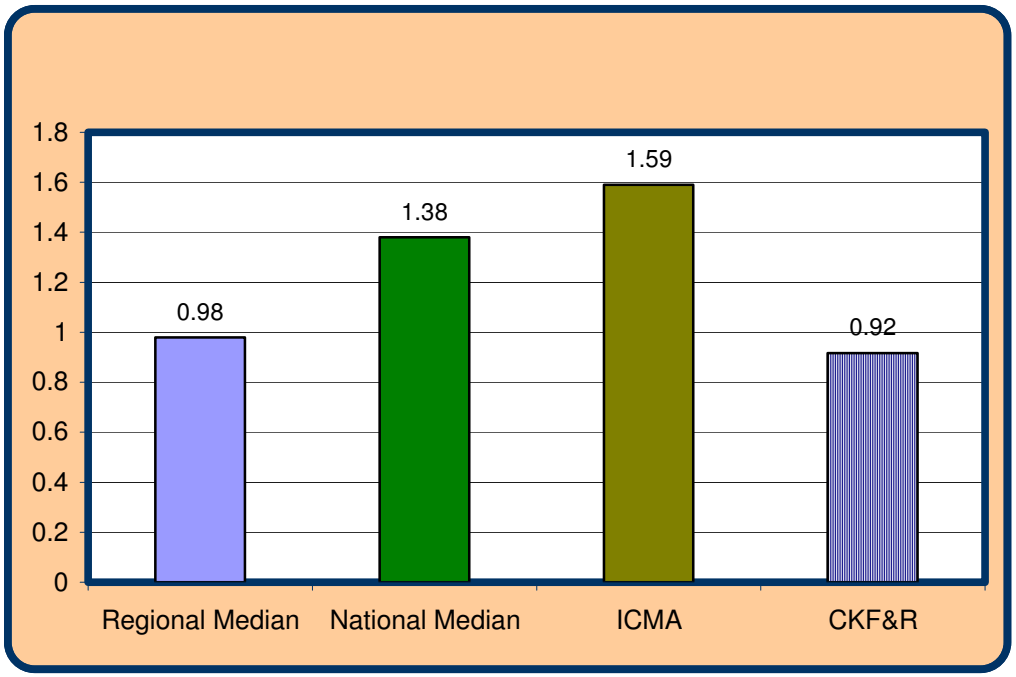
National Standard or Comparison	Organization or Study
Minimum effective company staffing is 4 firefighters	Dallas FD Study, Seattle FD Study, NFPA Standards, Federal OSHA
Engine company within 1.5 miles of built upon areas	WSRB
Ladder truck within 2.5 miles of built upon areas	WSRB
Staffed ladder truck if 5 or more buildings exceed 35' high	WSRB
Average fire ground staffing to be 15 firefighters for moderate risk fires (single family residential) and up to 53 for high risk fires (industrial, high risk unprotected residential, etc.)	Center for Public Safety Excellence (International Association of Fire Chiefs)
National average of on-duty personnel = .48 per 1,000 population	International City/County Management Association (ICMA)
National average total uniformed personnel = 1.59 per 1,000	ICMA
Arrive at structure fire prior to flashover (typically 5 to 7 minutes from ignition)	FEMA , National Fire Academy
Arrive at EMS call within 4 to 6 minutes of cardiac or respiratory arrest	American Red Cross; NFPA

Similar critical tasking analyses should be conducted for every type of potential emergency response for a fire department. This begins with a thorough community risk analysis. Subsequent to that community

risk analysis, a fire department should then follow up with a critical task analysis of those risks. Further discussion on this topic is included later in this report during the response analysis portion where extensive text is dedicated to standards of coverage and deployment plans.

An analysis of fire department staffing begins with a comparison of available emergency service personnel to other communities of similar size and organization. The following charts, using NFPA benchmark data for the region,[21] provides an overview of the staffing level of the Kitsap project fire agencies on the basis of firefighters per 1,000 population. Figure 31 and provide a good indication that CKFR and SKFR are experiencing *a lower than normal* levels of emergency response staff in comparison with other jurisdictions of similar size in the U.S. Western Region. Figure 31 demonstrates a comparison of CKFR fire personnel on a per 1,000 population ratio with the regional median of the United States and from a national comparison standpoint as well. As indicated in the figure**,** CKFR is lower than the three comparables relative to *career* fire personnel.

Figure 31: – CKFR Firefighters per 1,000 Population, National Comparables



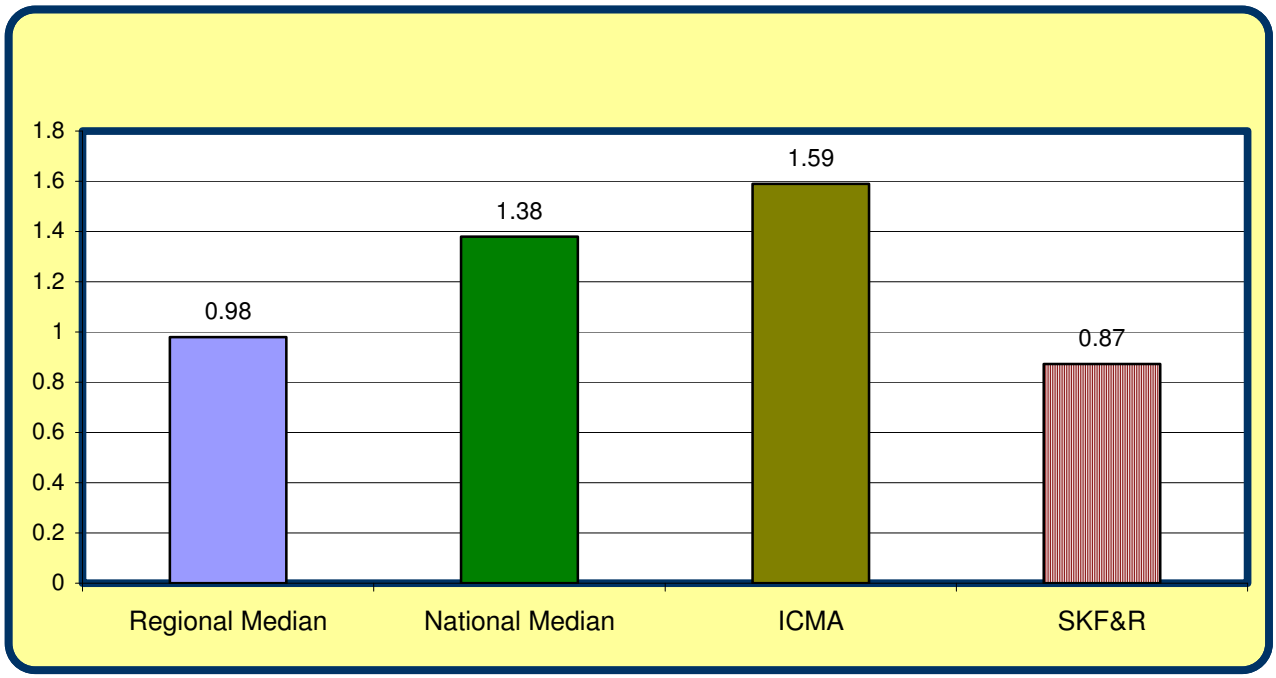
One must keep in mind when participating in a national or regional survey that many fire agencies do not provide the same level of care or the same services to their jurisdiction as the project agencies. In the case of the Kitsap County fire agencies, all three provide extensive BLS, ALS, and medical transport

[21] Comparison data is from the National Fire Protection Association's *Fire Department Profiles - 2003*.

services, which account for a high percent of their workloads. In other words, a portion of the fire departments in the national and western regional comparison may not provide the level of EMS that CKFR, SKFR, and Bremerton Fire Department currently provide. Additionally, in western regional comparative models shown later in this study, both CKFR and SKFR respond to as many as three times the number of incidents as their NFPA comparables.

Figure 32 also demonstrates the staffing comparison of SKFR and again reflects a deficit in both venues when comparing career staffing.

Figure 32: – SKFR Firefighters per 1,000 Population, National Comparables



As stated earlier, this is exaggerated by the fact that the SKFR personnel also provide all levels of EMS response and transport.

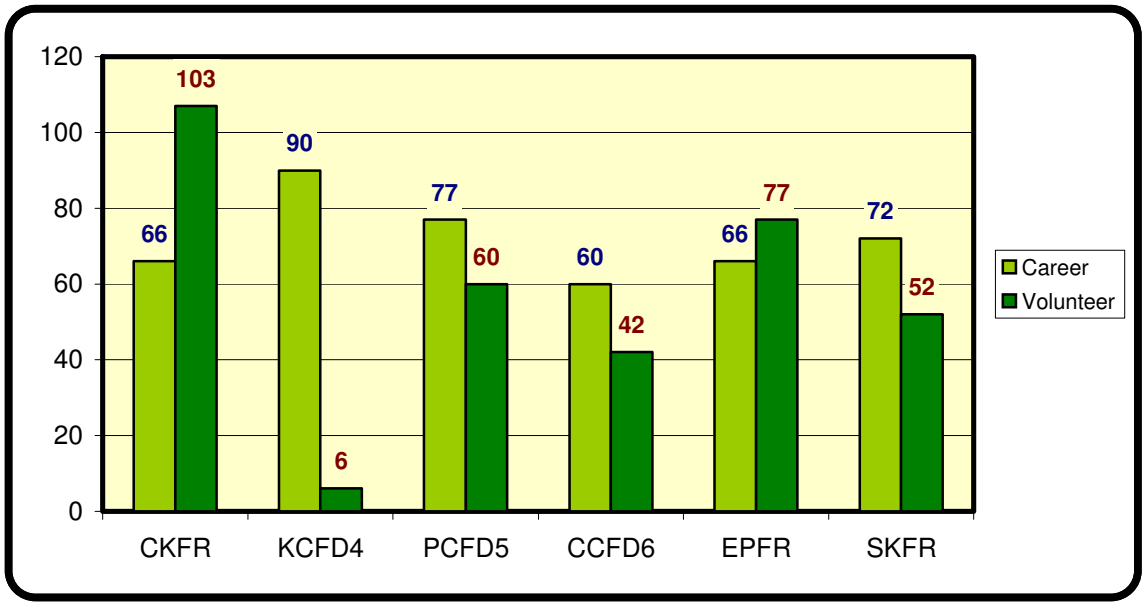
As an additional note, the International City Manager's Association (ICMA) places the nationwide average fire department strength at 1.59 per 1,000 population. Comparing CKFR and SKFR to that median, a more contrasting picture is portrayed.

As demonstrated in other areas of this analysis, ESCi provided additional comparative data based upon a profile of other western Washington fire agencies of approximate size to the Kitsap County agencies. Figure 33 illustrates a comparison of full-time and volunteer line personnel with other Puget Sound fire

agencies of comparable size. From a western Washington perspective, both fire districts in this study are comparably staffed when comparing to other Puget Sound area fire departments.

During field observations, both CKFR and SKFR were in the process of narrowing the gap of below-average staffing by hiring additional personnel and developing an updated staffing plan. Further evaluation later in this study will discuss the incident workload of the on-duty firefighters.

Figure 33: – CKFR and SKFR Personnel, Puget Sound Comparisons



The Bremerton Fire Department compares favorably with its national and western region peers (Figure 34).

Figure 34: – BFD Firefighters per 1,000 Population, National Comparable

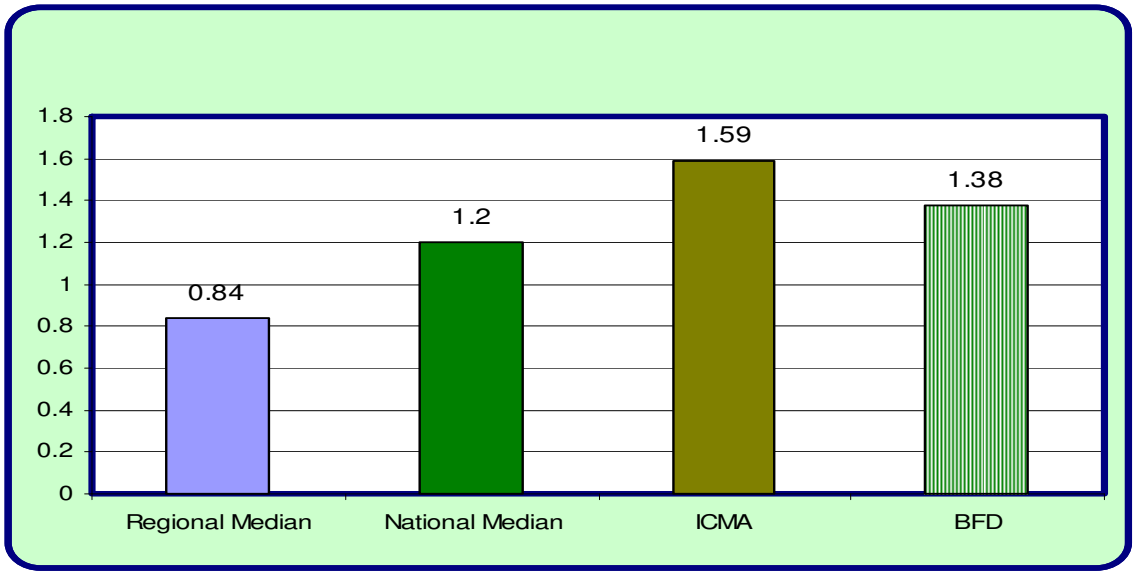
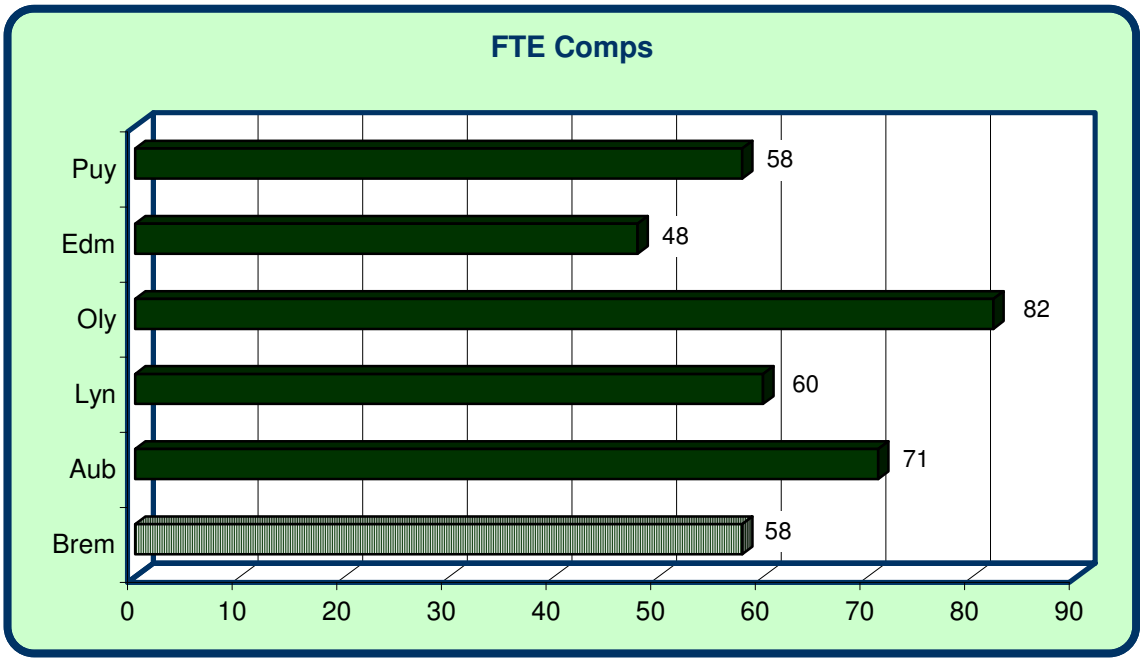


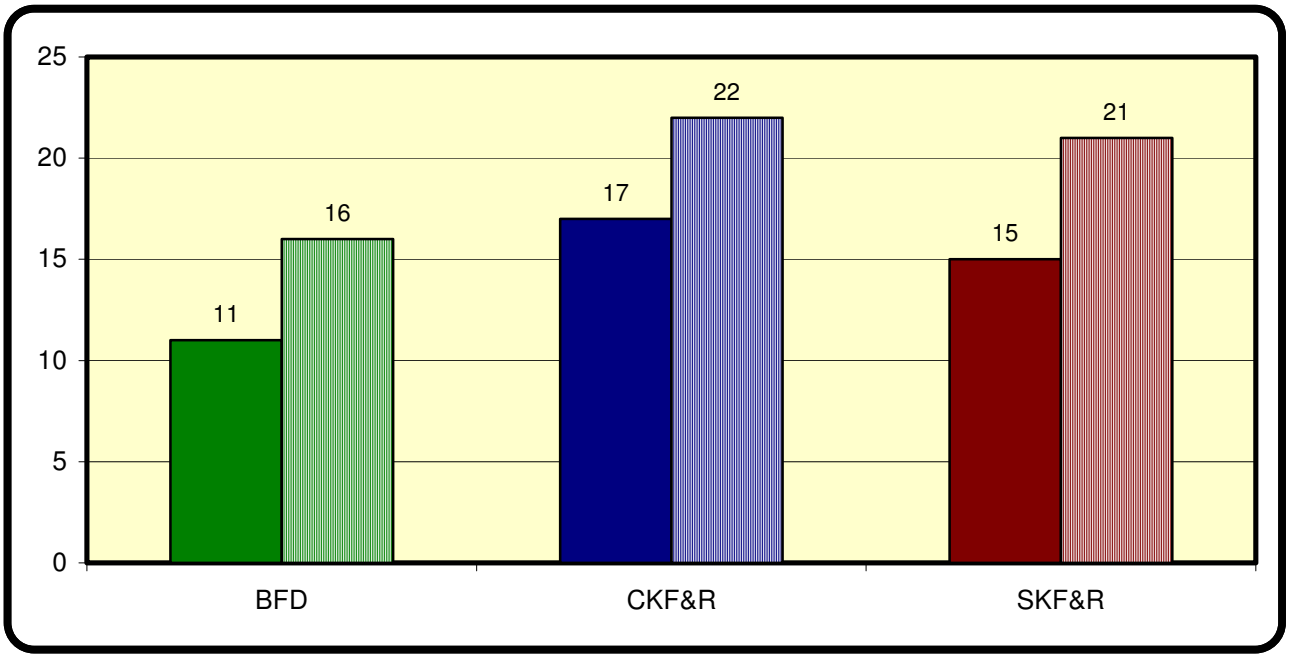
Figure 35 provides a more moderate picture of BFD's staffing levels when compared to its Puget Sound peers. As illustrated, Bremerton lags slightly below the median of its Puget Sound peers. Further analysis will be provided in this report. A clearer picture is formed when comparing staffing levels and the average and hourly workload of the agency and the reliability rate of its respective emergency units and/or stations.

Figure 35: – BFD Full-Time Employees, Puget Sound Comparables



Each agency has a current staffing policy that allows the shift staffing level to fall to a minimum number. Figure 36 illustrates the staffing levels dictated by current labor agreements. Shift staffing reductions due to sick leave, Kelly days, vacations, injuries, and other circumstances may vary from day to day.

Figure 36: – Minimum/Maximum Staffing Levels, Kitsap County Agencies



Incident Staffing Performance

One of the most critical elements of measuring the effectiveness of a fire department is its ability to marshal adequate numbers of trained and equipped forces to mitigate emergencies. Though national standards and practices are developed to quantify success and minimize danger, a fire agency's operating budget most often dictates the level of service its community will experience for fire protection and emergency services. This is a strong argument for regionalization of emergency services.

Delivering enough personnel to the scene to perform all of the concurrent tasks required to deliver quality emergency care is critical. For a cardiac arrest this can be up to six personnel; two to perform CPR, two to set up and operate advanced medical equipment, one to record the actions taken by emergency care workers, and one to direct patient care and take care of family members. Thus, for a medical emergency the real test of performance is the time it takes to provide the personnel and equipment needed to deal effectively with the patient's condition, not necessarily the time it takes for the first person to arrive.

Fire emergencies are even more resource critical. The true test of performance is the time it takes to deliver sufficient personnel to initiate application of water on the fire. This is the only practical method to reverse the continuing internal temperature increases and ultimately prevent flashover. The arrival of one person with a portable radio does not provide fire intervention capability and should not be counted as arrival by the fire department.

NFPA 1710 and NFPA 1720 define the principle of adequate personnel as an "effective work force" in their standards of coverage documentation. The first three elements of a standard of coverage are time benchmarks, and the fourth is the effective workforce element.

Effective Response Force

A response force is defined as the amount of equipment and personnel that must reach an incident within the maximum identified response time. An effective response force must be able to complete the critical tasks shortly after arrival in order to control the emergency. The full assignment of response units must be located close enough to effectively deliver personnel and equipment capable of completing the critical tasks.

Prevention efforts and protection systems alone cannot eliminate the risk of fire or medical emergencies; thus, emergency events cannot be held to zero. The objectives of a standard of coverage study are to identify a balance among distribution, concentration, and reliability of response force resources.

Emergency service agencies should have clearly defined response performance objectives established to allow evaluation of capability and service delivery. An organization's performance objectives should clearly state both the current and desired emergency service capabilities in very measurable terms. For emergency response, performance objectives should define response performance using both time and resource criteria. For example:

- Provide for the arrival of adequate resources to initiate basic emergency medical services at the scene of any medical emergency within "X" minutes following dispatch, 90 percent of the time.
- Provide for the arrival of adequate resources to initiate interior fire suppression operations at the scene of any fire within "X" minutes following dispatch, 90 percent of the time.

With specific performance criteria, a fire department can develop deployment methodologies to achieve desired levels of performance and can quickly identify when conditions in the environment degrade performance.

In the course of this study, ESCi found that South Kitsap Fire & Rescue and Central Kitsap Fire & Rescue both had modern measurable standards of coverage. Additionally, instruments and policies were in place to regularly evaluate response performance. Staffing and facility plans reflect the regular evaluation of performance measurement in both jurisdictions. Bremerton Fire Department did not have established standards of coverage at the time of this study.

Response Performance Analysis

A recent study jointly conducted by NFPA and the Federal Emergency Management Agency (FEMA) examined, among other things, the emergency response workload, capital resources, and the number of firefighters (career and volunteer) in communities across the U.S. In addition, a previous NFPA study provides other information about U.S. fire department staffing and resources. As a tool for analytical and comparative evaluation, ESCi uses data from the two related studies to develop a series of comparative benchmarks for fire protection organizations. ESCi emphasizes that the benchmarks used in this report do not represent standards of service. Rather, the measurements are intended only as references to assist policymakers in comparing their organizations with others in a similar demographic or region. Some benchmarks use a regional point of reference (i.e., Western United States), while others compare the department with a national sample.

The value of evaluating incident data is to discover the workload and performance of a community's emergency services as well as to begin to develop planning tools and resource allocations to better meet the demands for service. It is during the evaluation and analysis exercise that one finds the direct relationship between community characteristics and demographics and the effect/impact that they have on public safety services.

Response Analysis – Bremerton Fire Department

In calendar year 2005, Bremerton Fire Department responded to nearly 7,400 requests for emergency assistance within its jurisdictional boundaries. The distribution of those alarms among the various response categories are detailed in Figure 37. The alarm profile and distribution of BFD incidents is fairly typical of fire departments of similar size and character.

Figure 37: – BFD Workload (2005)

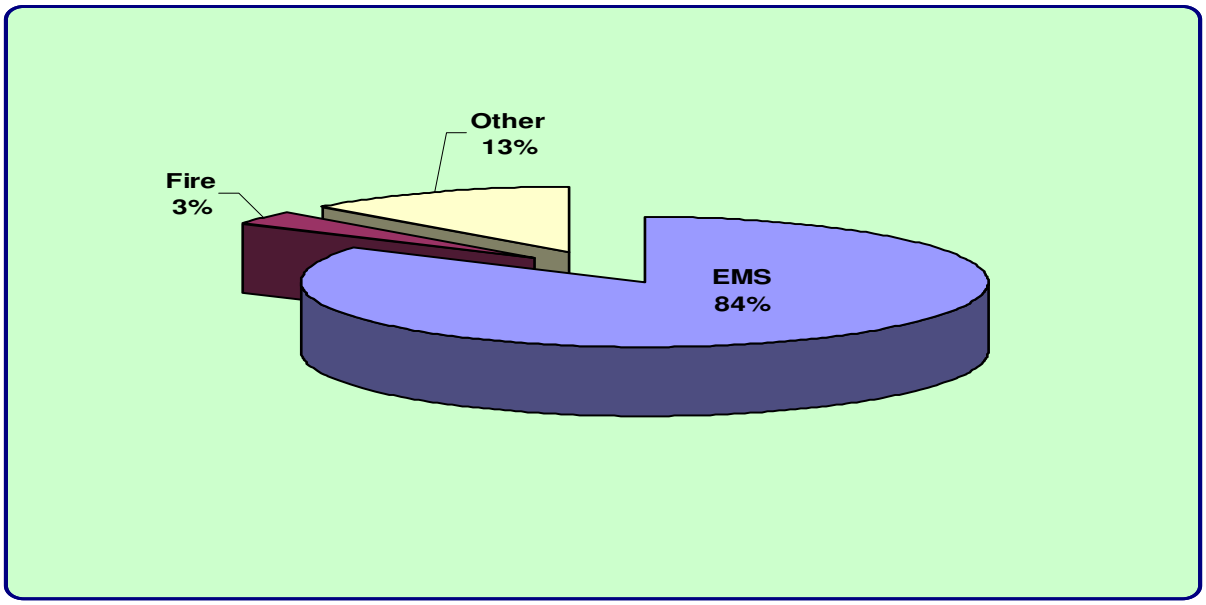


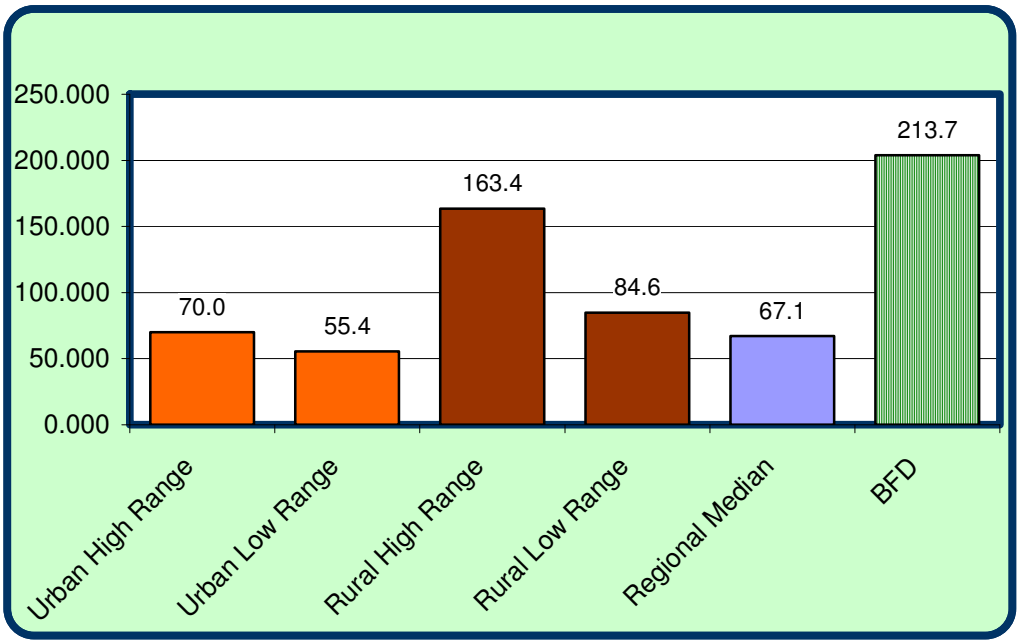
Figure 37 displays the most current breakdown of emergency and non-emergency service demand. A measurable amount of public requests for fire department assistance comes in the form of non-emergency requests (13 percent) or incidents that do not require a full emergency response of the fire department. This figure provides an accurate breakdown of incidents that emphasize the 'First Responder' doctrine, which the National Fire Academy speaks of concerning the fire service in the United States.

Generally, one can predict that EMS type incidents will be responsible for a greater number of incidents than other requests for assistance in most fire departments. It should be noted that approximately 84 percent of the Bremerton Fire Department responses were requests for emergency medical response – both emergency and non-emergency in nature. This is a somewhat higher percentage of emergency medical responses than typically seen in urban, suburban, or rural fire departments.

As illustrated in the following figure, the emergency workload of BFD is higher than the range of other similar-sized urban/rural communities. At 213 incidents per 1,000 residents, the BFD workload is over three times greater than the regional median of other Western United States fire departments of comparable size and demographics. Additionally, the workload is high compared to the Urban High and Low range communities.

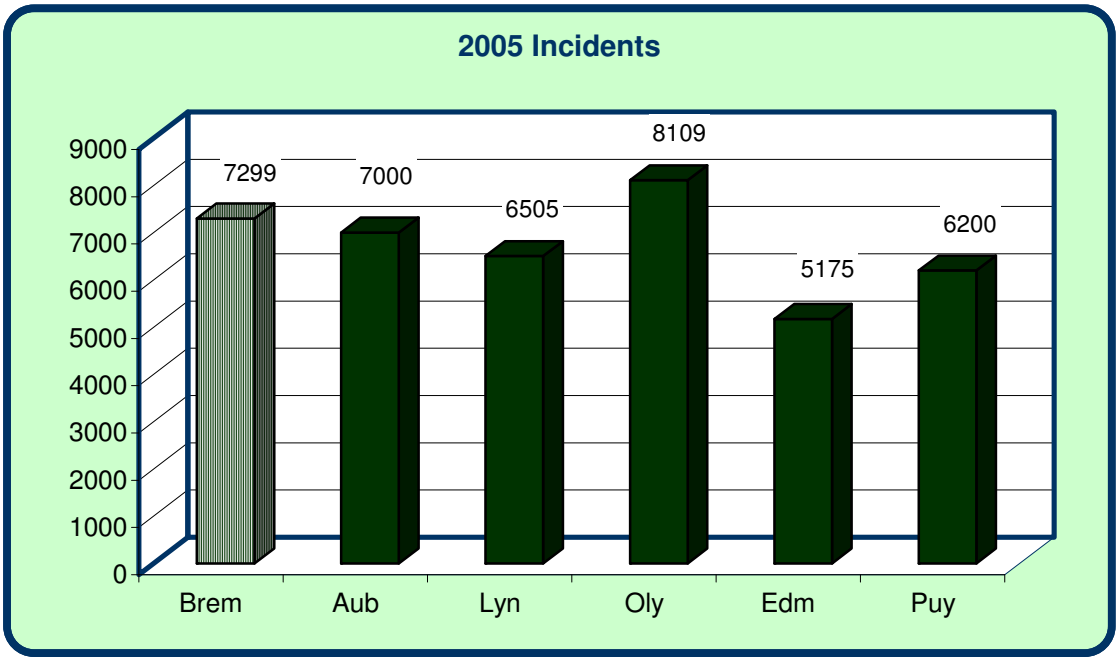
Of note, when comparing BFD's incidents to the four high and low range medians, only Rural High Range fire agencies experience approximately the same workload as it does. This is a fairly common occurrence to find comparably sized rural agencies with higher per-capita incidents.

Figure 38: – BFD Incidents per 1,000 Population (2005)



ESCi provides a comparative look at Puget Sound agencies and their incident workloads. Figure 39 illustrates that the Bremerton Fire Department typically has an annual response workload comparable to its western Washington peers. This is best explained by the fact that a percentage of western U.S. fire agencies do not provide the level of emergency medical services as compared to other Washington fire departments.

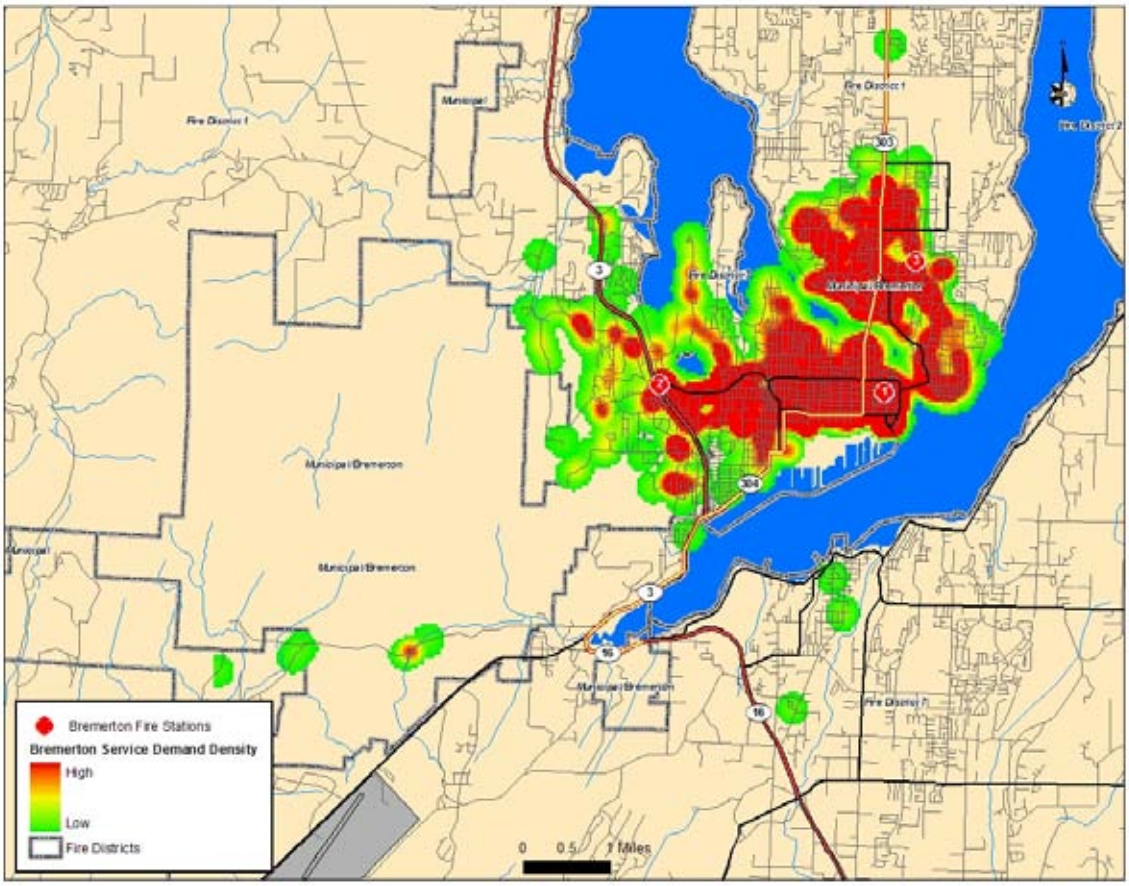
Figure 39: – BFD Incidents, Puget Sound Comparables (2005)



The size, age and characteristics of a community reflect greatest on the demand for public safety services. Figure 40 on the following page demonstrates the workload density of the Bremerton Fire Department as compared to the population. BFD's workload is centered in the core area of the city with pockets of high activity in other residential areas.

Emergencies occur most frequently in the more populated portions of the service area. This is expected, since it is human activity not just population numbers that will dictate emergency response. As reported by the NFPA, over 70 percent of all fires occur because of human behavior, either the inappropriate use of heat or the failure to maintain equipment along with other factors. The following map shows the geographic service demand density of responses during the study year. It is worth noting that the current location of fire stations does not necessarily reflect the most optimum placement relative to the demand for service. This is addressed later in this report for current and future fire station locations.

Figure 40: – BFD Workload Density



The NFPA chart in Figure 41 compares the number of 'fire' type responses per 1,000 residents. Bremerton Fire Department averages approximately 6.4 fire responses per 1,000 persons, which is slightly greater than the median of other regional fire departments serving a similar-sized population.

Figure 41: – BFD Fire Incidents per 1,000 Population, National Comparables (2005)

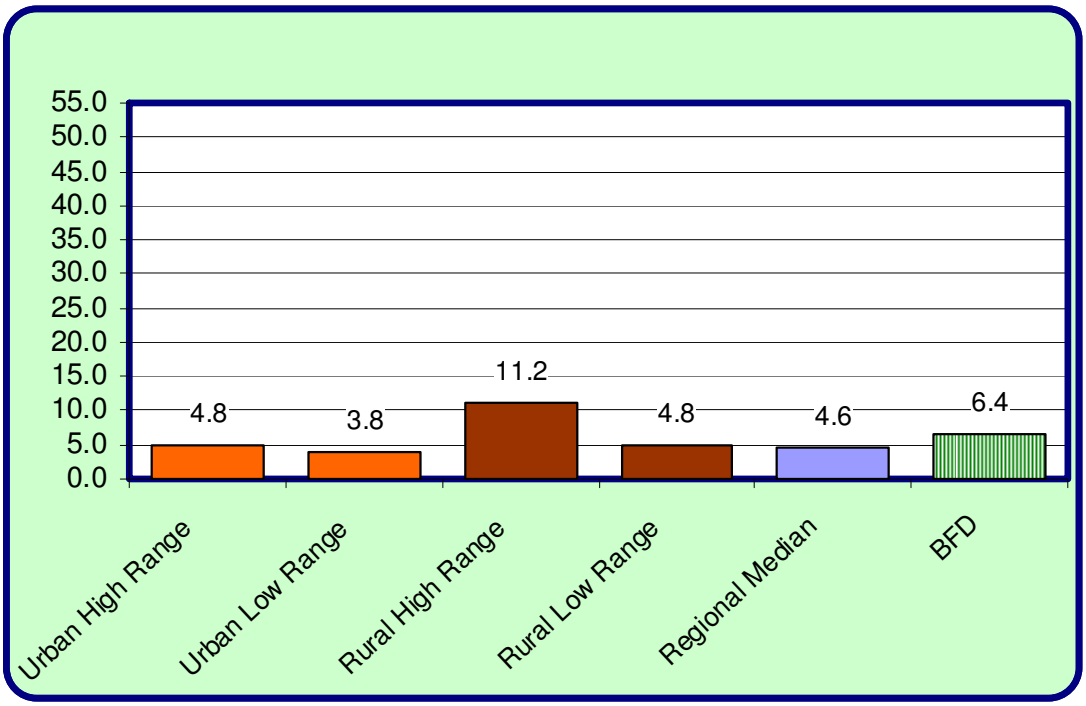
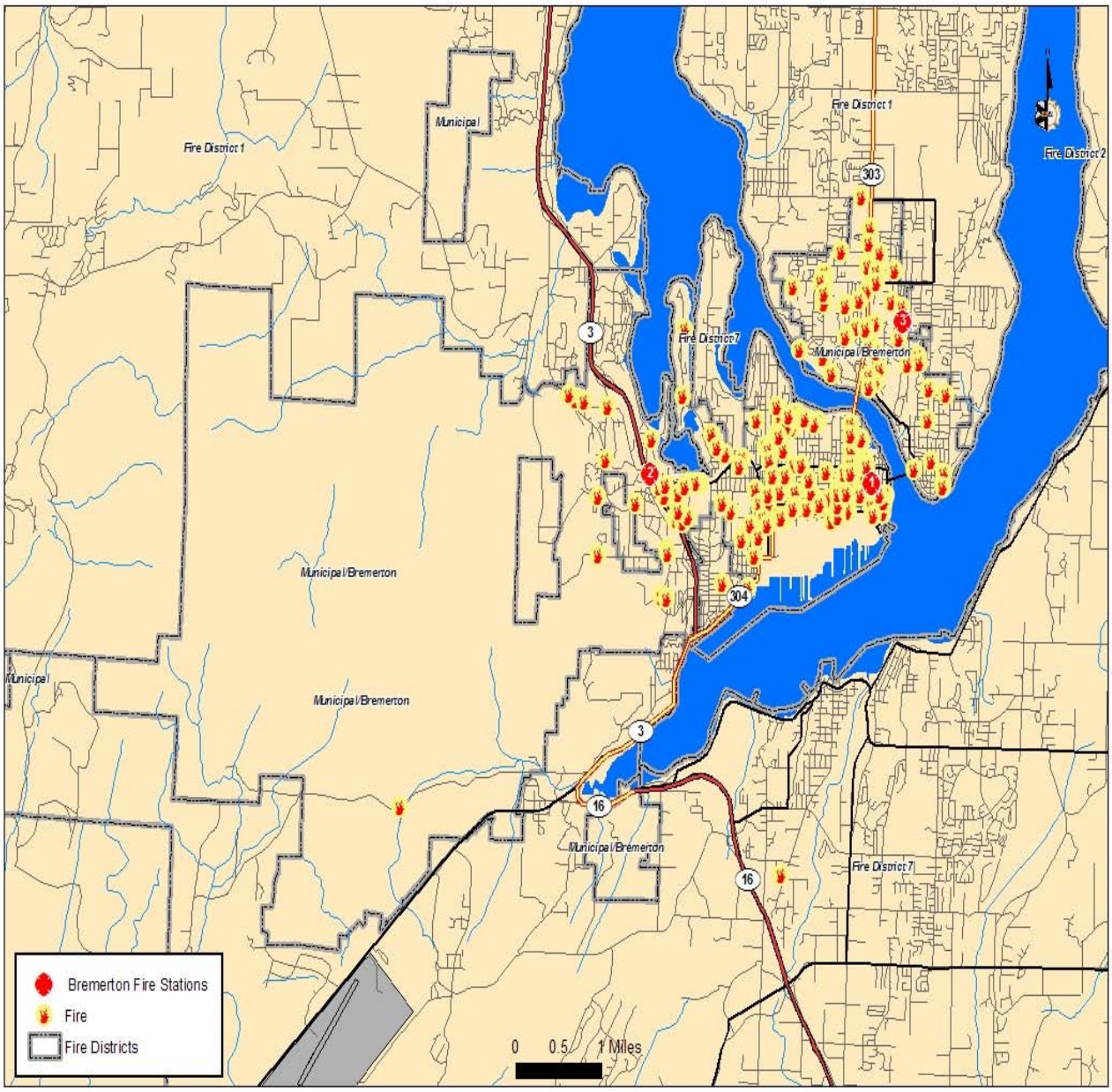


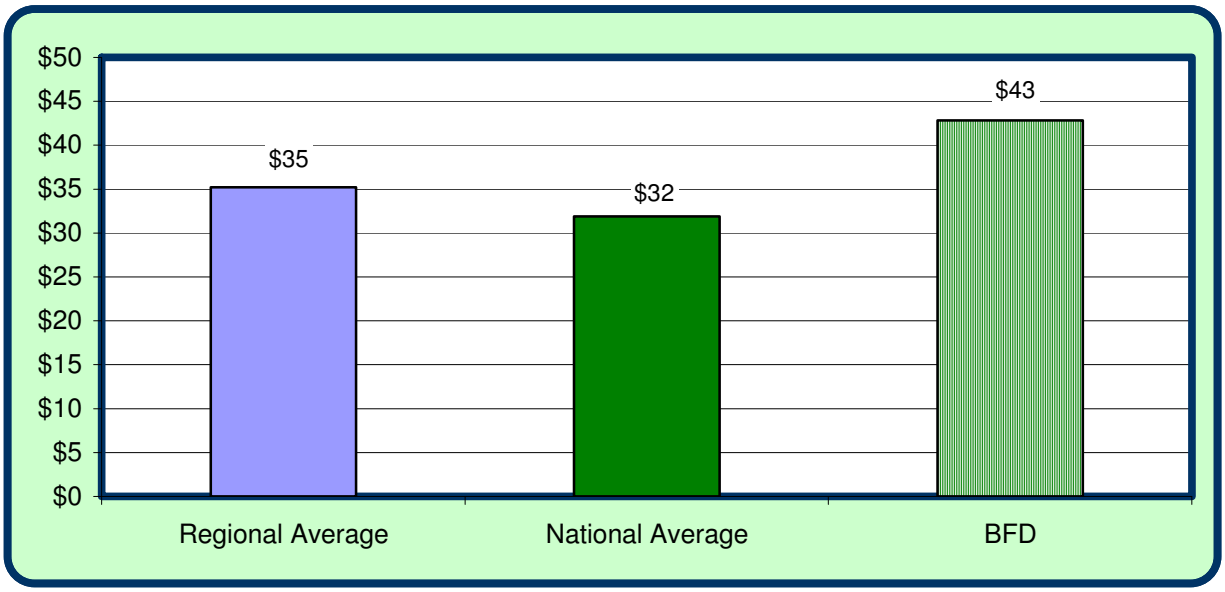
Figure 42 reflects a visual overview of the actual 'fire' type workload from a *geo-coded*, GIS mapping perspective. The concentration of the fire activity as it relates to the population and the density of the city is evident. An examination of the three-year fire loss average for the city of Bremerton shows a higher level when compared to other similar communities in the region.

Figure 42: – BFD Fire Incidents



As illustrated in Figure 42, the fire loss per capita for BFD is approximately 20 percent greater than the regional average and significantly higher than the national average. While this is reflective of the 'older city' profile of Bremerton and subsequent fire activity, it does not breach the gap indicated by earlier tables showing the Bremerton Fire Department responding to over eight times as many *fire responses* as the average of the rest of the nation. This is clearly a data reporting error and is not consistent with the number of actual fires in Bremerton.

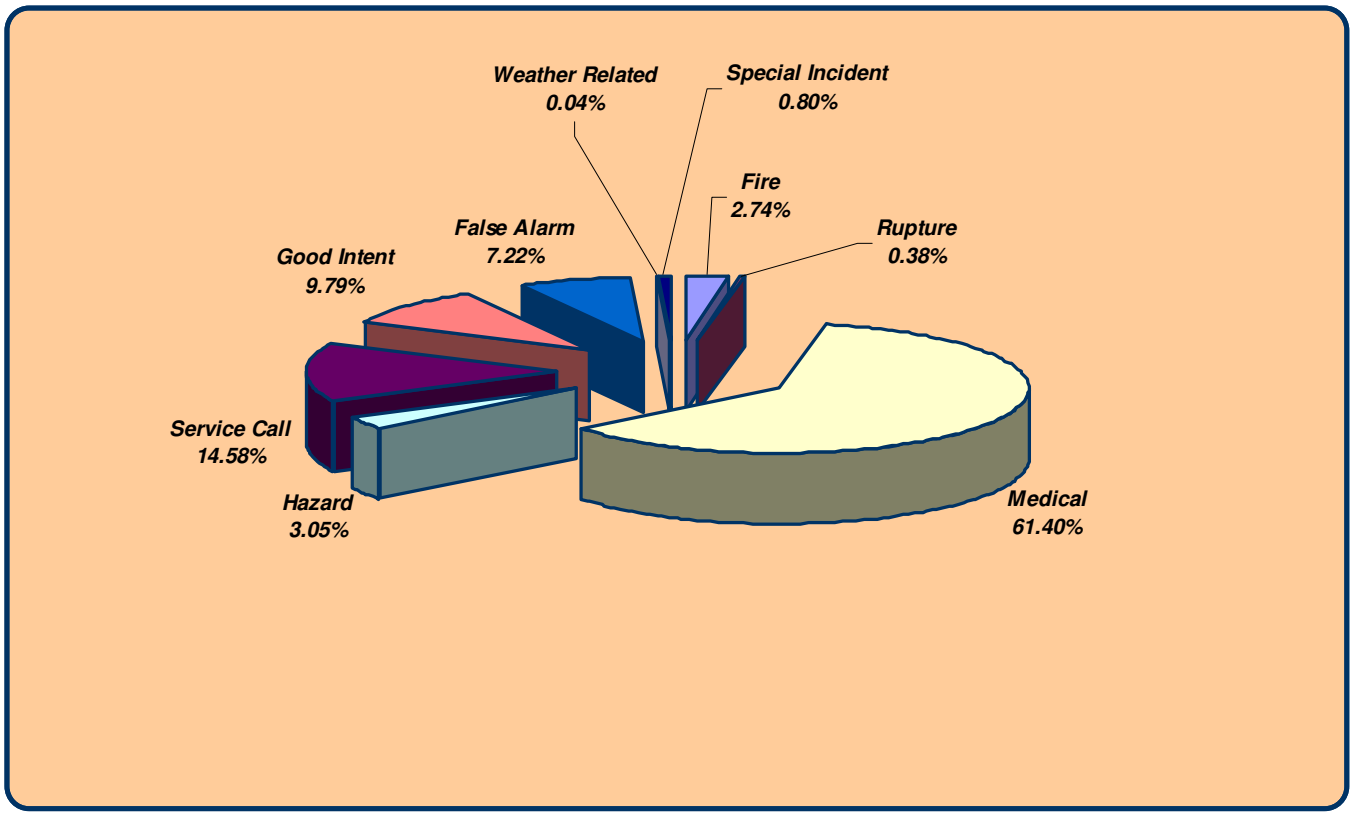
Figure 43: – BFD Fire Loss per Capita, National Comparables (2005)



Response Analysis – Central Kitsap Fire & Rescue

In calendar year 2005, Central Kitsap Fire & Rescue responded to 7,123 requests for emergency assistance within the fire district boundaries. The distribution of those alarms among the various response categories is detailed in the figure provided below.

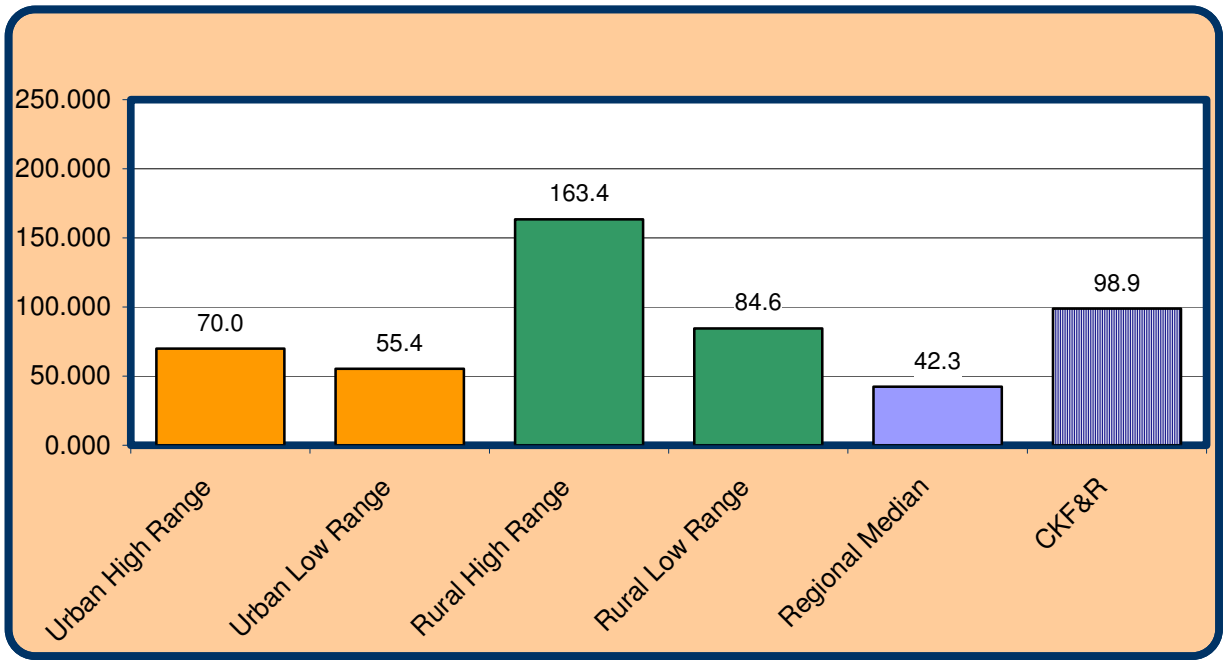
Figure 44: – CKFR Incident Distribution (2005)



For incident analysis of this nature, the CKFR data was complete. The alarm profile and distribution of CKFR incidents as shown in Figure 44 are typical of comparable fire agencies, as opposed to the response demands of the Bremerton Fire Department.

Figure 45, from the NFPA study illustrates that CKFR total incidents *per thousand of population* is nearly twice the regional median average of comparable communities in the western United States.

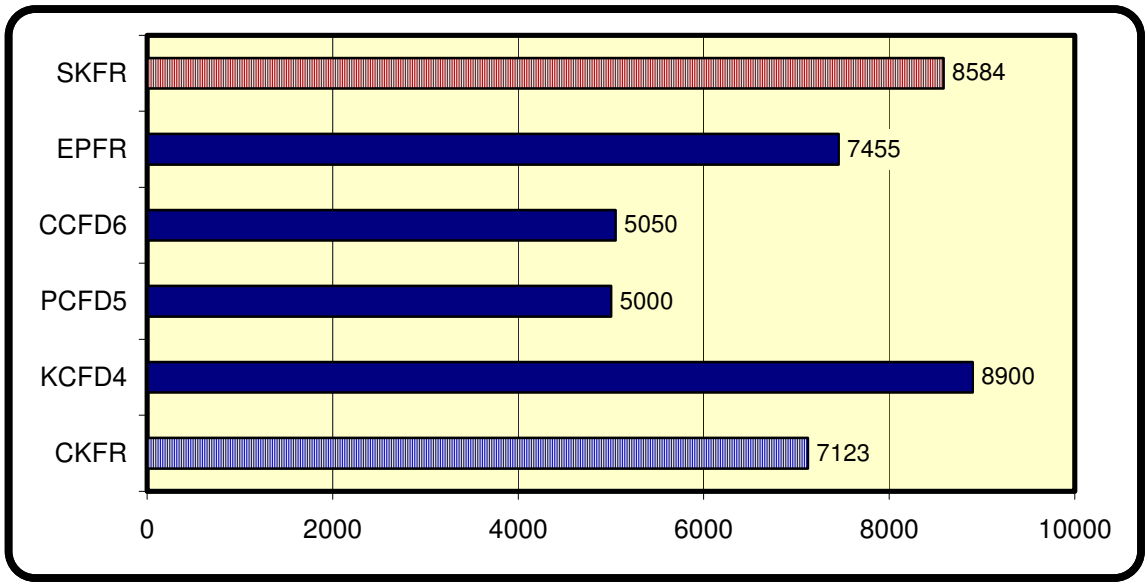
Figure 45: – CKFR Incidents per 1,000 Population, National Comparables (2005)



While the CKFR incident workload is comparative to both urban high and low range communities, CKFR ranks in the low end of other comparable rural jurisdictions.

On a more local view, CKFR and SKFR continue to hold the trend of responding to an above average emergency workload. This is demonstrated in Figure 46 below. While two of the comparable agencies show a greater workload, the comparison is offset by analysis of other demographic data showing those agencies to be measurably larger than CKFR and SKFR. This simply supports the analysis that the Kitsap County fire districts in this study respond to a heavy workload.

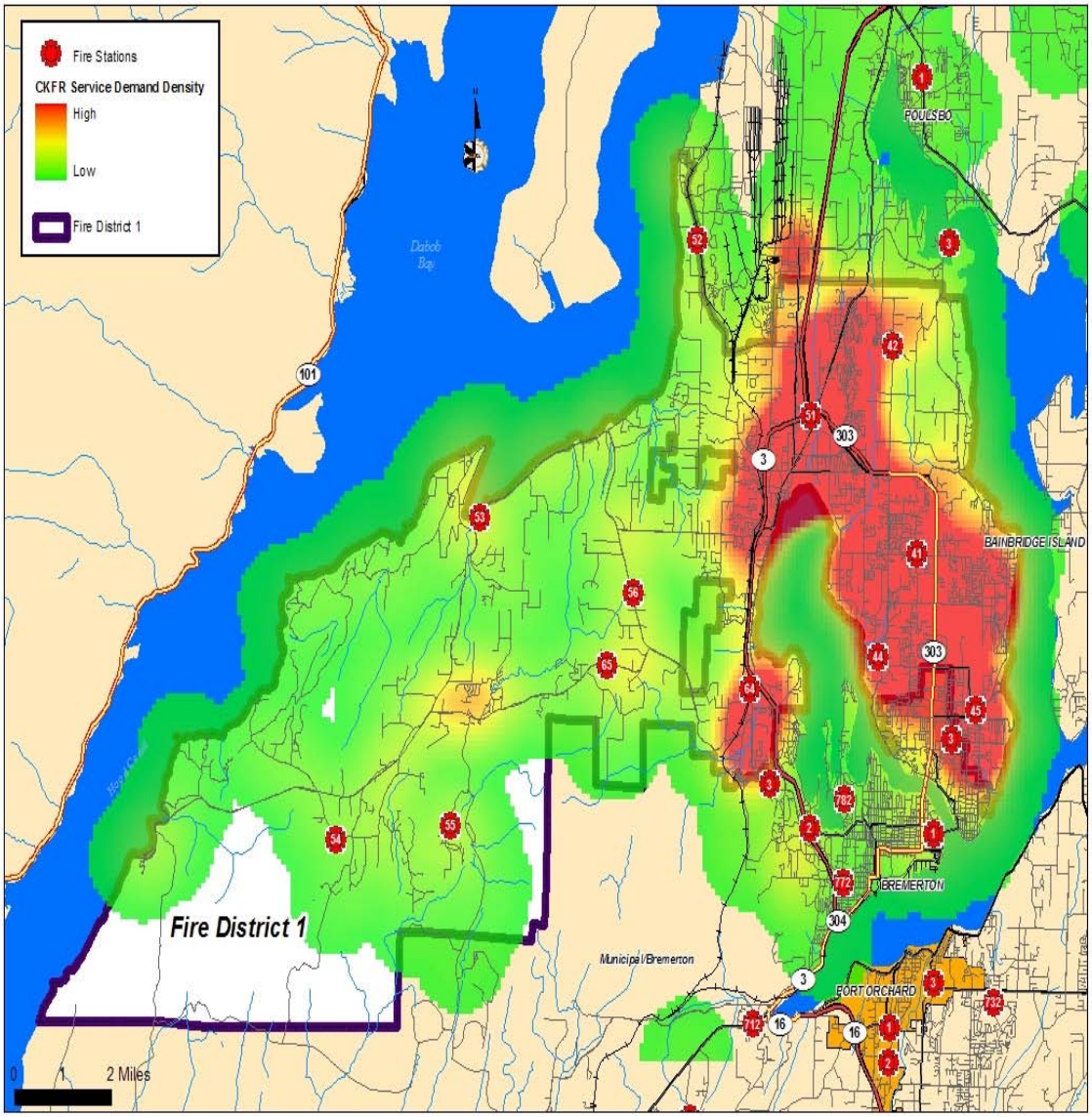
Figure 46: – CKFR and SKFR Incident Analysis, Puget Sound Comparables (2005)



As shown in Figure 47, CKFR's incident data is overlaid on the GIS mapping grids. The figure reflects the incident workload density when proportioned onto the map with geo-coded information. As one would expect, the figure indicates the larger demand for CKFR services is centered on the more densely populated areas of the district with some pockets of activity in the peripheral areas.

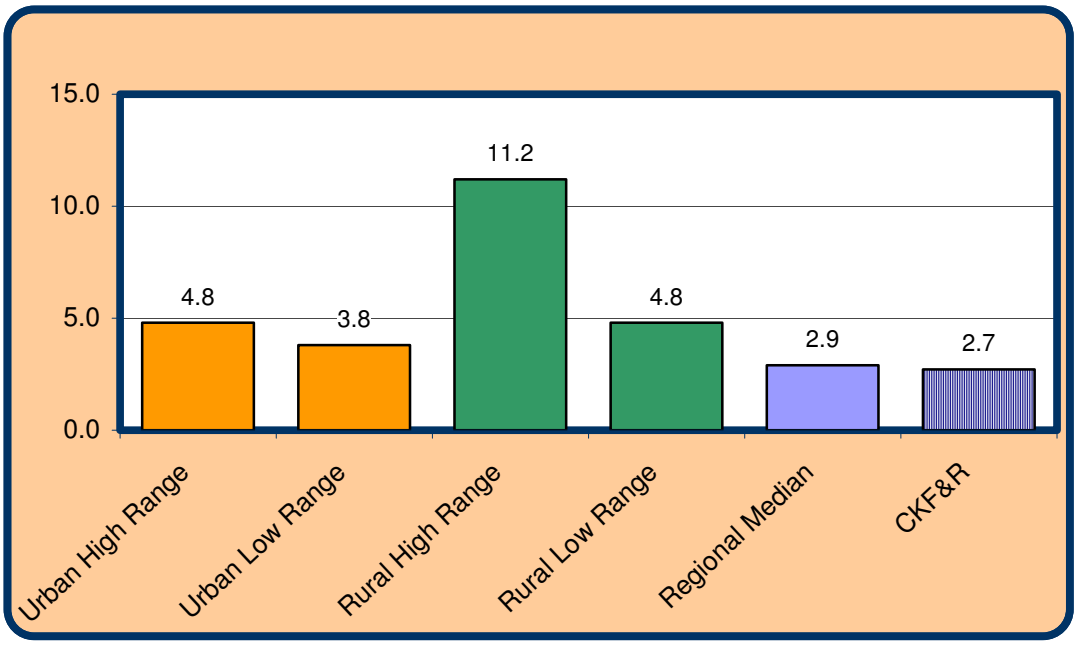
Over the past 16 years, CKFR's incident workload has increased from 3,017 total incidents in 1988 to over 7,100 incidents in 2005. Interestingly, the incident volume has dropped off by nearly 800 incidents comparatively as recorded in 2001, 2002, and 2003. The cancellation of an inter-hospital transport contract between Harrison Silverdale and Harrison Bremerton in 2004 resulted in the majority of the reduction. The incident growth rate over the past 18 years has averaged an increase of more than 7 percent annually.

Figure 47: – CKFR Workload Density



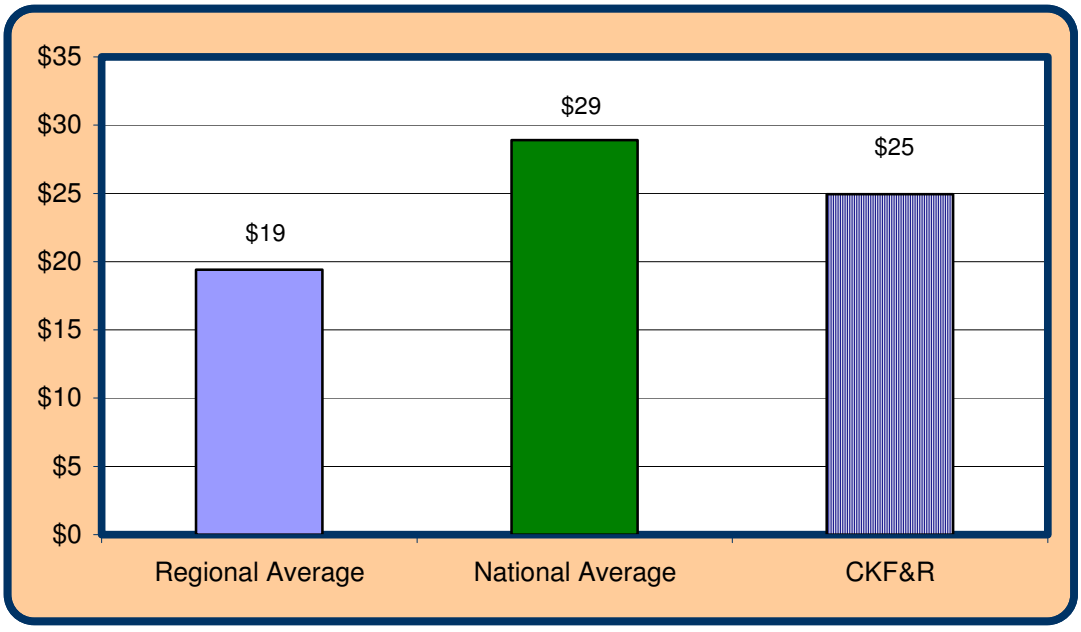
The following figure compares the number of 'fire' type responses per 1,000 residents for CKFR. It appears CKFR averages 2.71 fire responses per 1,000 population, which is slightly less than the median of other regional departments serving a similar-sized population.

Figure 48: – CKFR Fire Incidents per 1,000 Population, National Comparables (2005)



CKFR experiences an equivalent average fire loss for communities its size in the western region and a moderately lower average when compared on a national scale. Figure 49 demonstrates the comparable fire loss per capita. CKFR is consistent with comparables for fire loss.

Figure 49: – CKFR Fire Loss per Capita, National Comparables (2005)



Response Analysis – South Kitsap Fire & Rescue

In calendar year 2005, South Kitsap Fire & Rescue responded to 8,584 requests for assistance within the fire district boundaries. The distribution of those alarms among the various response categories are detailed in the figure provided below.

For incident analysis of this nature, the SKFR response data was complete with regard to the actual types of incidents. The alarm profile and distribution of SKFR incidents as shown in Figure 50 is typical of comparable fire agencies. It should be noted that, similar to the Central Kitsap Fire & Rescue data, SKFR also had a lower than average EMS demand.

Figure 50: – SKFR Incident Distribution (2005)

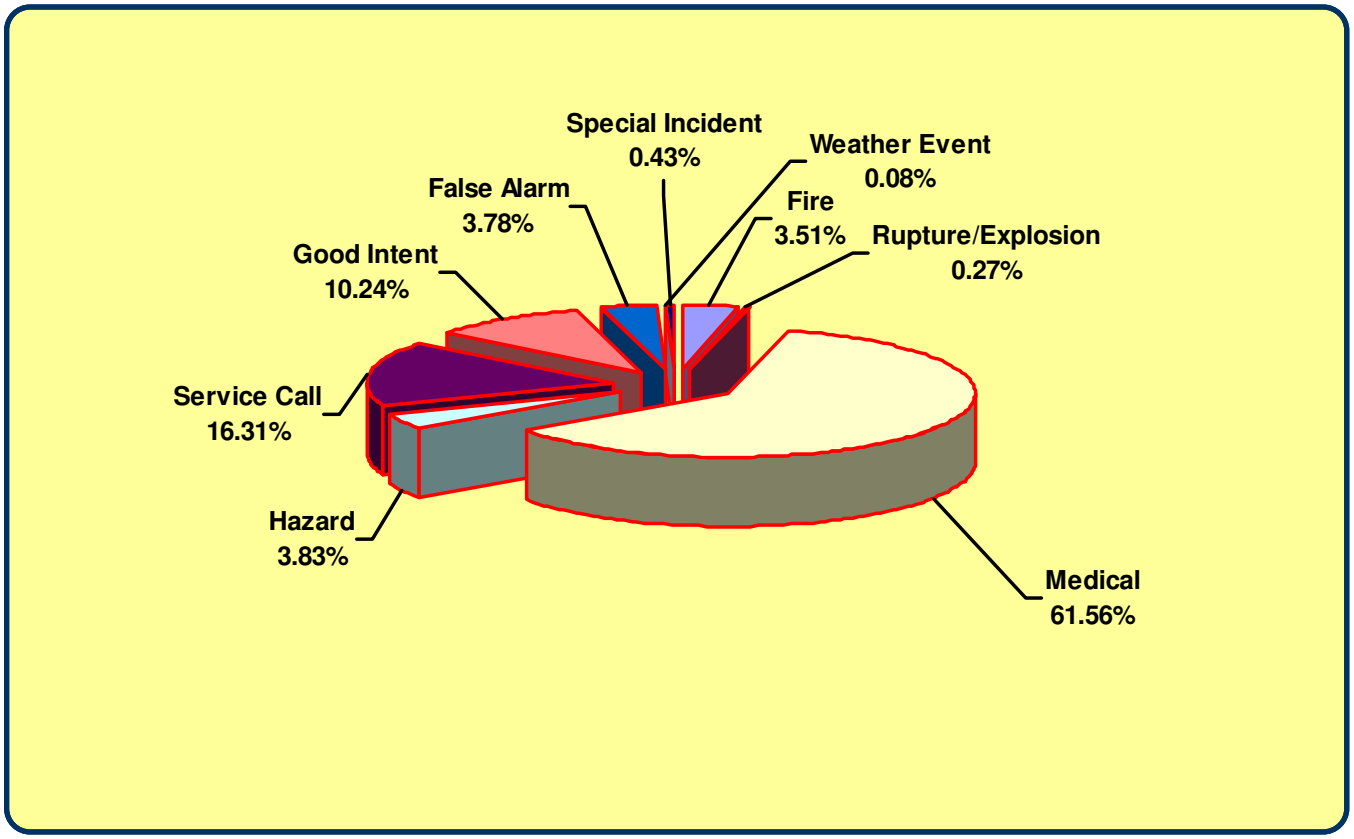
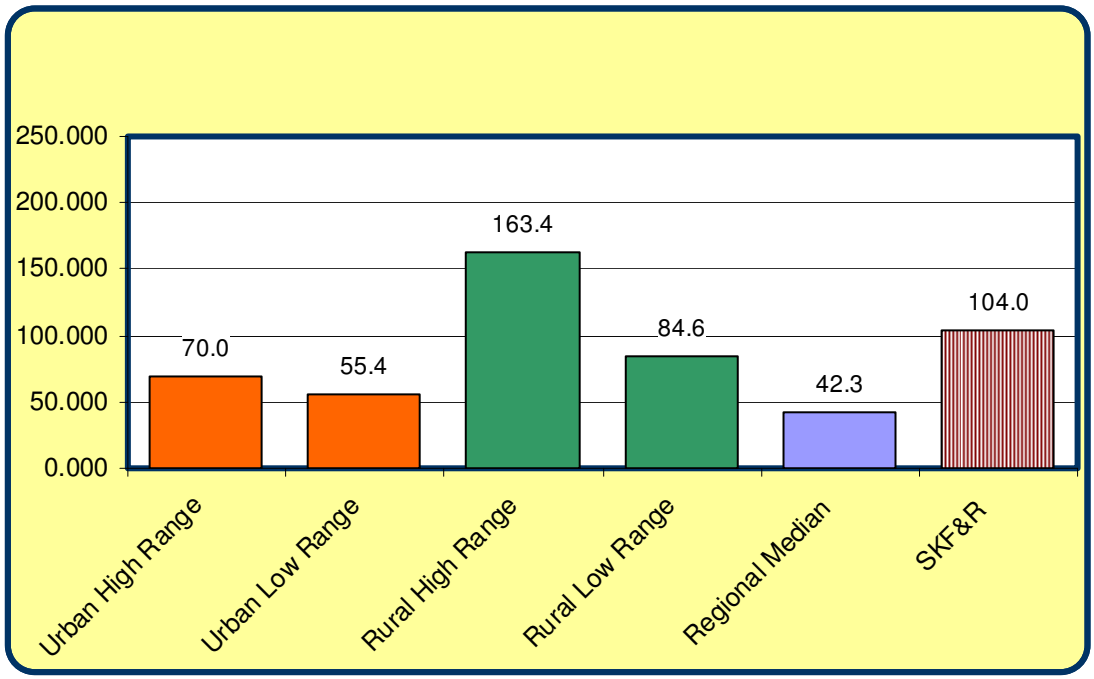


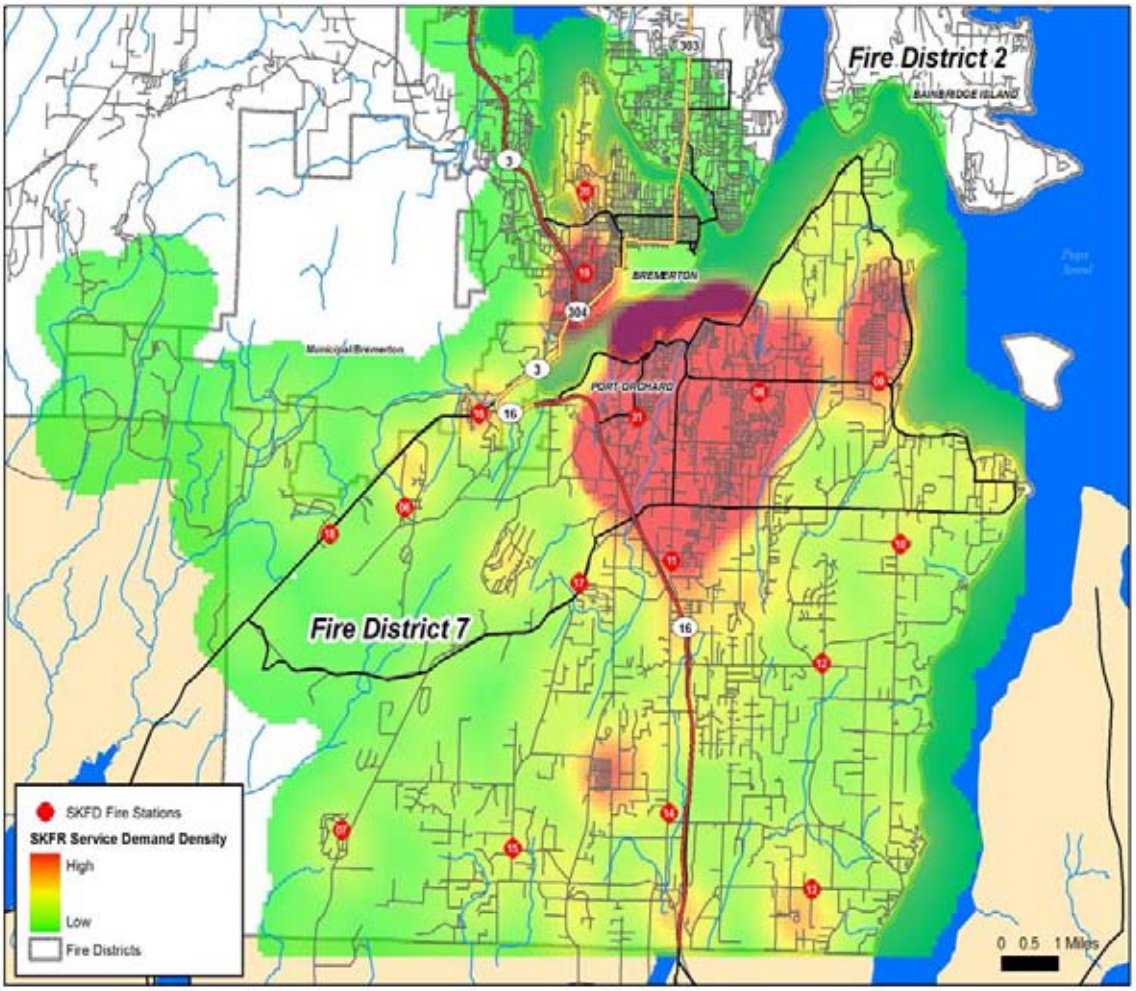
Figure 51 illustrates that SKFR total incidents per 1,000 population is over twice the regional median average of comparable communities. While SKFR incident workload is moderately higher than both the urban high and low range communities, SKFR also ranks in the low end of other comparable *rural* jurisdictions.

Figure 51: – SKFR Incidents per 1,000 Population, National Comparables (2005)



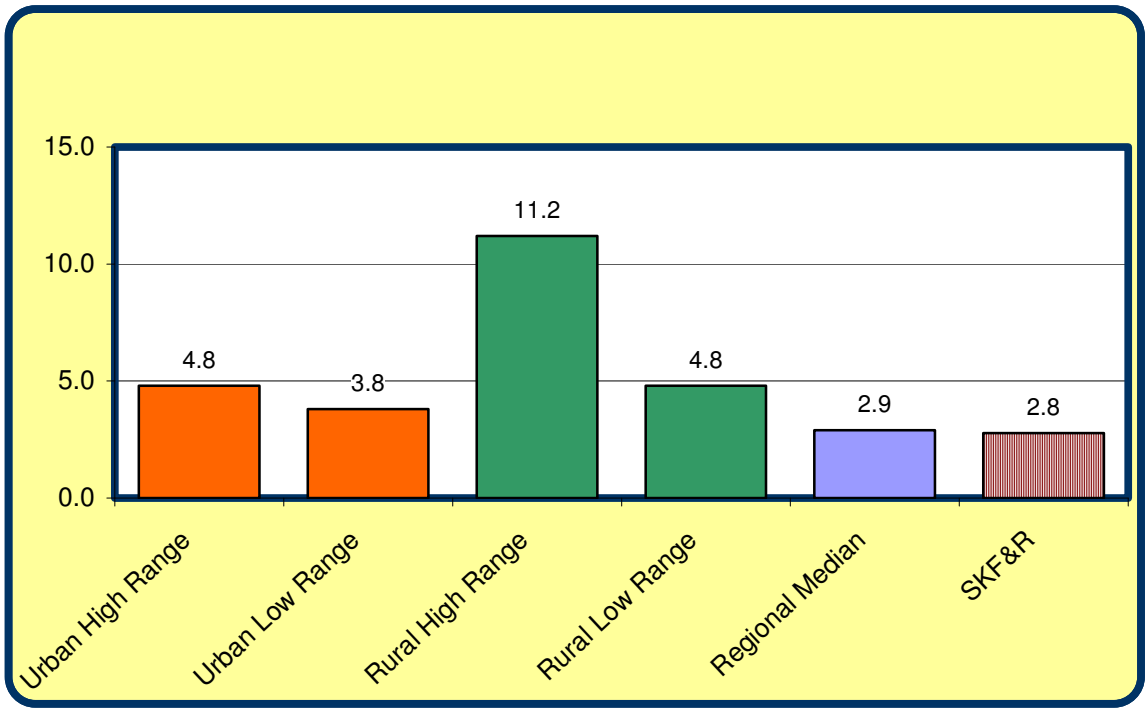
As shown in Figure 52, SKFR's 2005 incident response data is overlaid on the GIS mapping grids for district's jurisdictional boundaries. This figure again reflects the incident workload density when proportioned onto the map with geo-coded information. The figure indicates the larger demand for SKFR services is centered around Port Orchard and the other population centers of the district with some pockets of activity in the peripheral areas.

Figure 52: – SKFR Incident Service Demand Density



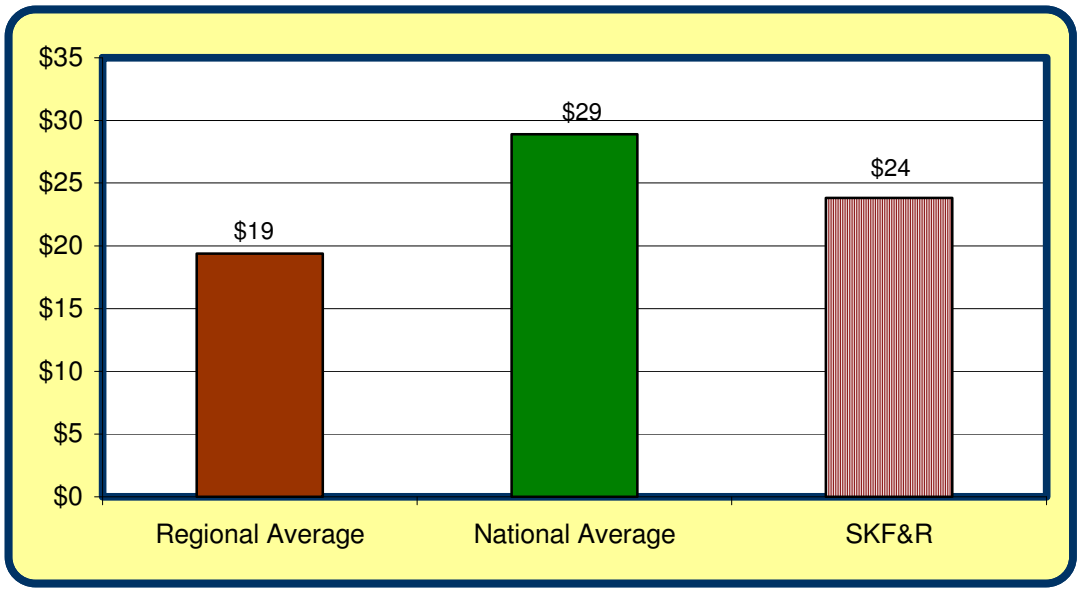
The NFPA figure below (Figure 53) compares the number of 'fire' type responses per 1,000 residents for SKFR in 2005. South Kitsap Fire & Rescue averages 2.8 fire responses per 1,000 population, which is at the median of other regional departments serving a similar-sized population. SKFR has a lower number of fire incidents per 1,000 population than the urban, rural, and regional comparable agencies, as well as its fellow Kitsap County project agencies.

Figure 53: – SKFR Fire Incidents per 1,000 Population Comparison (2005)



SKFR has a lower fire loss per capita ratio in comparison to national averages.

Figure 54: – SKFR Fire Loss per Capita Comparison (2005)



Workload Analysis

As part of this study, ESCi evaluated the frequency and opportunity that alarms occurred for the Bremerton Fire Department, Central Kitsap Fire & Rescue, and South Kitsap Fire & Rescue. This

'workload analysis' is reflected in the following pages, illustrating how the fire agencies' incidents are distributed by month; by day, and by hour. Response activity can be highly variable over the course of a day, week, season, and year. There is some noteworthy variation in each agency's response workload.

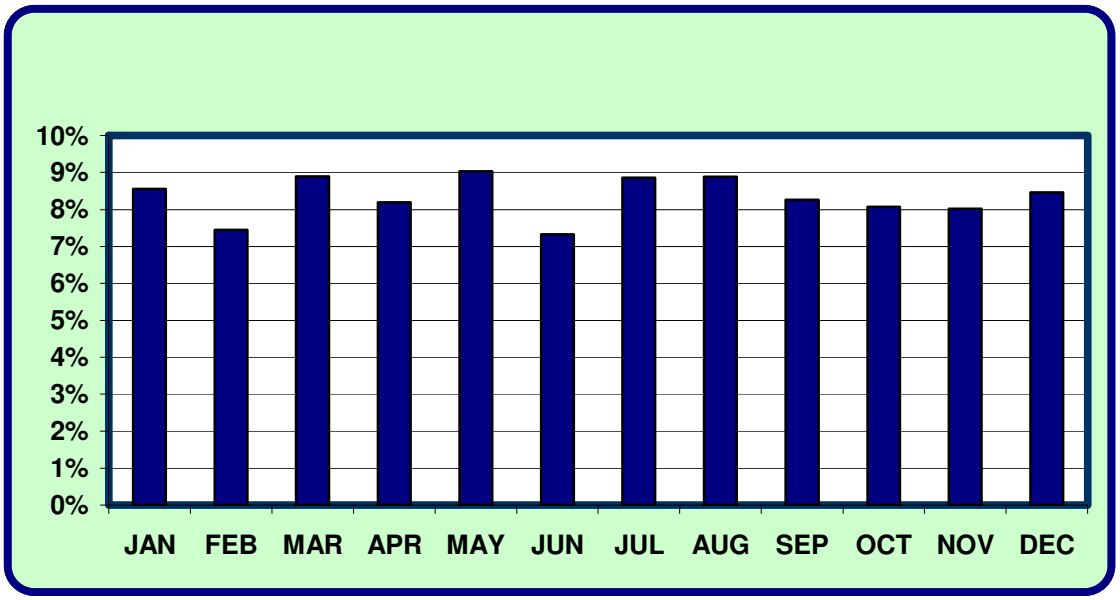
The workload and opportunity of an agency's emergency incidents has a direct affect on the ability to meet established response performance measures. By understanding, analyzing, and plotting the on-going workload, more accurate and efficient methods of addressing that workload can be accomplished to maximize service and minimize cost impacts.

Knowledge of the variations in fire department workloads can be useful when evaluating and planning the assignment of response resources, standards of coverage doctrines and adopting response performance standards. It also emphasizes the efficiency of cooperative service opportunities between the three agencies on a short-, middle-, and long-term basis to address those workloads.

Bremerton Fire Department Workload Analysis

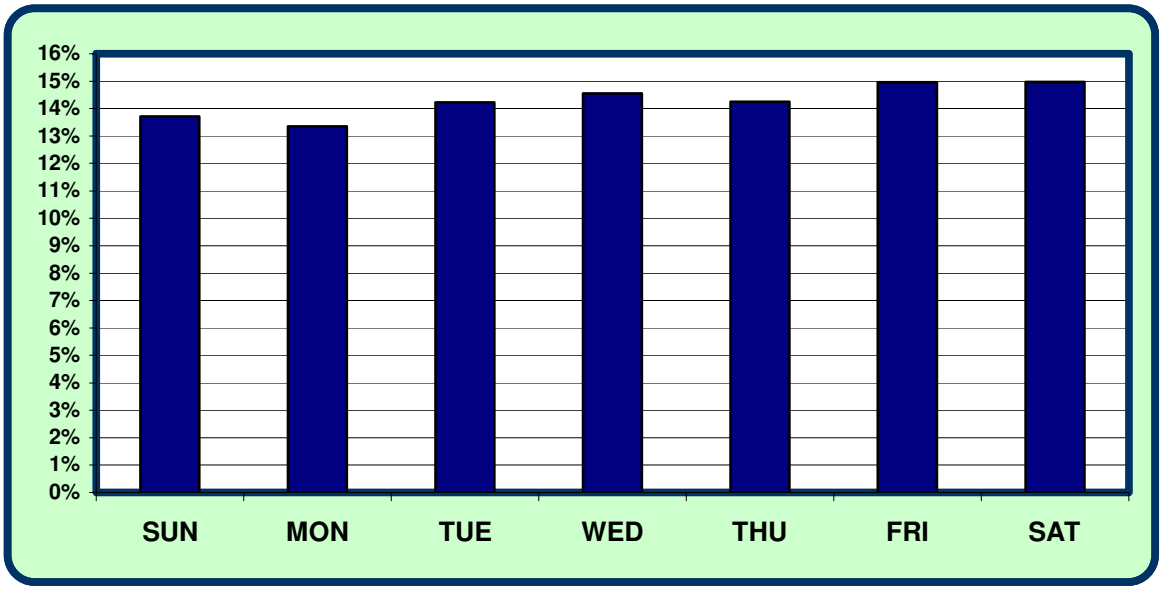
The workload experience of the Bremerton Fire Department is illustrated in Figure 55. It is predictable that a fire department would experience a marginal increase in its workload as the summer months unfold. With the exceptions of February and June, incident activity remains fairly consistent throughout the year.

Figure 55: – BFD Incident Workload by Month (2005)



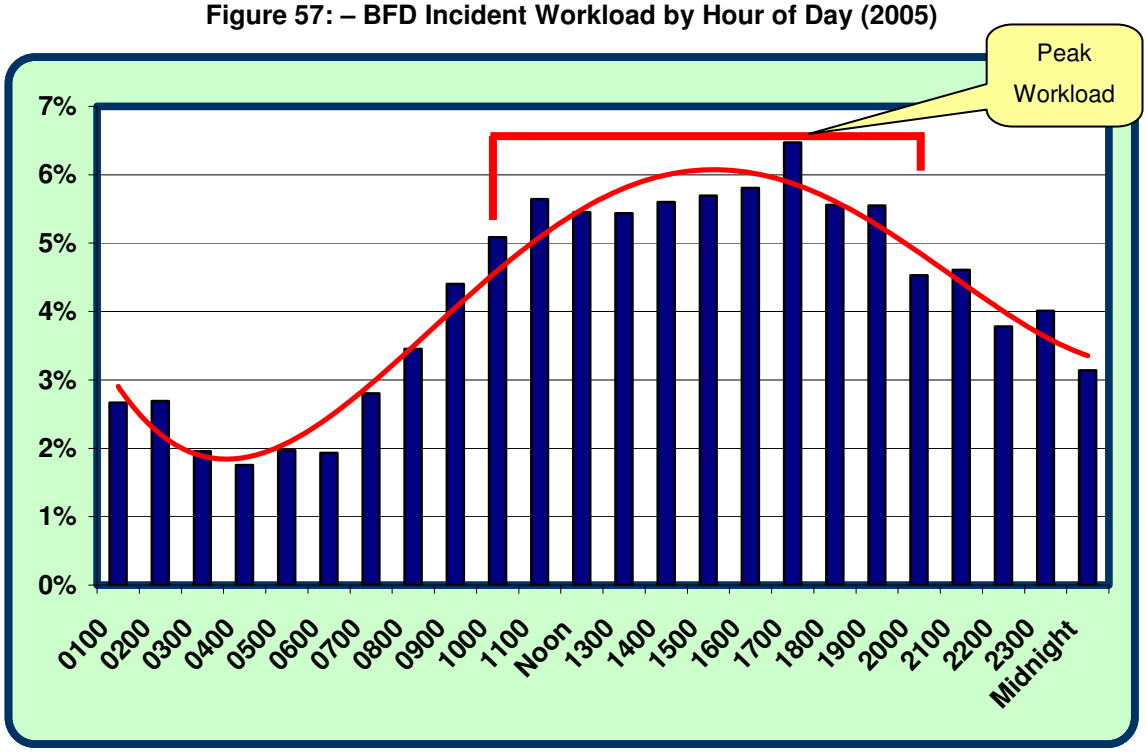
As shown Figure 56, the demand for service finds its 'lows' on Monday and moves to the highest levels on Friday and Saturday. Because ESCi did not have access to incident data beyond the reporting year 2005, it is unclear whether this is a consistent pattern for BFD or data from a year with anomalies.

Figure 56: – BFD Incident Workload by Day of the Week (2005)



The BFD workload experience, when evaluated by time of day, is typical of what ESCi experiences with most jurisdictions. There is a relative correlation between the characteristics and demographics of a community and its workload demand. In most of the moderate to larger sized jurisdictions, the breakdown of hourly workload most often is displayed by an increase in workload activity around 9:00 a.m. with activity peaking in the late afternoon and leveling off or slowing down around 8:00 p.m.

Figure 57: – BFD Incident Workload by Hour of Day (2005)



The figure above shows a moderately higher workload on either side of the peak workload hours. This data is consistent with the overall picture of Bremerton Fire Department. Further analysis in the Response Performance section of this report will show the unit reliability rate of BFD fire units. A lower reliability rate is normally an indicator of high demand.

CKFR/SKFR Workload Analysis

The CKFR and SKFR demand for service workload analysis is significantly lower than BFD's. With the exception of December, there is little change in monthly incident workload for CKFR and SKFR.

The workload as indicated in Figure 58 shows the highest demand for services for CKFR to be in December. The SKFR incident workload is almost a mirror image of its neighboring fire partner. Figure 59 illustrates nearly the same workload demands from month to month for SKFR as for CKFR. While this data may be gathered and presented from a shorter reporting term, a longer historical look would be very helpful in identifying a more regional approach to providing services.

Figure 58: – CKFR Incident Workload by Month (2005)

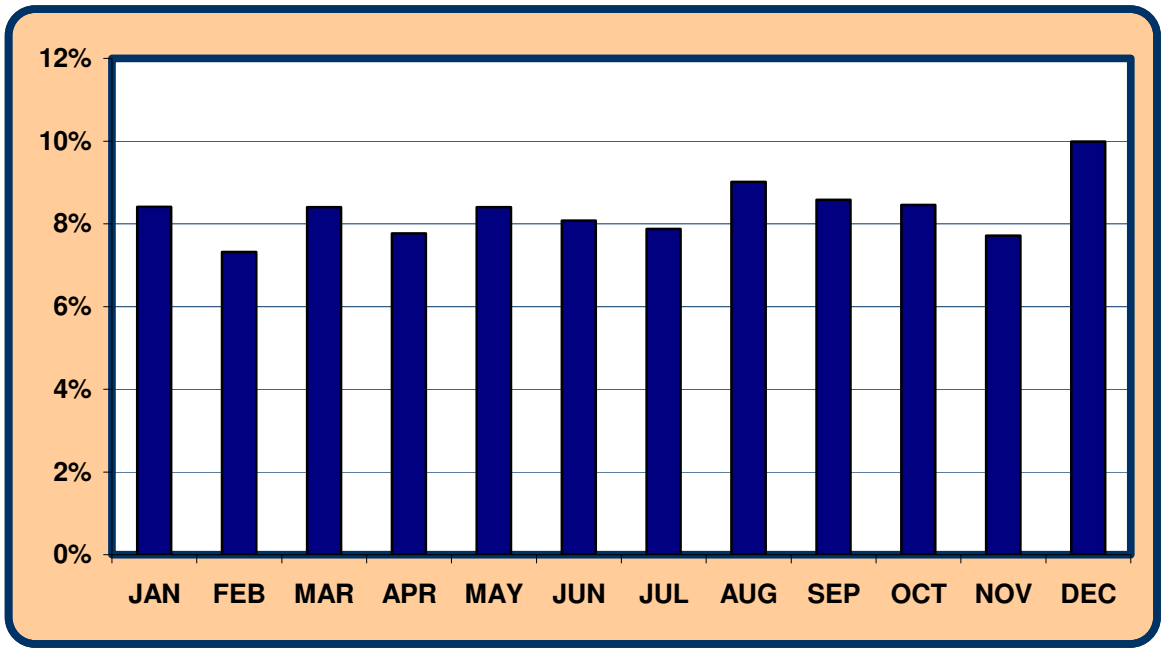
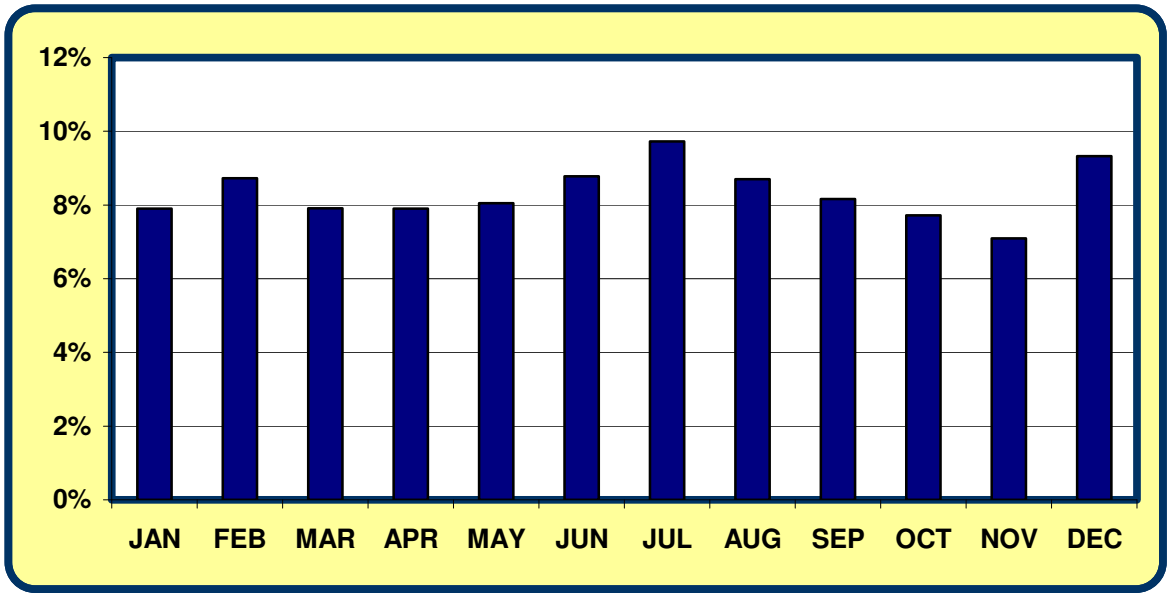
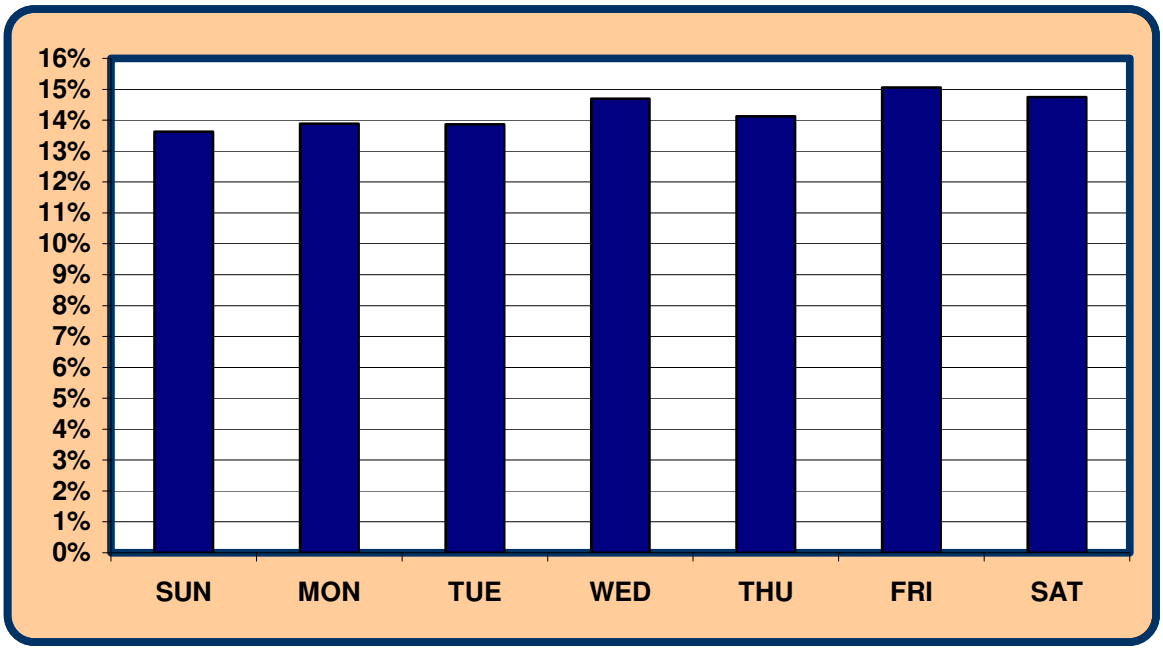


Figure 59: – SKFR Incident Workload by Month (2005)



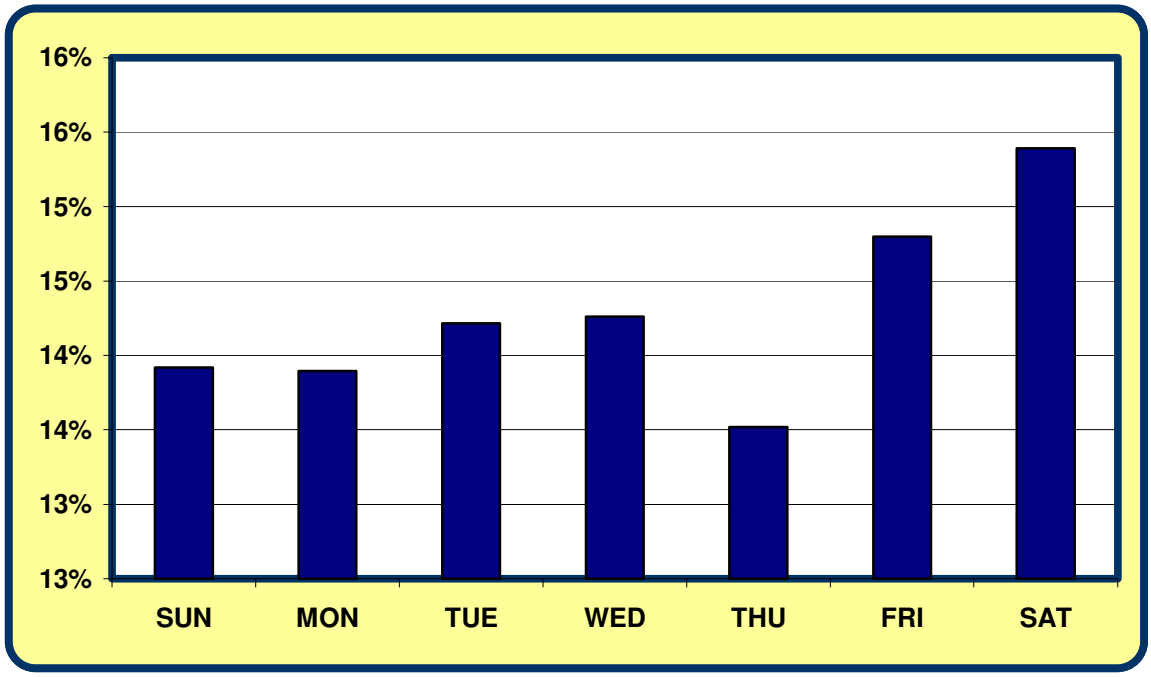
CKFR's workload by day of the week is illustrated in Figure 60. Response activity remains fairly constant throughout the duration of the week. Because the data provided is for a shorter duration of time, it is unclear whether this is a consistent trend or indicative of a shorter reporting period.

Figure 60: – CKFR Incident Workload by Day of the Week (2005)



The SKFR weekly workload pattern is illustrated in Figure 61.

Figure 61: – SKFR Incident Workload by Day of the Week (2005)

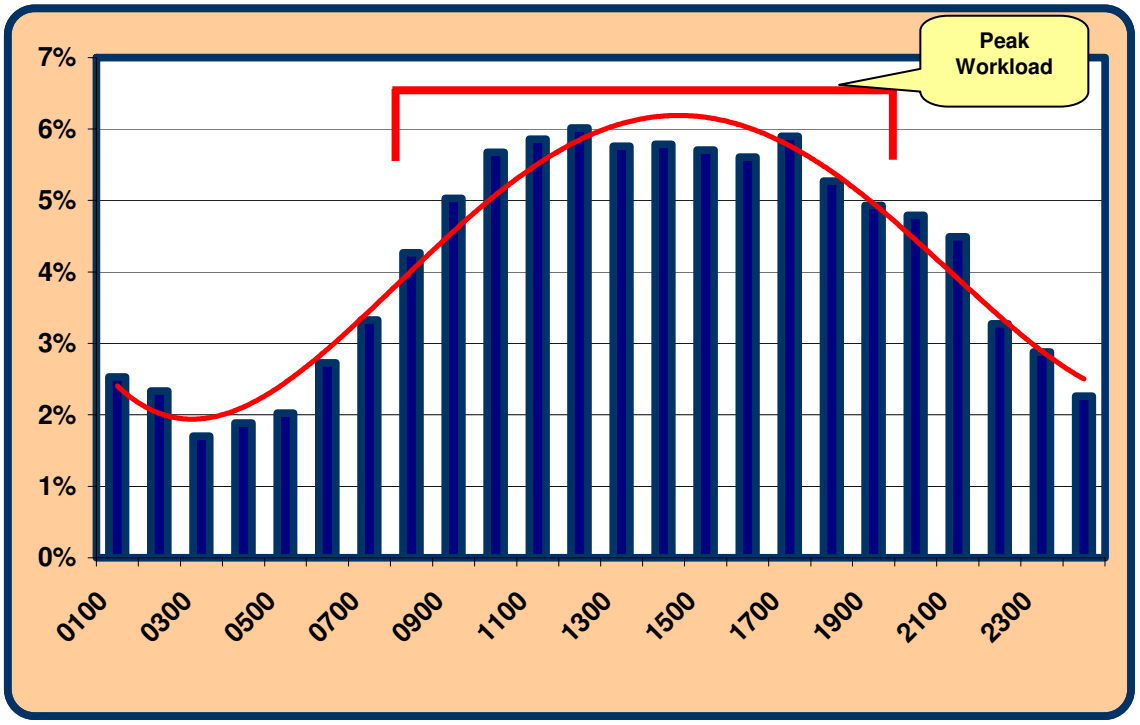


There appears to be a consistent, urban-like workload pattern for both SKFR and CKFR as incident activity is analyzed by hour of day. In spite of the wide variance in the geographic and demographic

profile of the three jurisdictions, the hourly breakdown of incident workload is consistent. As noted in Figure 62 and Figure 63, the peak workload activity period for CKFR and SKFR looks similar to that of the Bremerton Fire Department. The demand for service typically stretches from mid morning until late evening. As seen in many other studies for fire district agencies this size, there appears to be a pattern of workload demand which predictably taxes the fire district's resources during 'business hours' when inspections, maintenance, and training occur. Further discussion is provided in the Partnering Strategies section of this report will address this issue and the effects on busier resources.

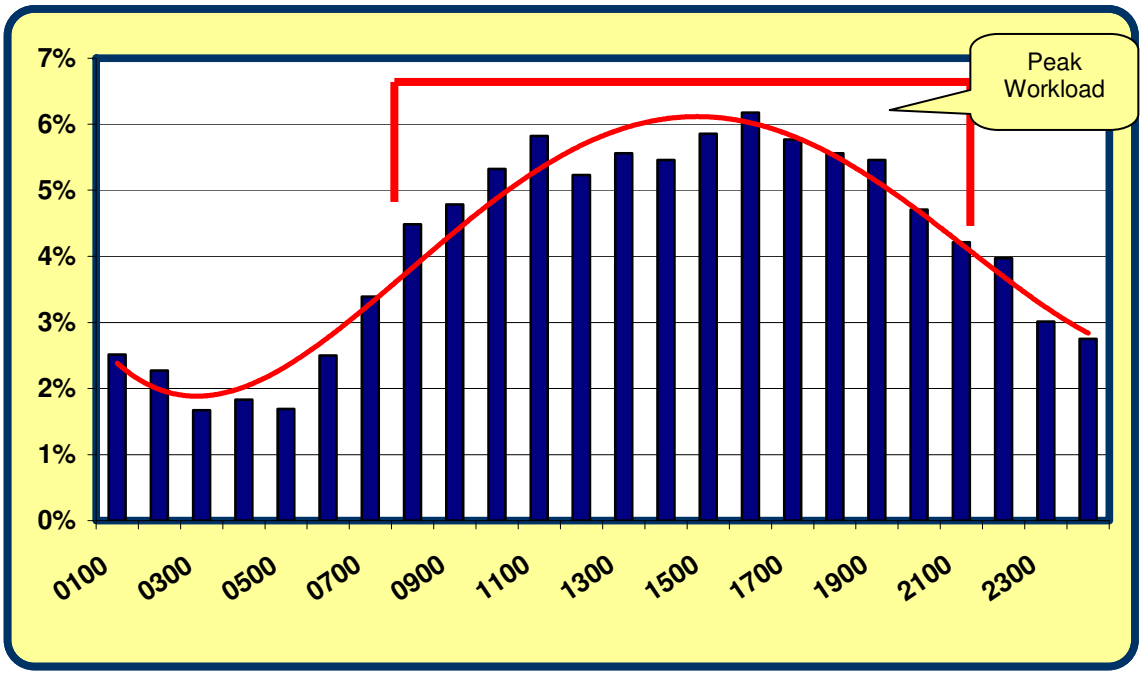
Figure 62 demonstrates the tracking of CKFR incident workload on an hourly increment throughout 2005. Because the incident data provided is holistic, there is no differentiation between incident activity and data collection for the respective fire zones of CKFR and SKFR.

Figure 62: – CKFR Incident Workload by Hour of Day (2005)



Viewing SKFR hourly workload (Figure 63) presents the same picture as its neighbors. Highest demand for emergency services is generated during the busiest time of the day

Figure 63: – SKFR Incident Workload by Hour of Day (2005)



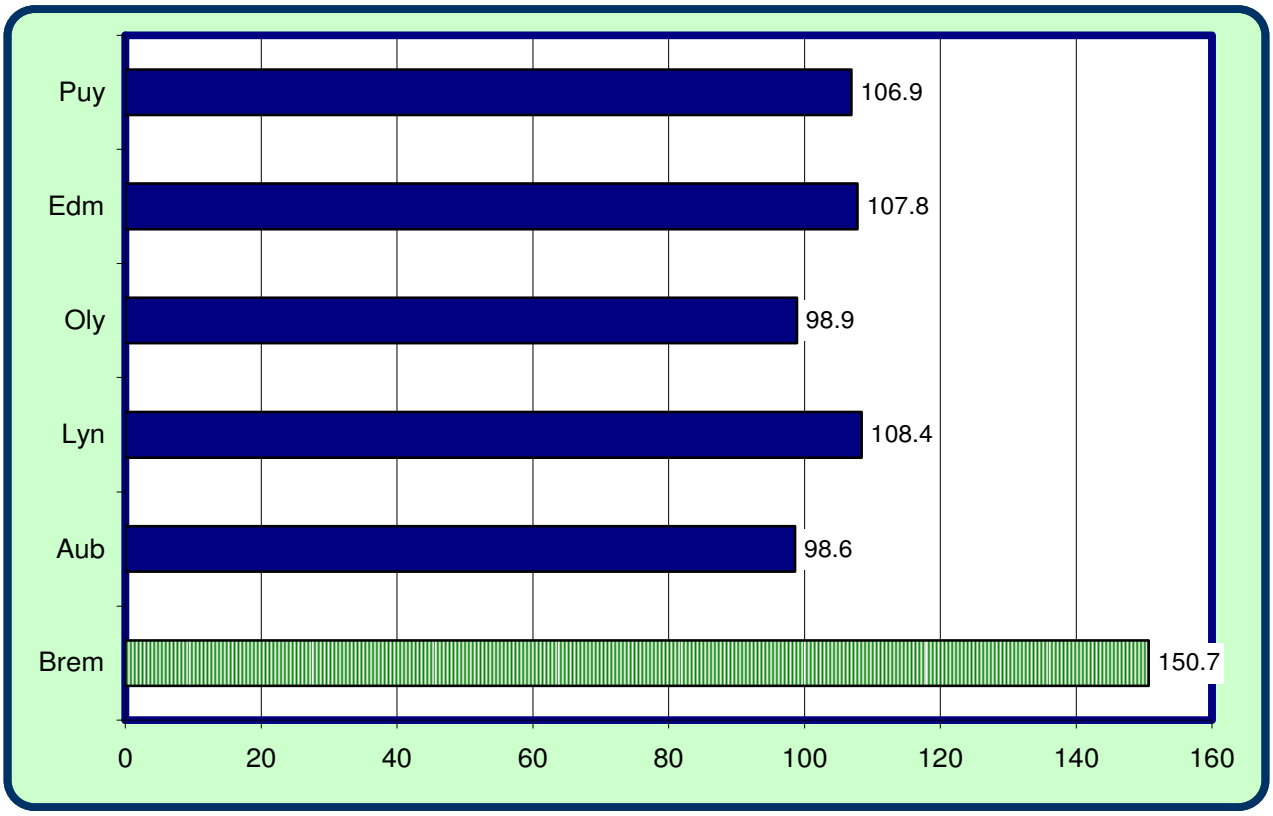
A workload of this profile also often reflects on the fire agency's ability to conduct regular, non-emergency business in the fire station and around the community. When evaluating a typical hourly demand profile such as those of the Kitsap County fire agencies, one should generally plan on conducting certain activities or provide increased staffing outside peak activity periods.

Incidents per FTE

Another measure of the workload of a fire agency is the number of incidents the operational staff responds to in a given year. This profile gives the reader an opportunity to compare the workload of his agency to other Puget Sound agencies of similar size.

ESCi conducted a survey of surrounding Pierce County and King County agencies to view a comparative value of the number of incidents per full-time firefighter (FTE) each agency had experienced for 2005. This figure includes all emergency, non-emergency, and mutual aid incidents to which the agencies responded. The 'Incidents per FTE' data in Figure 64 and Figure 65 provides a graphic image of that comparison.

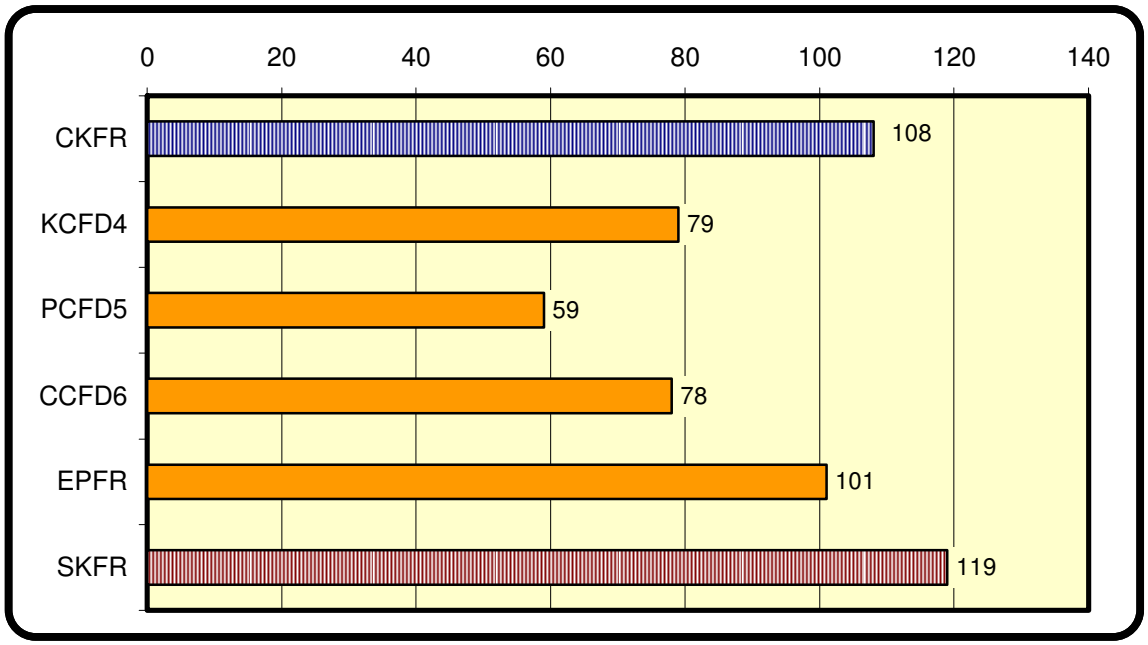
Figure 64: – BFD Incidents per FTE Comparables (2005)



The Bremerton Fire Department's workload is the highest within the Puget Sound area comparables. Regardless of the raw number of personnel available to a department, what matters most is the actual number of emergency responders the agency is able to produce at an emergency scene. This relates to the actual number of emergency responders available for immediate deployment. While BFD's career staffing system distributes up to 16 personnel on each of three shifts, it is important to note that this number is not necessarily reflective of the actual number of personnel on-duty each day. Sick leave, vacation, injuries, and other circumstances, impact the actual number of on-duty personnel.

In the same manner, CKFR and SKFR were compared to their Puget Sound peers. As shown in the following figure, the Kitsap fire agencies have a higher workload per FTE than any of their other peer organizations. The staffing levels range from 17 - 22 firefighters per shift in CKFR and 15 - 21 firefighters per shift in SKFR.

Figure 65: – CKFR and SKFR Incidents per FTE Comparables (2005)



Resource Analysis

Fire department deployment, simply stated, is about the *speed* and *weight* of the response. Speed calls for first-due, all-risk intervention units (apparatus) strategically located across a city or fire district. These units are tasked with responding 'first in' and controlling everyday moderate emergencies without the incident escalating to a full alarm or greater size, which requires more personnel and equipment, which unnecessarily depletes resources as multiple requests for service occur.

Weight is about multiple units responding to emergencies. In these situations, enough firefighters must be assembled in a reasonable time frame in order to safely control the emergency without it escalating to greater alarms. Thus, small fires and some medical emergencies may require a single crew. Larger incidents may require more crews. In either case, if the crews arrive too late or are understaffed for the emergency, the results may not be what are desired.

Bremerton, CKFR, and SKFR Facility Distribution

As previously mentioned, Bremerton, CKFR, and SKFR maintain 31 fire stations located throughout the project area as well as a number of support and administrative facilities. The fire agencies' fleet of emergency apparatus includes a variety of modern fire engines, EMS units, command units, and other specialized equipment. Each agency also maintains aerial devices.

Careful community planning begins with establishing levels of service and response performance standards that meet nationally recognized and tested standards. The process once again begins with careful location of fire department resources: fire stations, apparatus, and staffing.[22]

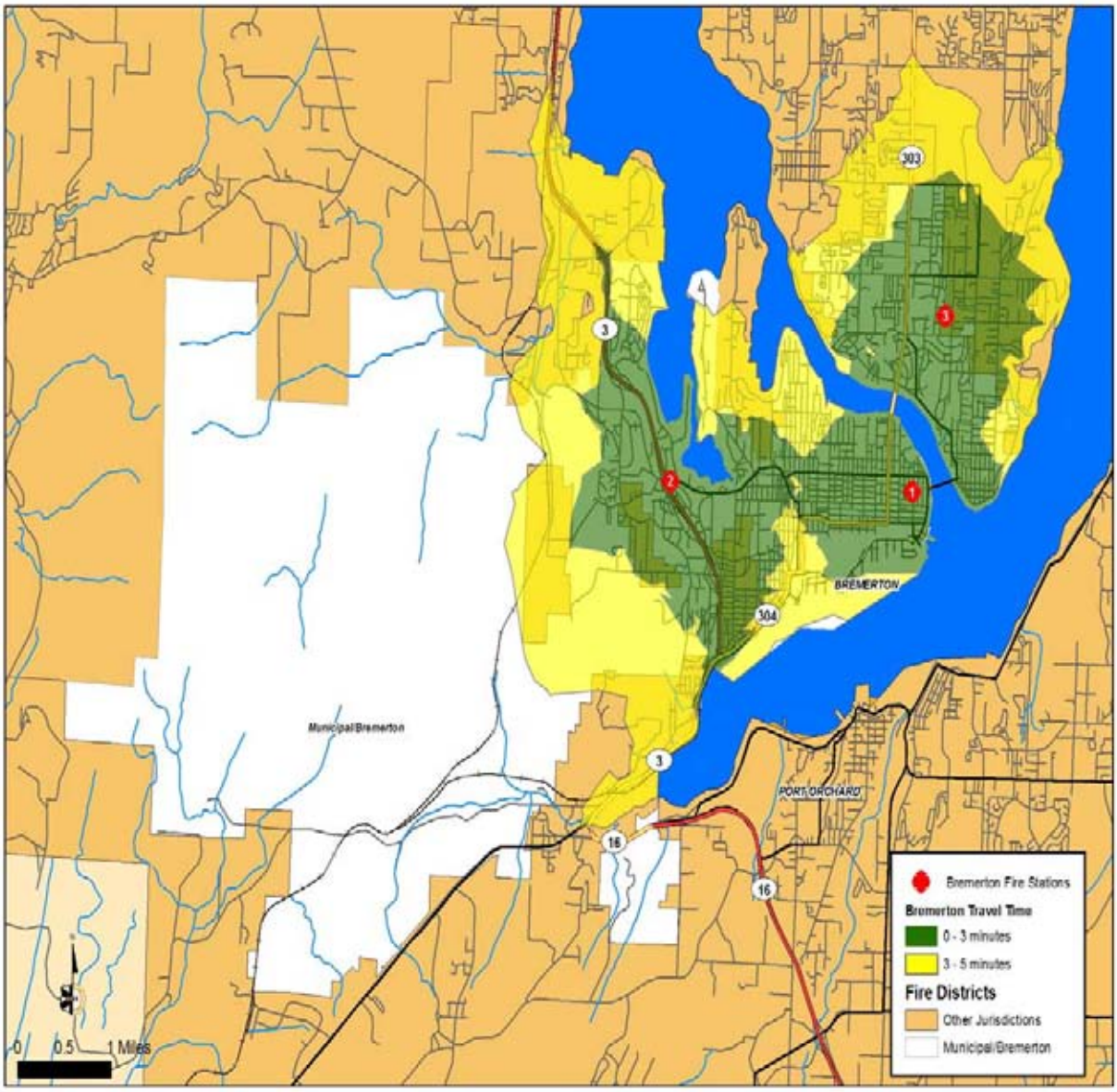
The figures below are provided to demonstrate and benchmark the current locations and theoretical travel time coverage of BFD, CKFR, and SKFR fire stations. ESCi's graphic information systems (GIS) models calculate total time necessary to travel each mapped street segment based on an average travel speed assigned to the segment. Travel speeds are allocated based on road type and condition. The software permits 42 different road type classifications, from footpaths to limited-access freeways.

This report displays the three facility distribution and travel time profiles from a purposefully independent viewpoint to give the reader a look at the distribution profile of each agency irrespective of the close proximity the neighboring project agencies have to each other. Later in this report several distribution models are presented from an overall project profile, which views the fire station distribution and travel overlap of all three agencies and recommends consolidation models to maximize resources and reduce duplication.

In the maps provided, street segments are shown with colored overlays that represent actual travel time from designated fire stations. In Figure 66, the green segments represent areas around each Bremerton fire station that have travel profiles of up to three minutes while areas in the yellow segments represent travel profiles of three to five minutes. In terms of travel times from the fire station distribution model in the city of Bremerton, the response travel profiles indicate that the current fire station locations allow for response travel times to be within the five-minute range.

[22] Ronny Coleman – Ukiah, CA, Master Plan.

Figure 66: – BFD Fire Station Travel Time Segments



In Figure 67 and Figure 68, CKFR and SKFR are given the same travel time profiles to evaluate distribution efficiencies relative to the geographical area of their respective (independent) fire districts. Both figures indicate fire stations noted in red (career staffed fire stations) and fire stations noted in blue (volunteer fire stations). In these figures, green segments represent the areas around each career fire station that can be reached in less than five minutes travel time, while areas in the red segments represent coverage within five to ten minutes. Volunteer fire stations are not included in this travel profile. Street segments beyond a ten-minute travel time have no overlay and are simply shown in a neutral color.

In terms of coverage, these figures indicate that the current locations of the CKFR and SKFR fire stations provide for fairly even and efficient deployment of fire department resources. These profiles are given from an independent perspective if one were viewing from a first unit only deployment.

Figure 67: – CKFR Career Fire Station Travel Time Segments

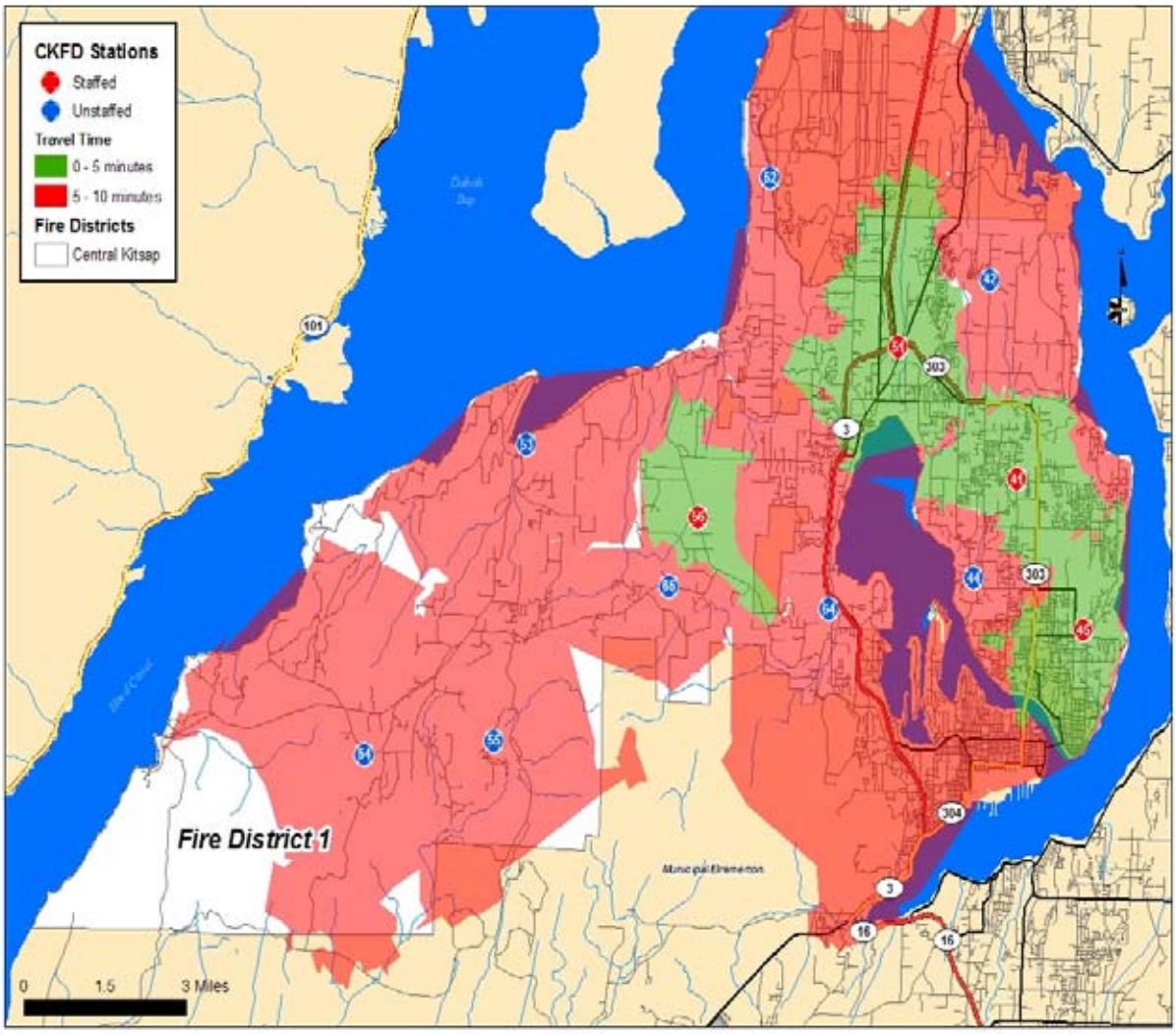
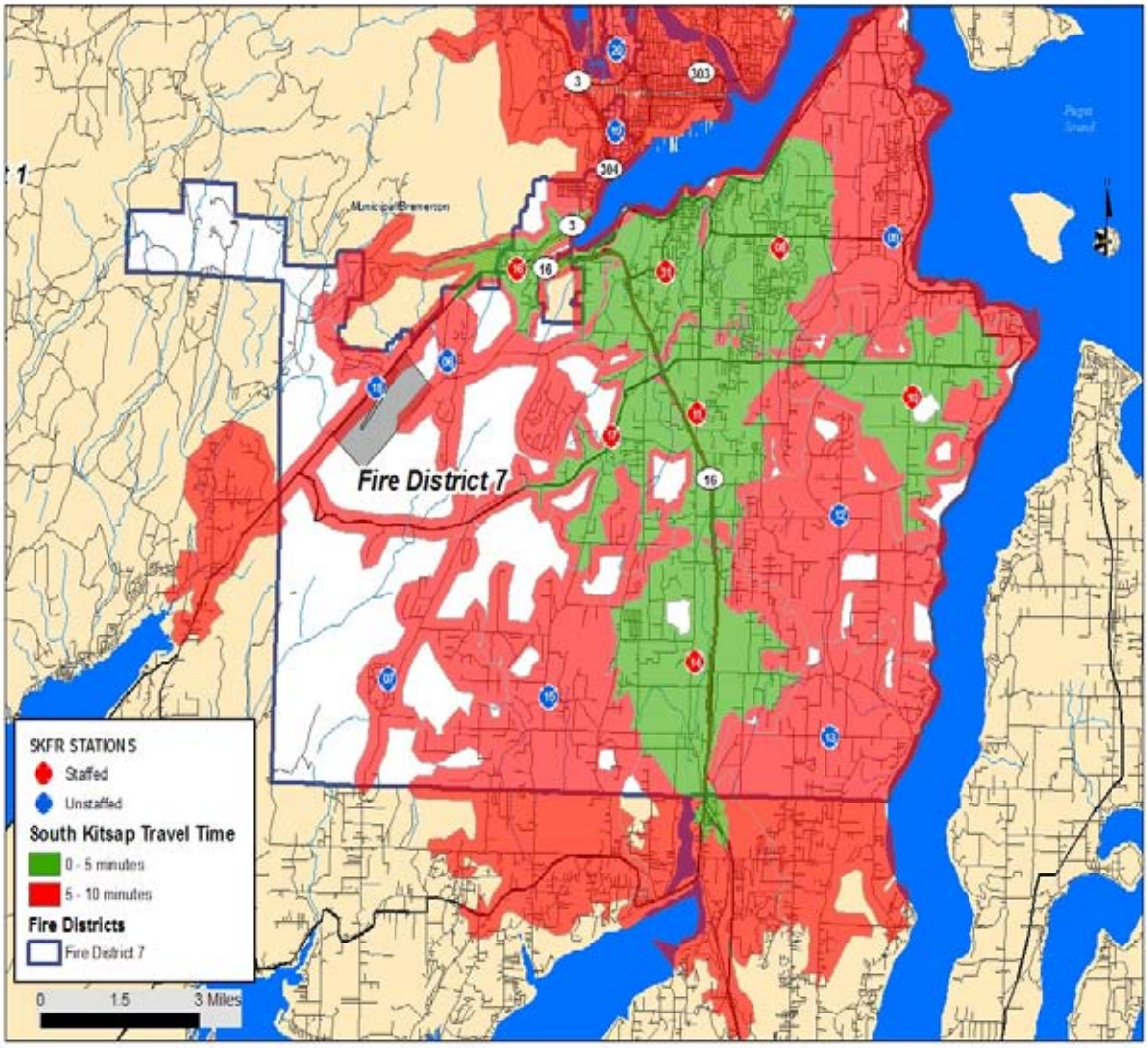
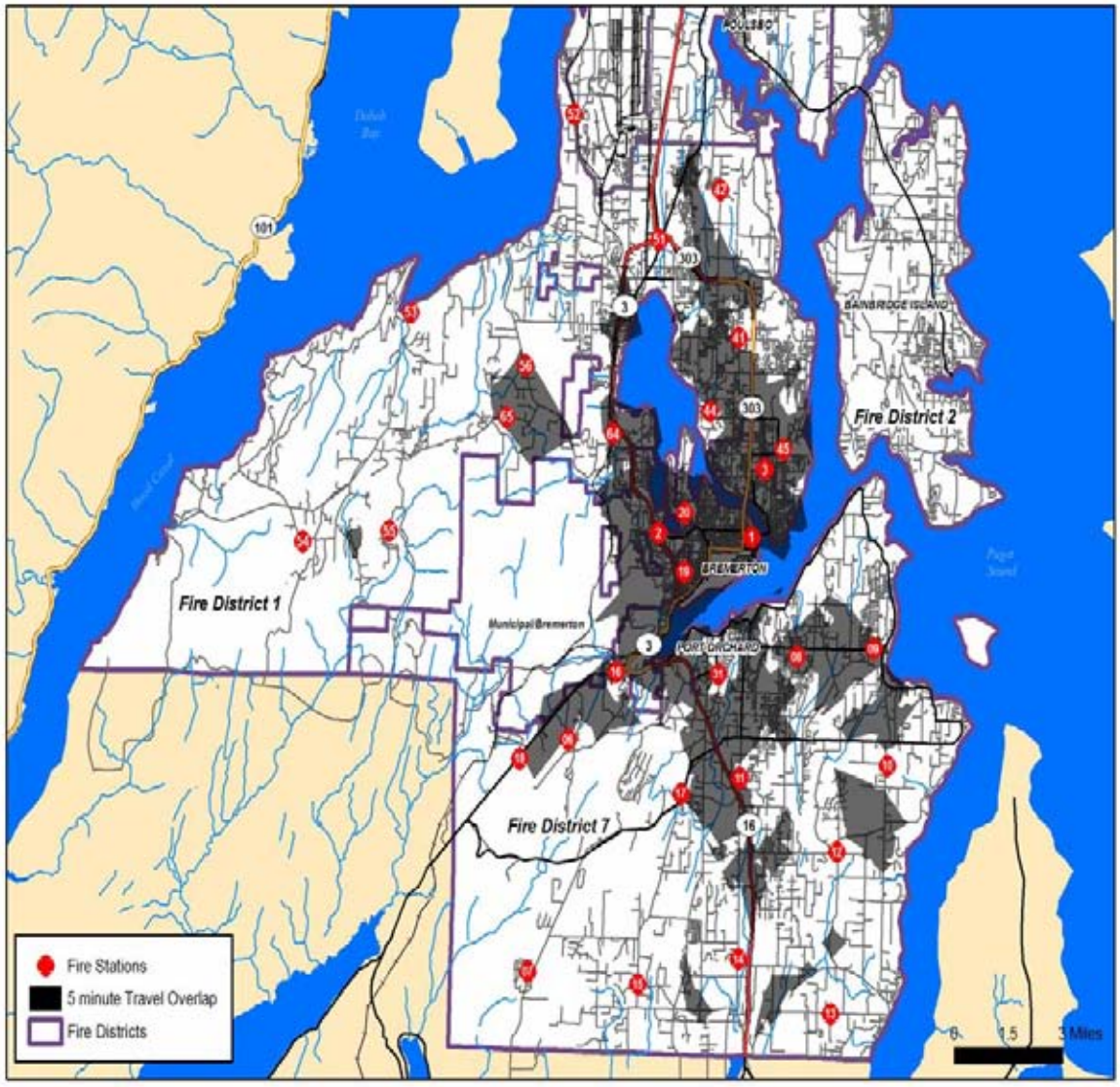


Figure 68: – SKFR Career Fire Station Travel Time Segments



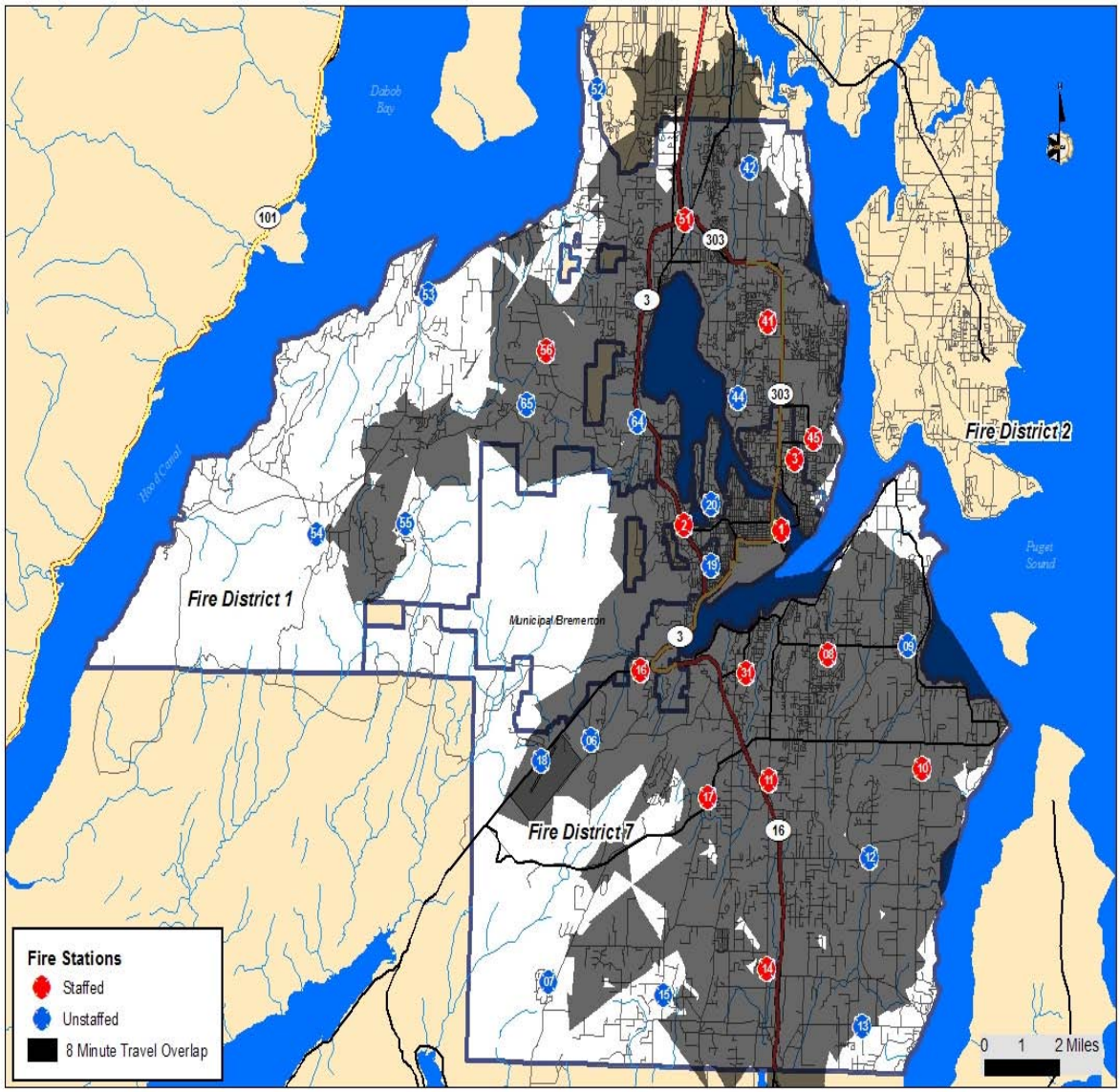
The current distribution model of the three combined agency fire station profiles finds significant coverage overlap. This leads to a later discussion of redistribution of resources. Figure 69 shows a five-minute travel time overlap when viewed from a regional approach (dropped boundaries). As one can see, there is a significant amount of overlap between the Bremerton, CKFR, and SKFR fire station response areas in the core area of the project.

Figure 69: – Five-Minute Career Fire Station Overlap, Kitsap County Agencies



As shown in Figure 70, expanding the overlap out to an eight-minute travel time increases duplication when viewed from a regional standpoint. This picture depicts some inefficiency when viewed from a *distribution* perspective. However, other considerations come into play when analyzing these tables from a *concentration* perspective. That discussion follows later in this report when profiling issues of resource depth and unit reliability.

Figure 70: – Eight-Minute Career Fire Station Overlap, Kitsap County Agencies



When examined from a global perspective, there is evidence of significant efficiency opportunities with regard to the current resources and levels of service provided by the Bremerton Fire Department, Central Kitsap Fire & Rescue, and South Kitsap Fire & Rescue. Figure 71 provides a location description of the BFD, CKFR, and SKFR fire stations.

Figure 71: – Fire Station Location Description Table

Agency	Station #	Station Name	Status	Quarters
BFD	1	Downtown	FTE	Yes
BFD	2	Westside	FTE	Yes
BFD	3	Eastside	FTE	Yes
CKFR	41	Meadowdale	FTE	Yes
CKFR	42	Island Lake	Vol	No
CKFR	44	Tracyton	Vol	Yes
CKFR	45	North Perry	FTE	Yes
CKFR	51	Silverdale	FTE	Yes
CKFR	52	Olympic View	Vol	No
CKFR	53	Seabeck	Vol	No
CKFR	54	Hintzville	Vol	No
CKFR	55	Lake Tahuyeh	Vol	No
CKFR	56	Seabeck/Nicholas	FTE	Yes
CKFR	64	Chico	Vol	Yes
CKFR	65	Wildcat Lake	Vol	No
SKFR	6	Sunnyslope	Vol	No
SKFR	7	Wye Lake	Vol	No
SKFR	8	Orchard Heights	FTE	Yes
SKFR	9	Yukon Harbor	Vol	Yes
SKFR	10	Banner	FTE	Yes
SKFR	11	Bethel	FTE	Yes
SKFR	12	Olalla	Vol	No
SKFR	13	Nelson	Vol	No
SKFR	14	Burley	FTE	Yes
SKFR	15	Minterbrook	Vol	No
SKFR	16	Gorst	FTE	Yes
SKFR	17	Glenwood	FTE	Yes
SKFR	18	Airport	Vol	No
SKFR	19	Navy Yard City	Vol	Yes
SKFR	20	Rocky Point	Vol	No
SKFR	31	Port Orchard	FTE	Yes

Further discussion of BFD, CKFR, and SKFR response performance is included in Appendix H of this report.

Financial Evaluation

Introduction

Financial analysis is an important part of the evaluation of partnership alternatives. To this end, ESCi has reviewed the financial programs for each of the fire agencies.

History

Funding for fire districts in the state of Washington is provided, primarily, via property tax. Funding for municipalities – cities and towns – is also provided by property tax, but a municipality's ability to generate revenue through fees, franchise taxes, sales tax, and other methods is only limited to an elected body's imagination and political will. For the purpose of this study, the ensuing summary will primarily address *fire district funding*.

Taxation within a fire protection district is in accordance with the provisions of the Washington State Constitution.[23] RCW 52.12.021 further grants fire protection districts the authority to levy and enforce the collection of "…*taxes and special taxes in the manner and within the limits provided in Title 52 RCW against all lands located within the district.*" (Italics added.)

The law, established in 1939, allowed for the collection of property tax by fire districts up to $1.00 per $1,000 of assessed value on 'improved property'. This levy rate was increased later to $1.50, provided the fire district employed one or more full-time employees.

In 1979, because of the birth and growth of *fire-based* emergency medical services systems in the state, the Washington State Legislature passed additional legislation which allowed cities and fire protection districts to collect an additional $0.25 property tax on *all* properties (improved and unimproved) exclusively for the provision of EMS services. This is a property tax levy that requires a *super majority* voter approval to renew every six years.

Seven years later, with the maturation of advanced life support (paramedic) services, the legislators granted additional taxing authority to cities and fire protection districts for an additional $ 0.25 if the entity was providing or funding ALS services to its jurisdiction. This made the maximum taxing authority for EMS in cities and fire districts within the state of Washington an even $0.50 if approved by a super-majority of the voters.

[23] Article XI, section 12 that provides that the state will vest the power to assess and collect taxes with a public municipality.

Recently passed legislation altered the renewal options for an EMS levy; now fire/EMS agencies can ask voters to approve a six-year EMS levy; a ten-year EMS levy, or a 'permanent' EMS levy (supermajority voter requirements apply).

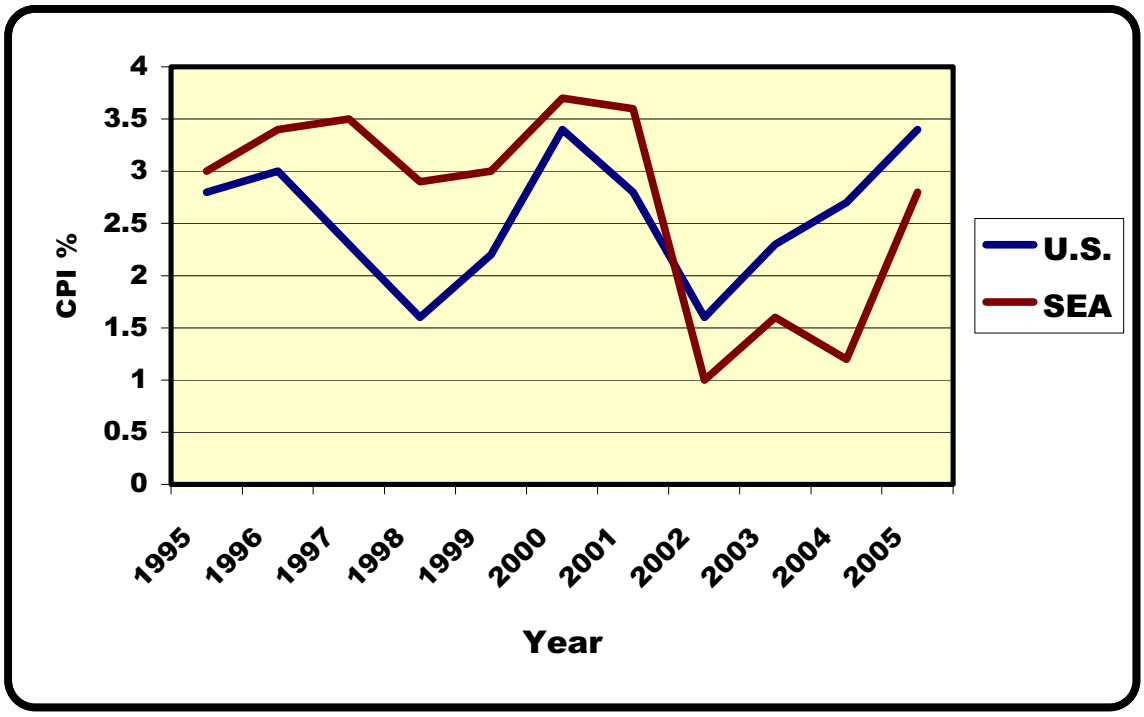
Because of the differentiation of taxing for regular fire tax (on *improved* property only) and the EMS tax (on *all* properties) in the state, a fire district may annually receive official notice from its county assessor of *two* different assessed valuations for its jurisdiction.

While the concept of funding fire protection services by imposing an annual tax on the assessed valuation of improved properties is correlative, there is *no identifiable relationship* between taxing *property* and the demand for emergency medical services. As such, EMS—a service that places high demand on most fire departments—is inadequately funded in the state of Washington.

The state of Washington has undergone a series of restricting tax referendums initiated by its constituents. The most recent and the most restrictive initiative was adopted in 2001. While earlier laws limited a public municipality's ability to collect property tax to no more than 6 percent per year, additional attempts have been made to shrink that tax cap even further. The latest, Initiative 747, imposes a *1 percent cap* on the increase in tax revenue each fiscal year for a public taxing entity. New construction revenue plus the tax revenue of 1 percent above the previous year equates to a 3 to 4 percent increase in tax revenue in rapidly growing areas of the state.

While the cost of operating government has steadily grown over the past 20 years throughout the country, the most recent property tax referendum in Washington State is so restrictive to local governments that it does not even keep up with the cost of living for the Seattle/Tacoma area. The Seattle/Tacoma Regional CPI-U fluctuates from year to year based on consumer information compiled by the U.S. Bureau of Labor. The following chart shows a ten-year history of the CPI-U from 1995 through 2005, comparing Seattle/Tacoma CPI-U to the U.S. CPI-U. During that time, the Seattle/Tacoma CPI-U has varied from a low of 1.2 percent to a high of 3.7 percent. The ten-year average of the CPI-U equals slightly more than 3.06 percent.

Figure 72: – CPI-U for Seattle/United States



The cyclic nature of property value growth relates to legislation requiring counties to reassess all real property at least every three years based on fair market value.[24] On the average in western Washington, and especially in the Puget Sound area, property values have been skyrocketing at an average pace of approximately 10 - 15 percent or higher per year. In order to comply with Initiative 747 (1 percent cap), county assessors, when calculating annual property tax assessments for cities, towns, and special purpose districts, are forced to reduce the tax levy rate of fire districts dramatically each year in order to keep property tax increases under the 1 percent limit. Even though fire districts are authorized up to $2.00 per $1,000 of assessed value of property in the fire district when combining fire and a full EMS property tax, Initiative 747 (101 percent lid law) causes this tax levy rate to erode quickly downward in moderate to fast growing communities.

RCW 84.53.550 authorizes cities, towns, and special purpose districts to "lift the tax levy lid" back to the authorized amount by a simple majority of the voters.[25] This has caused more progressive municipalities

[24] Fair market value is the price at which a willing buyer will pay a willing seller.

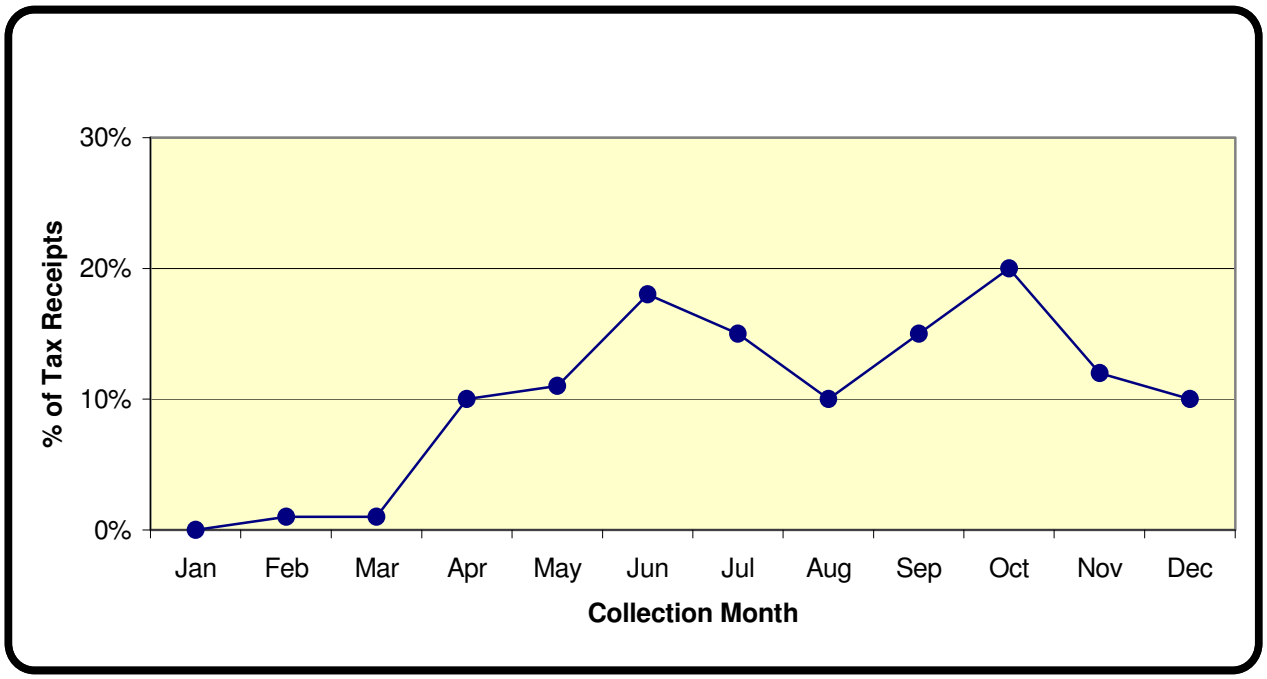
[25] Legislation considered in early in 2006 to allow 'lid lifts' to last six years was approved by Legislative Committee but did not make it to the floor for a vote. Anticipation is that this extremely helpful law will be enacted in early 2007, bringing great relief to communities and fire districts.

in the state to develop a financial strategy of going to the voters annually for the purposes of gaining authorization to keep their tax levy rate at the authorized level—$1.50 for fire and $0.50 for EMS.

As stated earlier in this report, fire districts in the state of Washington are funded primarily by taxes levied against improved property for regular fire tax and both improved/unimproved property for the EMS levy. As such, the receipt of property tax by the county assessor (which subsequently is transferred to the fire district's account in the county treasurer's office) occurs on a predictably cyclic basis. Property tax statements are mailed to property owners once a year. Subsequently, the flow of property tax revenue is reflected by a 'bow-wave' influx of funds into the fire district's cash fund a month or so after property tax statements are mailed. For that reason, fire districts are compelled to 'carry-over' a sizeable amount of funds in the expense fund each year for the purpose of continuing business until property tax revenue begins to flow for the current budget year. This is not to be confused with the 'Reserve Fund' which most fire districts maintain for various capital projects.

The following figure illustrates a typical property tax revenue flow for a fire district in Washington State. Concurrently, fire districts with good budgeting practices match the control of their expenditures to the flow of property tax revenue. In such cases, the expenditure of fire district funds (other than for personnel, necessary operational supplies, and utilities) would mirror the same table.

Figure 73: – Typical Property Tax Revenue Flow for Fire Districts

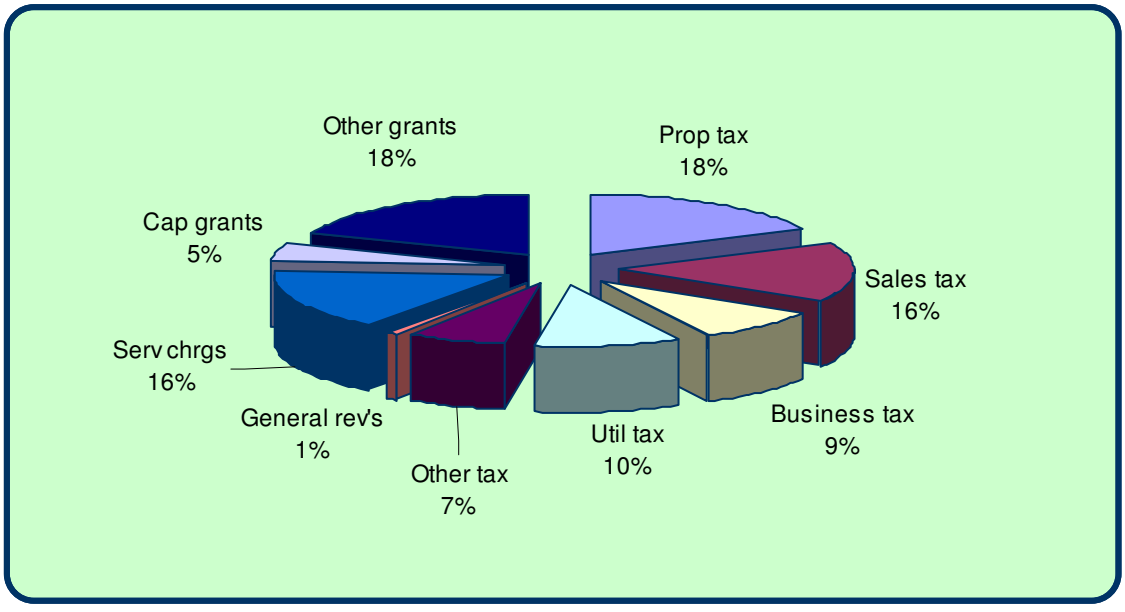


Financial Analysis – Bremerton Fire Department

Funding for the City of Bremerton Fire Department is reflective of most other municipalities in the state of Washington. The Bremerton General Fund is funded by a number of revenue sources. While the percentages may change from community to community, the revenue sources are principally the same. In areas where larger malls or other retail attractions are abundant, there is generally a responsive increase in the sales tax revenue. Comparatively speaking, Figure 74 provides a breakdown of revenue sources for the city of Bremerton for 2006. It should be noted that while property tax appears to be in the range of most other city budgets, Bremerton's sales tax receipts are low for a city of its size. This is evidenced by the amount of retail growth and the mall in the Silverdale area – which is outside of the city limits.

The budgeting process for municipal (city) fire departments is fairly simple and unscientific. Primarily, it consists of each division and/or discipline of the respective city government competing for the city's General Fund. While some city's use financial strategic planning goals and performance targets for the divisions to meet (and base their budgets on), most city budgets are based upon the crises at hand and the political priorities (or favorites) of the current elected body.

Figure 74: – City of Bremerton Revenue Sources (2006)



In order to gain a view of financing for the Bremerton Fire Department, ESCi briefly evaluated the five city jurisdictions which were submitted by the city of Bremerton as comparables.

As a part of the analysis of staffing and response performance, ESCi provided a number of comparable tables earlier in this report for the purpose of 'bracketing' Bremerton with the other cities submitted for consideration. In those tables, we examined and discovered that the population base and square miles of Bremerton were very similar to those of the other cities. Bremerton lagged behind in other tables with the number of full-time fire personnel while indicating a much heavier workload and a much higher incident-per-FTE rate than its peers. These facts occurred both on a western regional aspect as well as with Puget Sound peers.

To further quantify the financial profile of Bremerton, Figure 75 takes the same six comparable cities and compares the 2006 assessed value of all property in the respective jurisdictions. This is followed later by Figure 77 which profiles the total General Fund budget for 2006 for each jurisdiction as well. As seen in Figure 75, the city of Bremerton has a very low assessed value of property. The low assessed value and the high cost of operating a fully career fire department will nearly double the cost per 1,000 population of the city fire department budget over the respective fire districts.

Figure 75: – City of Bremerton Assessed Value (2006), Puget Sound Comparables

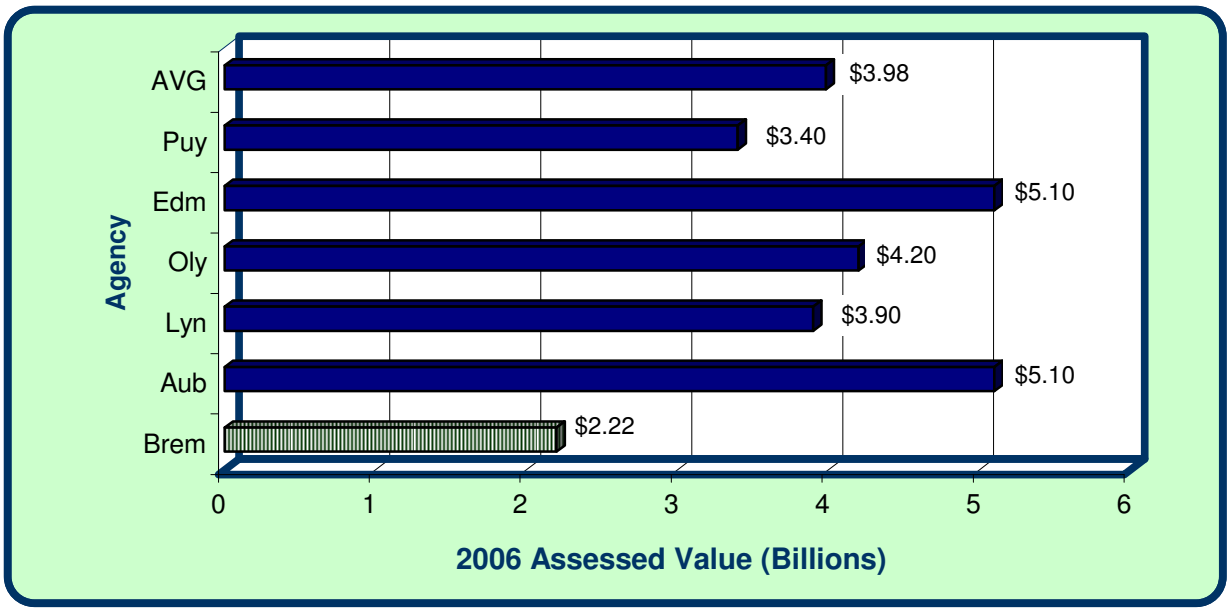


Figure 76 illustrates the historical trend of low economic growth of the city of Bremerton as indicated by the nearly flat growth trend of its assessed value over the last five years

Figure 76: – City of Bremerton Assessed Value History

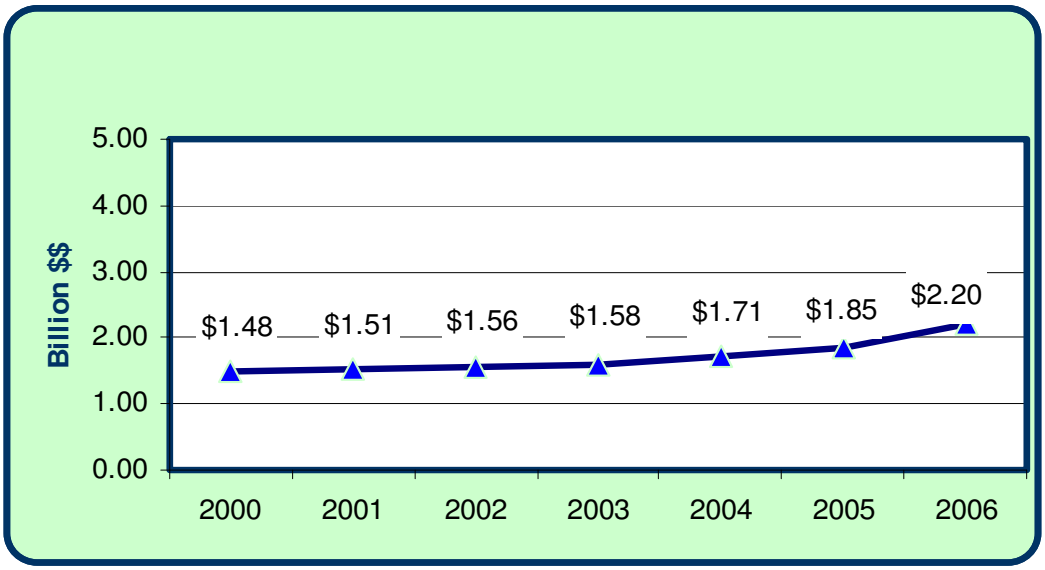


Figure 77 compares the 2006 General Fund totals for the six Puget Sound municipal jurisdictions.

Figure 77: – City of Bremerton General Fund Puget Sound Comparables (2006)

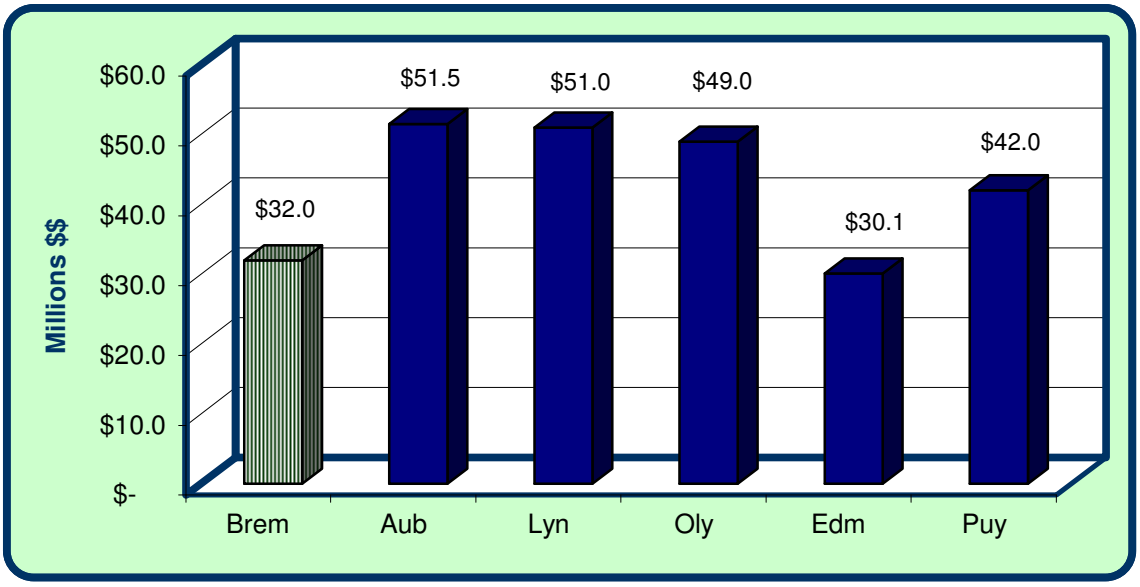


Figure 78 indicates the total dollar commitment each jurisdiction dedicates for fire and EMS operations.

Figure 78: – BFD Operating Budget, Puget Sound Comparables (2006)

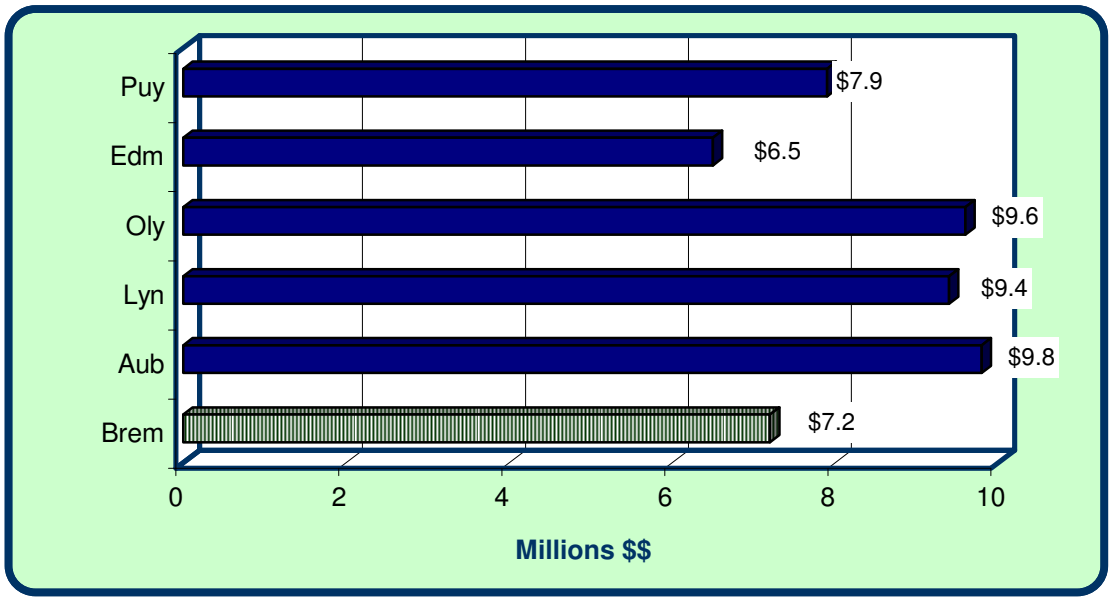


Figure 79 illustrates the percent of city budget allocated to the fire Puget Sound comparable fire departments.

Figure 79: – BFD Budget as Percent of General Fund, Puget Sound Comparables (2006)

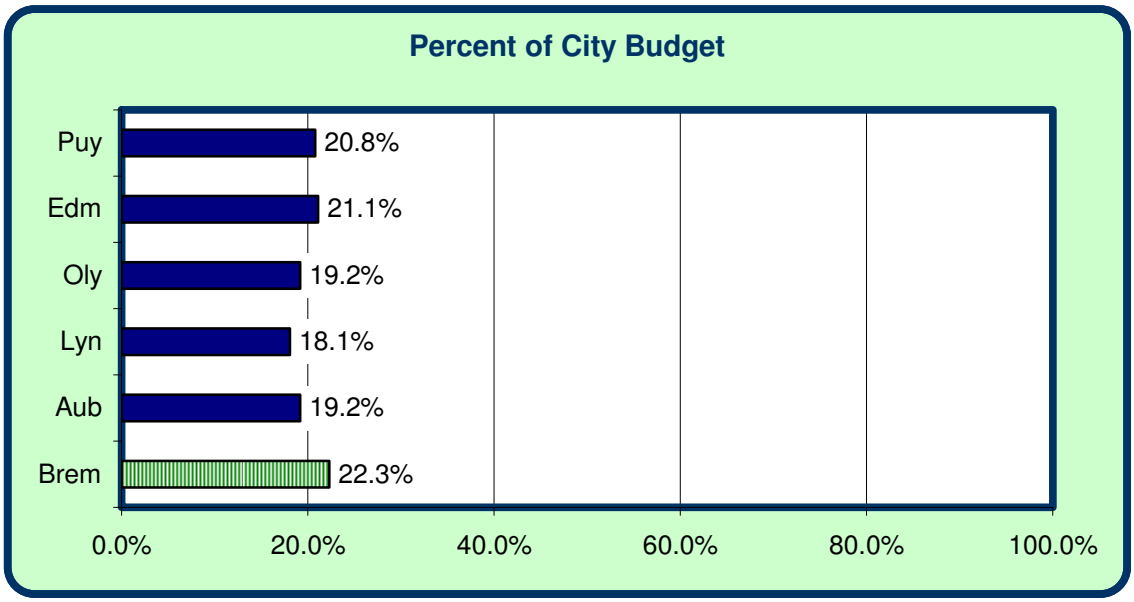
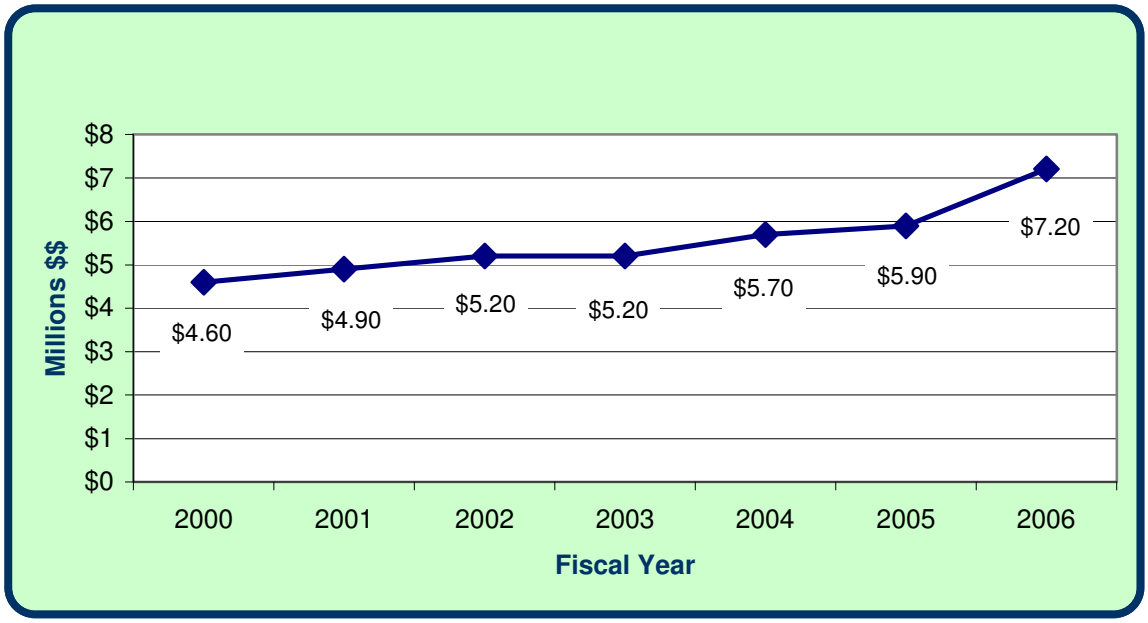


Figure 80 completes the financial profile of the Bremerton Fire Department. The contribution of the city of Bremerton to fire protection and emergency medical services has been constant and upward over the last decade despite the stunted growth of the community's economy. The budget totals shown in Figure

80 also reflect the 'soft costs' which ESCi was able to calculate for the 2006 budgets provided. In most municipal (city) fire departments, there are generally a number of administrative or support services provided by the city government that do not reflect directly into the fire department budget. Those costs would include insurance, HR services, legal services, administration and/or IT. There are also occasions where fire department budgets do not reflect utility costs or other support/maintenance service to their operation. The 2006 fire department budget, for the City of Bremerton estimated the additional 'soft costs' were approximately $472,000; there may be more undetermined costs as well.

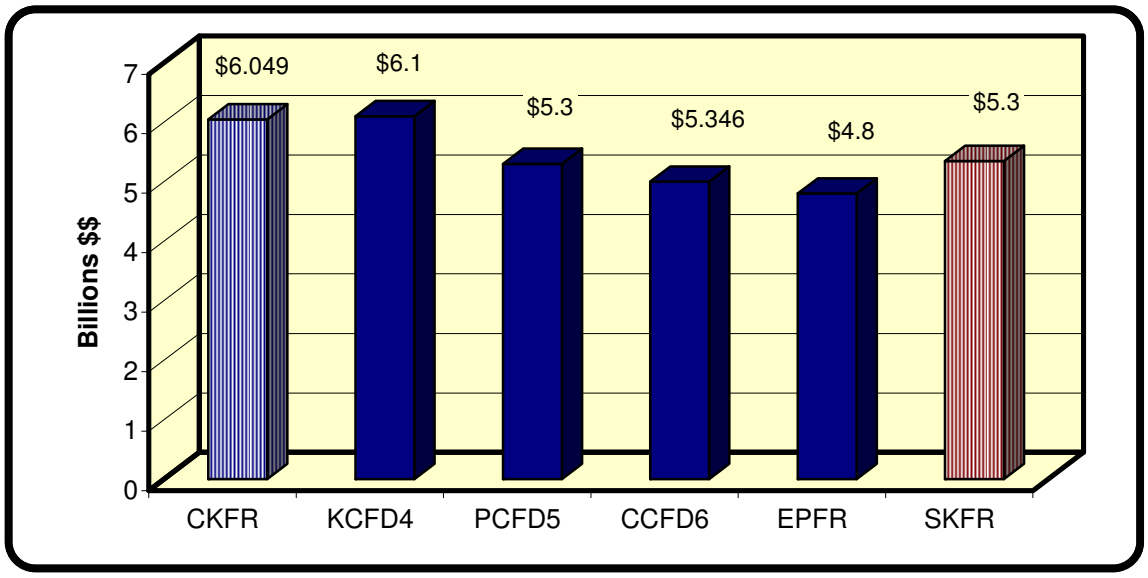
Figure 80: – BFD Budget History



Financial Analysis – CKFR and SKFR

A similar exercise occurs with Central Kitsap Fire & Rescue and South Kitsap Fire & Rescue. We begin the analysis and overview process by 'bracketing' the comparable Puget Sound fire agencies as we did with the Bremerton Fire Department in order to establish a credible platform. ESCi was provided a list of fire agencies that each Kitsap agency considered comparable for the purposes of this study. Figure 81 is a table that illustrates the total assessed evaluation of each fire agencies jurisdiction.

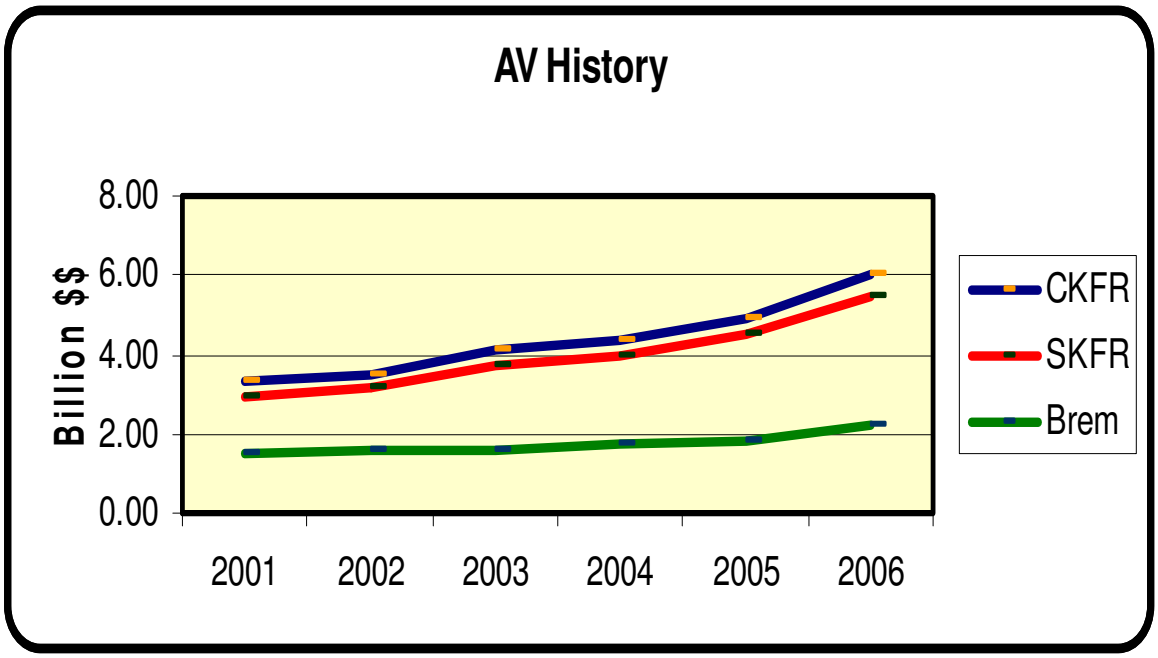
Figure 81: – CKFR and SKFR Assessed Values, Puget Sound Comparables (2006)



As discussed in the Bremerton profile, municipal agencies generally have multiple forms of revenue of which property tax plays a lesser role than with fire districts. With fire districts, the primary revenue source for funding lies with the collection of a fire protection property tax levy and an emergency medical services property tax levy; which is why comparing assessed values of property becomes foremost in a financial overview. In most fire district budgets, 60 percent of the annual funding comes from the collection of a fire protection levy; 25 percent of the revenue is generated by the collection of a levy for emergency medical services, and the remaining funds come from other sources of revenue such as EMS transport billing, contracts, fees from school districts, investment revenue, and other minor contributors. In the case of CKFR and SKFR, EMS transport billing generates over 15 percent of the annual revenue base.

Having provided a background on the importance of property tax, Figure 82 gives a historical growth trend for assessed value of property in the three Kitsap agencies. As noted earlier, the growth factor has been enormous in the county over the past ten years and the rise in assessed value witnesses that compared to the city of Bremerton and other areas across the state of Washington.

Figure 82: – Assessed Value History, Kitsap County Agencies



One of the more accurate means of comparing fire departments in light of cooperative opportunities is to look at their current tax levy rates. Having a considerable 'spread' between tax levies with agencies considering consolidation or integration creates challenges. As shown in Figure 83, both SKFR and CKFR were very comparable in 2006, and further data indicates a levy 'lid lift' by both agencies since this time that keeps the tax levy rates fairly even.

For purposes of comparison, ESCi took the cost of operation for the Bremerton Fire Department and divided it into the assessed value in order to compare it to the other fire districts. A shown in Figure 83, BFD has a cost factor of over $1 per $1,000 of assessed value more than the fire districts. This is very common in the city/fire district profile and again speaks of the funding differences between cities and special purpose districts. It also is a direct result of the below average property value in Bremerton. ESCi finds that this factor alone can be somewhat problematic when integrating a city fire agency to a fire district or fire districts. It is for this reason alone that the regional fire authority approach to integration makes the most sense. There is more discussion concerning this issue later in this report.

Figure 83: – Levy Rates, Kitsap County Agencies (2006)

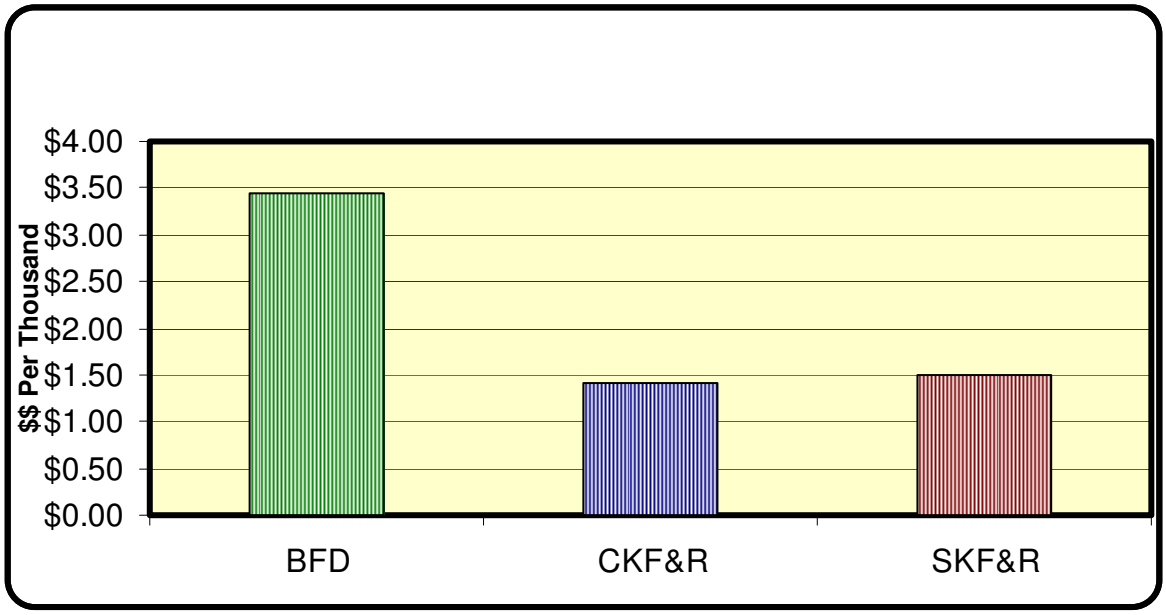
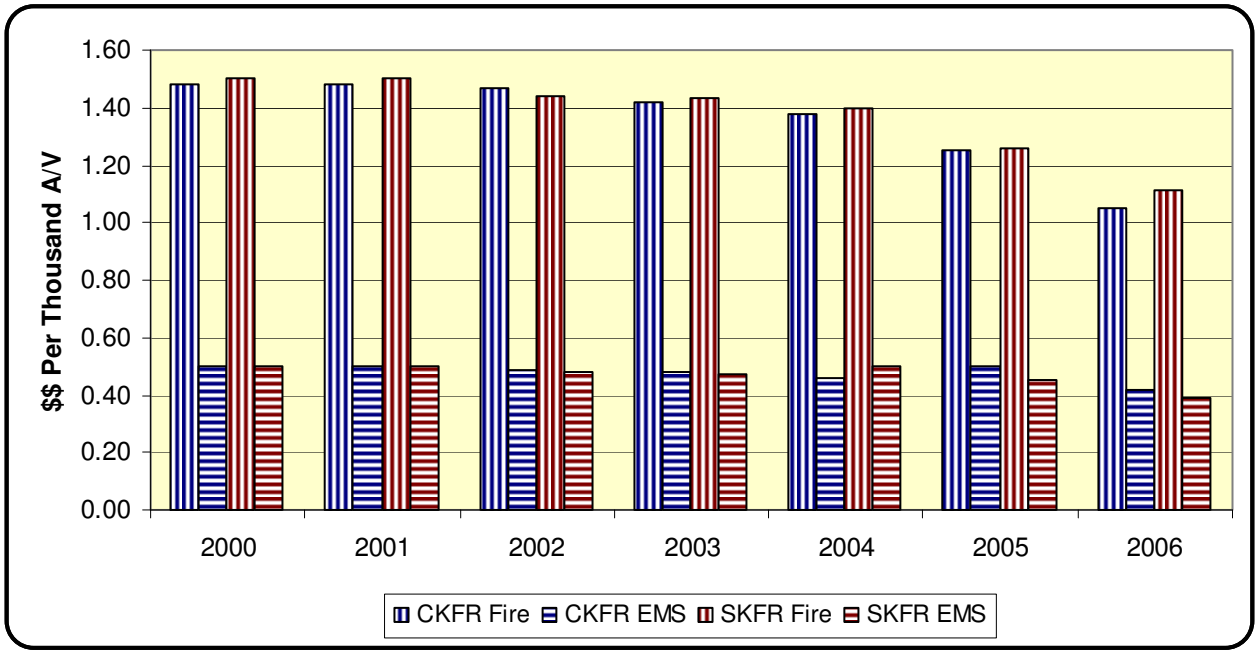


Figure 84 gives the reader a historical view of the levy rate history of Central Kitsap Fire & Rescue and South Kitsap Fire & Rescue. The levy rates over the seven-year period are very similar.

Figure 84: – CKFR and SKFR Seven-Year Levy Rate History



The next graph illustrates operating budgets of the comparable agencies. As shown in Figure 85, with the exception of King County Fire District No. 4 (Shoreline), the Puget Sound agencies are within a comparable range of each other, with CKFR slightly larger than SKFR.

Figure 85: – CKFR and SKFR Operating Budgets, Puget Sound Comparables (2006)

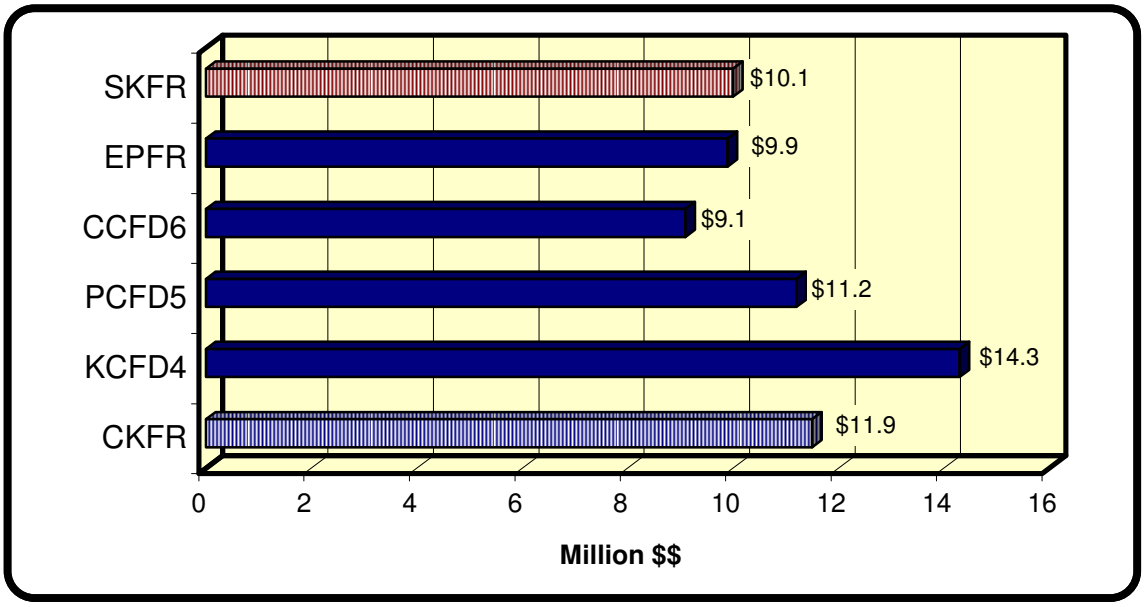
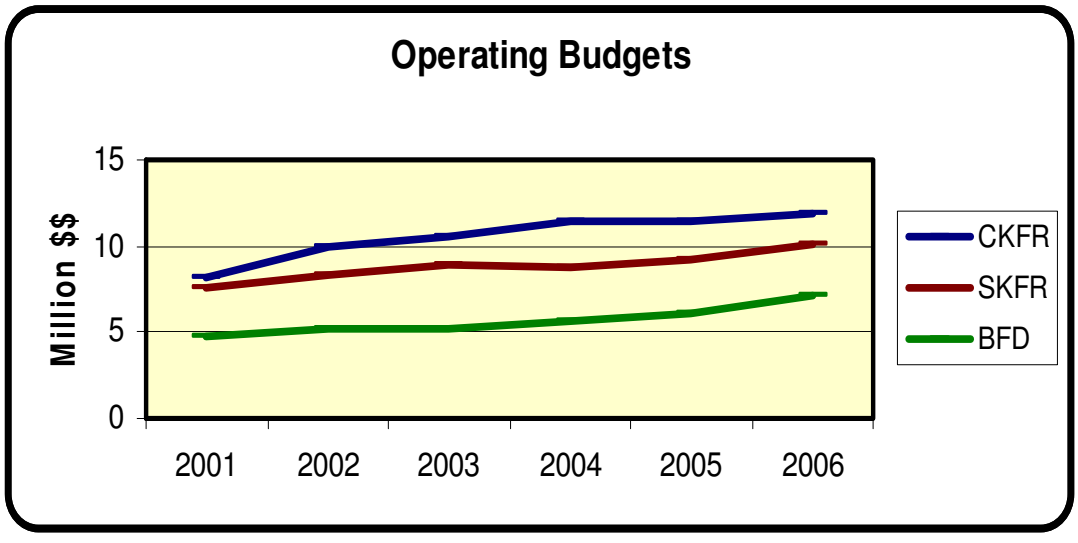


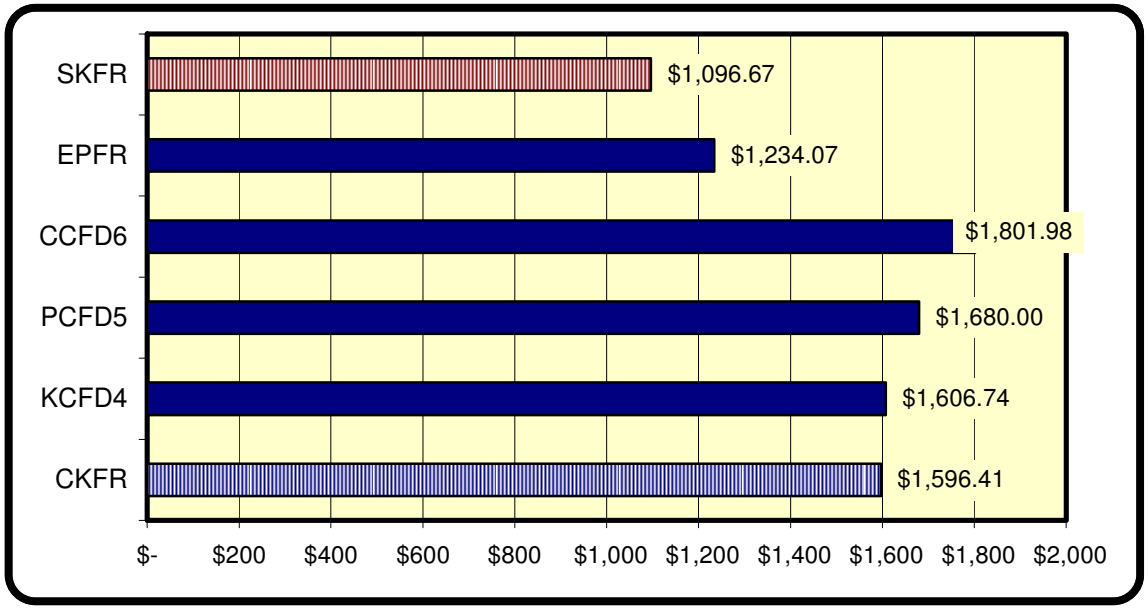
Figure 86 illustrates the growth in the operating budgets. The budget growth matches the growth of assessed values, population, and the demands for service.

Figure 86: – Operating Budget History, Kitsap County Agencies



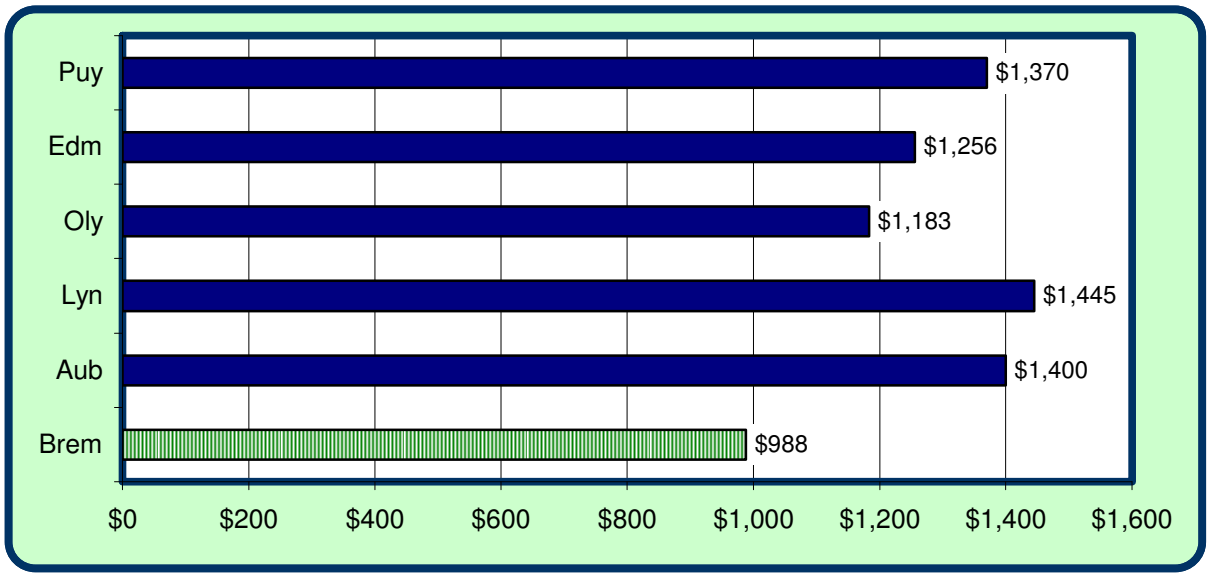
A financial study often compares the cost-per-incident against other peer agencies. In Figure 87, SKFR appears to have the lowest cost per incident, and CKFR falls in the middle range of agencies. Several factors contribute to this difference. First, earlier comparisons indicate that CKFR has a greater assessed value, collects more revenue, and has a larger operating budget than SKFR. Second, SKFR responded to nearly 1,300 more incidents than CKFR did, which tends to reduce the cost per incident.

Figure 87: – CKFR and SKFR Cost Per Incident, Puget Sound Comparables (2006)



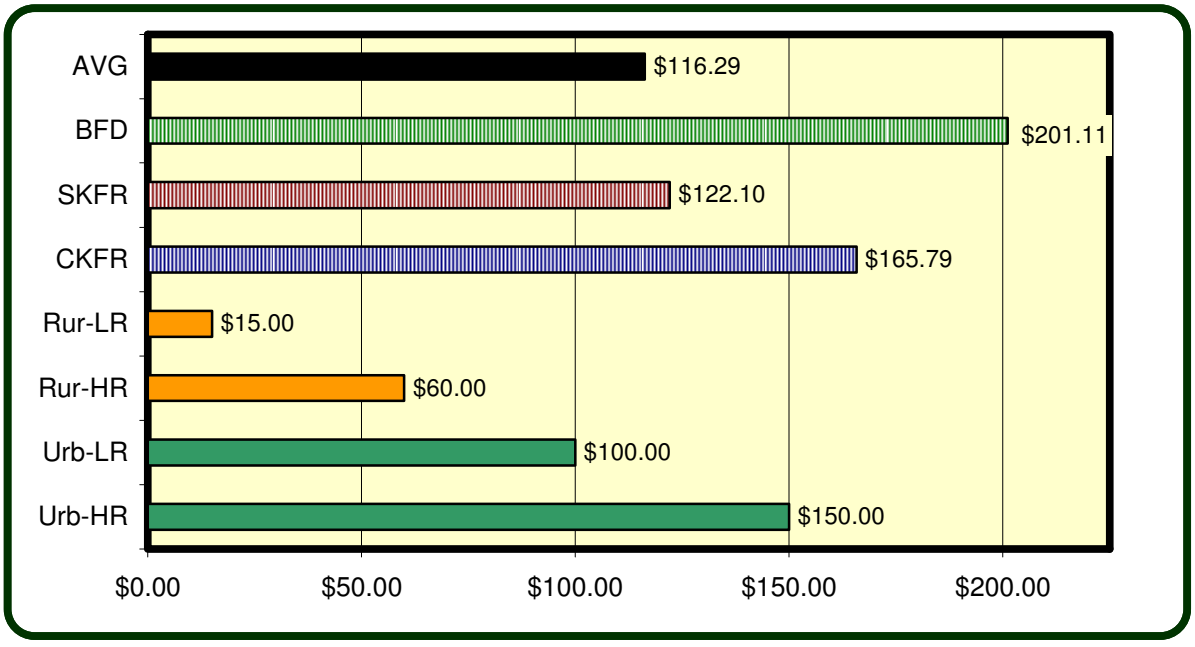
In a similar exercise, ESCi compared the same cost index to the Bremerton Fire Department to find that it is considerably lower than its peer fire departments (Figure 88). Again, the same two factors apply here as with South Kitsap Fire & Rescue – lower financial factors and considerably busier call volumes.

Figure 88: – Bremerton Fire Department Cost per Incident, Puget Sound Comparables (2006)



This financial overview closes with a comparative look at the *cost per capita* of our Kitsap fire agencies with comparable agencies in Western (U.S.) region. In Figure 89, the Kitsap fire departments are considerably higher than the Western region. In the case of the Bremerton Fire Department, the picture is a complete reversal of a local comparison. Only SKFR has a comparative cost that is nearly average to the rural, urban, and Kitsap indexes.

Figure 89: – Cost Per Capita, Kitsap County Agencies Comparables (2006)



Concepts of Strategic Restructuring

Many public agencies have experienced or are experiencing a period of transformation. Rapid economic development in areas surrounding the major population centers of the nation drives a demand for more sophisticated fire protection and EMS services. Many community fire departments that have existed virtually unchanged for decades suddenly find themselves challenged to anticipate and provide urban-style emergency service.

As communities grow to the extent that previously isolated neighborhoods blend, economies and emergency service demands become interdependent. A small city relies on the suburban resident to support the city's economy, while suburban residents depend on the city for jobs and commerce. The loss of a business to fire or disaster in one community now directly affects the quality of life in another.

A long-standing premise of public policy holds that cities are the most logical service providers in urban settings; however, most logical may not mean the most efficient. As it turns out, the emergency service needs of rapidly developing cities and the surrounding unincorporated areas are most effectively met by larger, regionally based fire protection/EMS agencies. This is because the successful outcome of emergency service is highly dependent on the rapid mobilization of significant numbers of personnel and equipment. Regional fire protection agencies and operations inherently have the ability to field greater numbers of emergency workers and equipment while capitalizing on efficiencies of scale in management and oversight.

Today, fire departments are sophisticated and indispensable channels for all forms of emergency service, including natural and man-caused disaster management, fire and accident prevention, first response Homeland Security, and pre-hospital care. In the process, the role of many fire agencies has transformed to regional emergency service providers. At the same time, numerous states have experienced a public service funding crisis brought on by tax limitation laws or other policy shifts that squeeze the ability of communities to unilaterally finance and manage needed change. However, even communities not directly experiencing a funding crisis are pressured by residents and others to lower cost and increase service.

Additionally, as demands for traditional emergency services grow steadily, additional pressure, legislation, and public expectation have increased with regard to providing additional services such as public education and to adequately training and equipping resources for special operations such as

hazardous materials, water rescue, disaster services, high/low angle rescue, vehicular extrication, tactical EMS, Homeland Security, and other specialty services.

Fire departments and fire districts have shouldered the burden of these extra disciplines *without any additional funding or support*. These unfunded mandates have created growing financial challenges and forced agencies, areas, and regions to provide these services cooperatively with other agencies in joint special operations configurations.

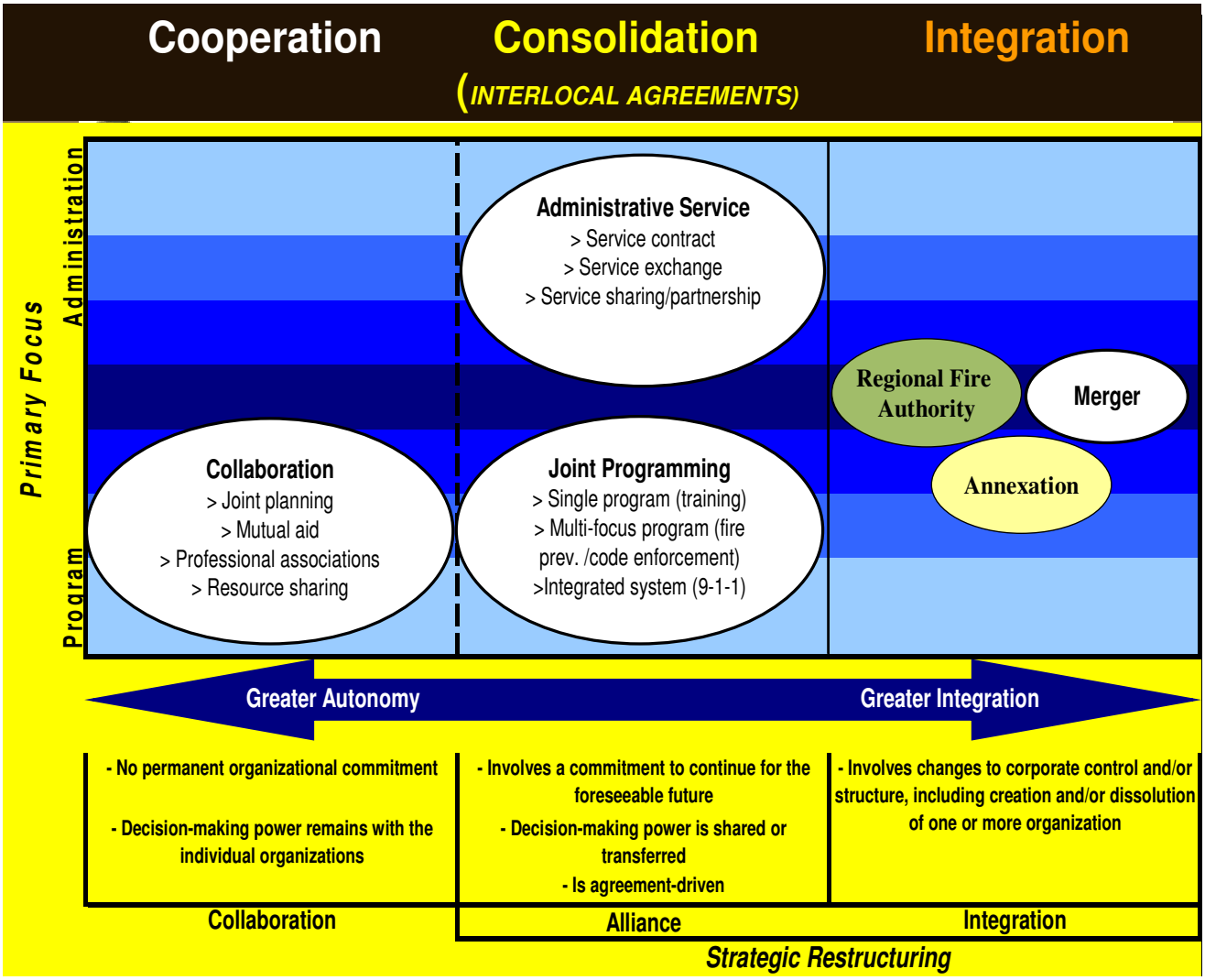
The movement toward more intergovernmental cooperation in the delivery of emergency service goes by many names, including shared services, cooperative efforts, unification, regionalization, consolidation, and/or merger. Formerly, literature and studies concerning such matters in local government have been nearly non-existent and common terminology has not materialized. A recent work, however, concerning the integration of nonprofit agencies (including public protection, public safety, and disaster preparedness) offers some standard terminology and yields insight to driving forces and pitfalls.[26]

Kohm, Piana, and Gowdy term the establishment of an ongoing relationship between two or more independent organizations as *strategic restructuring*. The relationship is generally created to increase the administrative efficiency and/or further the programmatic mission of one or more of the participating agencies through shared, transferred, or combined services, resources, or programs. Strategic restructuring may be thought of as a continuum that ranges from jointly managed programs (such as mutual aid agreements) to complete organizational mergers. The typology includes two primary modes of strategic restructuring (alliance and integration), each with two general subtypes. The authors of the study provide a visual representation of the continuum as a Partnership Matrix, which has been adapted here for application to fire and emergency medical service.[27]

As shown below in Figure 90, the authors of the study carefully divided the level of cooperating into three groups based upon the maturity of the relationship, the depth and breadth of cooperation and the desired outcome of the cooperative effort between participating agencies. Of particular note is the relativity between the level of cooperation and the *autonomy* of the participating agencies.

[26] Amelia Kohm, David La Piana, and Heather Gowdy, "Strategic Restructuring, Findings from a Study of Integrations and Alliances Among Nonprofit Social Service and Cultural Organizations in the United States," Chapin Hall, June 2000.
[27] La Piana Associates Inc, *The Partnership Matrix*, Strategic Solutions for Nonprofit Organizations, 1999.

Figure 90: – Partnership Matrix



Cooperation

Although it is included as an element of the matrix, *cooperation* (collaboration) is *not* considered a form of strategic restructuring. When two or more agencies enter a collaborative relationship, no permanent organizational commitment is made and all decision-making power remains with individual organizations. Interagency collaboration may include participation of fire departments in such activities such as local fire management associations, mutual aid agreements, and interagency disaster planning exercises. As a rule, most modern fire agencies consistently operate in a very collaborative mode, having learned long ago the value of the practice. Many times, close collaboration between two or more organizations eventually leads to alliance and integration.

Consolidation

Washington State law declares intergovernmental cooperation as a matter of statewide concern and grants cities and special districts broad power to contract with other governmental entities for any *function* or *activity* the agencies have authority to perform. A brief review of RCWs confirms that the state of Washington grants cities, counties, and fire districts the power to cooperatively contract for a broad range of purposes relating to the control or prevention of fire.[28] Frequently, such contracts are referred to as intergovernmental or inter-local agreements (IGAs). IGAs permit individual organizations to share resources, improve service, and save money at the program level. Generally, IGAs lead from *cooperative efforts* to some form or level of *consolidation*. Depending on the level and the depth of a consolidation, this involves organizational restructuring that includes a formal commitment to continue shared or transferred decision-making power under the terms of some type of formal agreement or contract. However, it does not involve any change to the corporate, franchise, or governing structure of the participating organizations. The *consolidation* category includes two general subtypes applicable to fire protection—joint programming and administrative service agreements.

Joint Programming

In many cases, joint programming is enough to achieve the cooperative goals of the agencies without considering IGAs or organizational integration. The keys to the success of a joint programming strategy lie in a trusting relationship between partner agencies, the completeness of the agreement that sets up the program, moderately 'like' agencies, and a cooperative approach to the management of the program. Most commonly, fire departments and fire districts enter partnering agreements for programs such as dispatching, firefighter training, fire prevention, public education, closest force response, administrative/support services, purchasing, apparatus maintenance, and command officer programs. Such programs carry the advantage of being low-cost and low-risk improvement strategies. Often, these programs serve as a foundation on which agencies build the experience and trust necessary to implement other programs or strategies.

Administrative Service Alliance

A functional consolidation or an *administrative service alliance* includes sharing, exchanging, or contracting of administrative service to increase managerial efficiency of one or more of the organizations.[29] This strategy joins two or more fire departments or fire department functions through an IGA. The resulting fire department may feature a single operational structure and chain of command, or (depending on the IGA) it may result in one administrative structure charged with the management and

[28] RCW 39.34 The Interlocal Cooperation Act.

[29] Amelia Kohm, David La Piana, and Heather Gowdy, "Strategic Restructuring, Findings from a Study of Integrations and Alliances Among Nonprofit Social Service and Cultural Organizations in the United States," Chapin Hall, June 2000, page 11.

oversight of more than one agency. Depending on the form of the agreement(s) establishing the organization, employees may remain with the original employer, transfer to one of the other employers, or transfer to an entirely new entity.

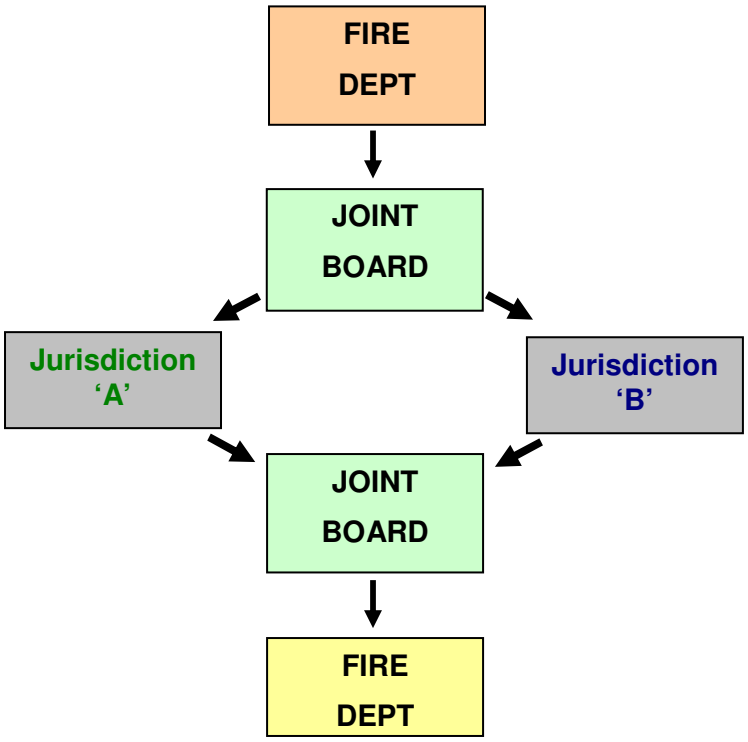
The unique feature of an administrative service alliance is that existing governing bodies are preserved. The management team of the allied fire department reports to each political body, usually through a joint oversight board established expressly for the purpose. The political entities prepare and adopt separate budgets and retain responsibility for overall policy and taxation.

The unified fire department is funded through the apportionment of cost in accordance with a predetermined formula. Alliances are frequently considered an intermediate step leading to full integration. An advantage of this strategy is that it allows governing boards the ability to negotiate and monitor outcomes for the management of a particular service. This certainty may provide a higher level of comfort in making the decision to unify fire service across a geographical region.

One disadvantage of an administrative service alliance is a perceived complexity of the arrangement. An administrative team that must answer to two or more political bodies may have difficulty reacting to change due to contractual requirements.

A joint oversight board chosen to oversee the new entity would be advisory only and not have authority to commit the respective jurisdictions to any legal or financial obligations without a vote of the full respective elected boards. This allows another layer of local government in which financial or policy decisions may take extended periods of time to reach a final decision. Figure 91 reflects the potential struggles of a multi-layered approach to joint governing operations. Success in these relationships depends a great deal on the founding political relationship and the skills of management. Many IGAs, in effect throughout the nation, are successful in centralizing the administrative service functions and delivering increased efficiencies.

Figure 91: – Joint Board Matrix



Integration

Integration includes organizational changes at the governance levels. The strategy may consist of the creation and/or dissolution of one or more organizations and is generally the result of the maturation of a long-standing cooperative effort between the integrating agencies.

Under certain circumstances in law, multiple fire departments or fire districts may integrate to form a single entity. Integration merges not only programs and organizations, but also the units of government. State law details how political subdivisions may process integrations in Washington.[30] Fire departments that exist as independent governmental entities (fire districts) may merge, consolidate, or annex other independent units (fire districts) in accordance with a process set forth in Title 52 RCW. Washington State law does not, however, include a process for the full integration of the individual service elements of city governments (such as municipal fire departments) into other municipal fire departments or into fire districts.

[30] Chapter 52.06 RCW.

Because integration of fire protection service involves a change in governance of one or more entities, the process is specifically addressed by statute. Single purpose governmental units (fire districts) typically have the power to merge and consolidate with other service providers much more easily. Cities may annex into neighboring fire districts to take advantage of economies of scale and to more effectively plan for an orderly expansion of a city within its urban growth boundary.

There are two legal processes available for cities and fire districts to integrate. The first is by the fire district annexing the cooperative city into the boundaries of the fire district as defined in RCW 52.06.090. The only integration option available to cities that have no joint boundary with an existing fire district is to form a new fire protection entity (fire district) that encompasses all of the desired territory. The second option is new to the state of Washington and comes in the form of a Regional Fire Authority.

Mergers/Annexations

Many states differentiate between the words "consolidation," and "merger," giving special legal meaning and process to each. ESCi tends to use the term *merger* in referring to a type of integration defined by law that joins existing units of government or that dissolves existing units of governments and creates a new regional service provider in their place.

Washington State law gives contiguous fire districts the power to *merge*. The statute applies only to fire districts, though other provisions of the law do address contracting between cities and fire districts.[31] For the purpose of this report, however, a service contract between a city and a district is considered an *alliance* and not *integration*.[32] Governance for said alliance is usually provided by a joint advisory board.

Some states provide for a city to annex *into* a neighboring fire district. This process is very different from a city annexing the territory *of* a fire district. If a city annexes into a fire district, the fire district extends its service and jurisdiction to the area within the municipal boundaries; taxes for services within municipal boundaries (through a property tax); and governs itself (through an election process provided by statute). There are dozens of examples of cities which have annexed into a surrounding fire district in the state of Washington. In doing so, a municipality no longer has direct input or influence into the level of service its constituents will receive from the fire district. This is decided by the Board of Fire Commissioners of the district which annexed the city.

[31] RCW 39.34.
[32] Ibid, 321.221 and 321.223.

In administrative alliances or functional consolidations that occur between cities and fire districts, where a joint board provides oversight to the operation, the city sits at the table with the fire commissioners and provides representation and influence on fire protection policies via a joint board. However, the city voter is not allowed to vote on fire district issues.

If a city is annexed into a fire district, the city council no longer has a place on the governing board but the constituents are now a part of the fire district and may vote on fire protection and EMS issues, fire commissioner elections, and/or may even run for a fire commissioner position. RCW 52.04.061 provides a roadmap for such action should both a city and a contiguous fire district cooperatively approach the subject with their voters.

Fire Authority

Some states provide a process for the creation of regional fire protection units called *fire authorities*.[33] The process allows existing governmental jurisdictions (cities, counties, fire districts) to create and govern a new entity (the fire authority). Each jurisdiction essentially transfers all or a portion of its respective fire department and emergency medical service into the fire authority and each provides representative officials to serve as the authority's governing board.

The laws of California and Colorado include such provisions. The Orange County Fire Authority (California) supplies fire suppression/prevention and emergency services to 22 cities plus the unincorporated area of Orange County. The fire authority serves an area of more than 551 square miles, including a residential population of 1,333,386. The Poudre Fire Authority (Colorado) was created by the integration of the city of Fort Collins and the Poudre Valley Fire Protection District. The agency serves 235 square miles and a population of 156,608 residents.[34] Locally, ESCi facilitated Washington State's first Regional Fire Protection Services Authority (RFPSA) for the cities of Algona, Auburn, and Pacific.

In all cases, officials of the member governments oversee the management of the fire authority. The mayors of the cities and a representative of the unincorporated county provide Orange County Fire Authority governance. The Fort Collins mayor, city manager, and one city council member serve on the Poudre Fire Authority Board of Fire Commissioners, in addition to two representatives of the Poudre Valley Fire Protection District. The same basic governance model was chosen for the Valley Regional Fire Authority in King County as well.

[33] Washington State enacted its own version of fire authority legislation in 2003.

[34] Additional information on the Orange County Fire Authority and the Poudre Fire Authority is available at http://www.ofa.org and http://www.poudre-fire.org.

The state of Washington originally passed fire authority legislation in 2002 for which state fire chiefs, state fire commissioners, and the state labor council strongly supported and lobbied.[35] While this important piece of legislation was successfully passed, the Association of Washington Cities and the Association of Washington Counties opposed the original legislation and forced the legislature to pass a lesser version of SSB-5326, which gutted the fire authority bill of its financial mechanism.

Fire officials came back in 2006 and, with the full cooperation of other fire agencies in Washington, successfully revised the Fire Authority legislation. Washington lawmakers passed the new version in 2006. As discussed earlier, three cities in southern King County successfully formed the first regional fire authority in Washington. Effective January 1, 2007, the Valley Regional Fire Authority began doing business with the combined resources of the two city fire departments. Governance for Regional Fire Protection Services Authorities in Washington is provided by representatives of each participating agency as determined by the adopted Regional Fire Authority Plan.

Motivating Factors

When organizations are asked to list reasons for undertaking strategic restructuring, respondents often cite internal decisions to increase the effectiveness and/or efficiency of their organization.[36] Notwithstanding the tax limitation issues facing many communities, other agencies undertake strategic restructuring to *improve the quality and/or range of service.* Least mentioned reasons for restructuring are funding issues; not surprisingly, when funding is judged as a motivator, those involved in the development of an intergovernmental alliance are less likely to mention it than those organizations undertaking complete integration.[37]

An *alliance* may be perceived as less threatening than *integration* to an organization's autonomy and culture. However, the recognition of imminent financial problems can cause some to take greater organizational risk.

Organizations tend to consider the options of alliance and integration when the agencies experience certain events. Often a sudden interruption of the status quo may occur (such as the loss of a CEO, a financial crisis, or a rapid change of the community or service demand) that compels significant change.

[35] Regional Fire Protection Services Authority – RCW 52.26 (SSB 5326).
[36] Amelia Kohm, David La Piana, and Heather Gowdy, "Strategic Restructuring, Findings from a Study of Integrations and Alliances Among Nonprofit Social Service and Cultural Organizations in the United States," Chapin Hall, June 2000, page 15.
[37] Ibid.

Other times, forward-thinking individuals of the policy body or administration may champion the idea. These leaders work against their own self-interest, especially in promoting integration. Last, the political or operational climate in which the agency operates may change in a way that forces the agency to change the way it does business. In the case of Kitsap County, fire agencies have gradually but purposefully moved in the direction of integration due to the strong leadership and vision of the decades of Kitsap County fire commissioners and fire chiefs.

Success Factors

The success of a strategic restructuring depends on many things. ESCi's experience with dozens of alliances and integrations finds that *leadership* is the single factor that most frequently determines success. A key staff or board member champions the concept garnering the support of the various affected groups (political, labor, member, and community). Good leadership fosters an organizational culture receptive to planning, calculated risk taking, and flexibility. The manner in which leaders promote a trusting relationship between all groups and aid two-way communication between them is essential. The research by Kohm, Piana, and Gowdy identified five factors that most often seem to contribute to the successful implementation of an alliance or integration.[38] The five factors are:

1. Leadership that believes strongly in the partnership and demonstrates this belief, often by acting selflessly to maintain it.

2. Multiple forms of communication to keep all persons (board, staff, members, and community) informed about plans, problems, and benefits concerning the partnership.

3. Face-to-face communications with partner organizations in the form of meetings, training, and other forums to build trust and understanding among staff.

4. Flexibility through an expectation that even in the best-planned partnership, unforeseen issues will arise, mistakes will be made, and alternative paths will be identified.

5. Early evidence of benefit to assure everyone that they are on the right track, such as better or less expensive employee benefits or improved facilities.

Restructuring Pitfalls

Organizational alliances and integrations also *fail*. Sometimes law prohibits the idea at the outset. Other times the proposal may be doomed by the unfavorable outcome of a public election or the reality of finance. Four major pitfalls can cause even the most feasible alliance or integration to go wrong. Many think of these pitfalls as the "Four Horsemen" of failed partnerships. Specifically, the four are *command, communication, control*, and *culture*.

[38] Ibid, page 22.

Command

Undertaking any form of partnership requires effective leadership be demonstrated consistently at all levels. Policymakers and administrators must guide their respective agencies; yet, at the same time, they must cooperate with partner organizations. Differing leadership styles may cause repressed friction at best and open conflict at worst. Problems with sharing control and making decisions sends the wrong message to the members of the organization, which can lead to an unraveling of even the best proposal.

Communication

Silence or limited information from leaders to everyone involved *throughout the process* about potential or upcoming partnerships breeds fear, mistrust, and misinformation among affected persons. The leadership of collaborating organizations must agree to communicate actively, consistently, openly, and often with all affected groups. Everyone must be provided the same information at the same time. Most importantly, leaders must demonstrate two-way communication skills by carefully listening to (and acting on) the concerns of all constituents.

Control

Frequently, the strategic restructuring process is compared to a marriage. As the saying goes, "*Marriage is when two people become as one; the trouble starts when they try to decide which one*."[39] As in marriage, strategic restructuring often fails because of organizational or personal ego issues.

The tenets of leadership require that someone be in charge; but in the interest of greater good, some of those in leadership positions must agree to yield power. Some who are used to operating in a position of control may have trouble adjusting to new roles that require more collaboration. Personal sacrifice in the interest of community good may not always win out.

Culture

Two schools of thought exist regarding organizational culture. The first camp views culture as implicit in social life, naturally emerging as individuals transform themselves into social groups (tribes, organizations, communities, and nations). The second camp offers that culture is comprised of distinct observable forms (language, use of symbols, customs, methods of problem solving, and design of work settings) that people create and use to confront the broader social environment. This second view is most widely used in the evaluation and management of organizational culture, but the first is no less important when considering bringing two discrete organizations into a closer relationship.

[39] Source unknown.

The general characteristics of a fire department encourage the creation of a culture unique to that organization. The paramilitary structure, the reliance on teamwork, and the hazards of the work builds strong bonds between the members who tend to share group behaviors, assumptions, beliefs, and values. Bringing two such groups together with cultures formed through different experiences always results in a change to both organizational cultures. If the partnership is successful, no *one* culture will overcome the other; instead, a new culture will evolve from the two. If the organizational cultures are incompatible, the partnership will fail quickly.

Leaders must be aware of organizational culture and its role in the wellness of the agency's soul. Early recognition by leadership of the importance of culture to the success of a partnership can help to overcome differences and build on strengths.

Partnership Options Available to Kitsap Agencies

The Bremerton Fire Department, Central Kitsap Fire & Rescue, and South Kitsap Fire & Rescue may choose to restructure either through *alliance (consolidation of services)* for a short-term strategy and/or through *integration* for the long-term solution. Specifically, all three agencies may form an alliance by uniting one or more organizational programs; or, as a first step, the agencies can enter into an administrative service alliance. If complete integration is chosen as a short- or middle-term strategy, the fire districts may execute a complete integration (merger).[40]

While this report is limited to two fire districts and a city, other regional players do exist. Geography, the transportation system, jobs, and other demographics connect the Kitsap County agencies. Other fire and EMS agencies in the region have expressed interest in this study. The options presented are intended to assist policymakers in making a decision; however, no decision should necessarily be limited to any one concept or option presented here. Many of the ideas may be expanded to include other fire organizations if greater efficiency or economics can be achieved. ESCi has already been in contact with and made formal presentations to neighboring Kitsap County fire districts that are watching this project and have expressed interest in being a part of a greater alliance.

The following partnership options are now discussed as **opportunities** for the three Kitsap County fire agencies. These are considered short- and middle-range strategies that provide intermediate steps towards eventual regionalization and integration.

[40] In accordance with the provisions of RCW 52.06 or elect to form a Regional Fire Authority (RCW 52.26).

Joint Programming Alliances

While the participating agencies desire this report to focus on the feasibility of an administrative alliance or a complete integration, ESCi includes a list of joint programming options here to assure completeness. Options available include the continued unified development and delivery of existing administrative, support, and operational programs of the Kitsap County fire departments. A list of common types of collaborative programs with a short explanation of each is found in Figure 92 below.

Figure 92: – Joint Programming Matrix

JOINT PROGRAMMING CONCEPTS	
Program	**Strategy**
Standards of Coverage Policy	Adopting and implementing a unified regional Standards of Coverage policy ensuring that all responses are provided adequate resources.
Closest Force Response	Seamless response by the closest and appropriate emergency equipment regardless of jurisdiction; provides quickest aid to community.
Regional Deployment Planning and Integration	The establishment of a true deployment standard or plan quickly realizes that no one agency can fulfill its deployment requirements without its neighbors. A deployment standard, conducted on a regional basis, reflects a true response standard for all local resources.
Consolidate Training Program	Regional training program for career and volunteer personnel consolidated into one entity. Provides consistent training standards across the area; joint training and standardized fire operations, which complements joint deployment standard and standards of coverage policy.
Regional EMS Services	Provides greater management, deployment, and use of existing resources. Increases efficiency of the EMS system.
Universal Operating Standards	Universal operational standards developed and adopted across the region. This is necessary if a true regional deployment standard is adopted and shared command is incorporated.
Special Operations	Combined management of resources, training, and response for hazardous materials, water rescue, tactical EMS, confined space, and rope rescue between all participating agencies.
Fire Prevention, Public Education	Regional fire prevention program pooling all existing fire prevention resources. Provides consistent effort and message across wider area.
Specifications & Apparatus Acquisition	Assures apparatus and equipment compatibility between the partner agencies. Streamlines training efforts. Increases fireground efficiency. Reduces purchasing cost.
Joint/Shared Fire Stations and Staffing	Fire station locations founded on response efficiency. Spreads the cost of capital construction across a greater base. Provides a more efficient emergency response system.
Administrative and Accounting Services	Financial affairs managed from one accounting office. Services include accounts receivable/payable, payroll, bookkeeping, monthly/annual financial reports, and tax information.

Each of the listed program concepts represents a viable consolidation/management option. ESCi views these concepts as being relatively simple to develop and execute. Kitsap County fire agencies have adopted several of these concepts and are cooperating effectively.

Costs associated with implementation of any concept should not exceed the combined budgetary allocation for the corresponding programs of the participating fire departments (if they currently exist). A timeline for implementation of any of the joint programming concepts can be expressed in weeks or months.

ESCi has accomplished a great deal of study and expertise in this area. There are examples of *joint programming concepts* that can be considered on a short and middle term basis. Below are examples of cooperative opportunities that can be considered for Kitsap County fire agencies.

Partnering Strategy A: Regional Deployment Standards

Level of Cooperation: Functional

Timeline for Completion: Short term

Section: Operations divisions

Affected Stakeholders: All agencies

Objective: Develop standard, regional *deployment standards* that establish the distribution and concentration of emergency resources, both fixed and mobile for the entire Kitsap project area**.**

Summary: SKFR and CKFR have adopted individual standards of coverage. Developing *regional* standards for response coverage will formally define the distribution and concentration of the fixed and mobile assets of an emergency organization or, in this case, a *cooperative area*. The process of standards development includes reviewing community expectations, setting response goals, and establishing a system of measuring performance. The resulting plan includes all aspects of the community and organization that are required to create response standards and to determine the ideal use of resources.

Discussion: The information contained in this partnership opportunity is extracted from *Creating & Evaluating Standards of Response Cover for Fire Departments*.[41] The following excerpt is from the Introduction and Chapter 1 of this publication.

> *The material was originally designed as an assignment to the accreditation task force of the International Association of Fire Chiefs (IAFC). When the task force was turned into a commission, the Commission on Fire Accreditation International, Inc. (eventually renamed the Center for Public Safety Excellence) it was included in the accreditation manual Fire and Emergency Service Self-Assessment Manual. All agencies have an existing policy (for deploying resources), even if it is undocumented or adopted by the locally responsible elected officials. Originally, stations and equipment were situated to achieve certain expectations. How and why they were sited needs to be historically understood, described, and contrasted to proposed changes. There are usually three reasons to redo or challenge existing levels of service – expansion, contraction of service areas and change in risk expectations. Contraction is typically the result of a reduction in service area, a decline in risk or value, or a decline in available fire protection funding. Regardless of the reasons, elected officials should base changes in levels of service on empirical evidence and rational discussion leading to effective, informed policy choices. The purpose of the standards of response coverage process is to*

[41] *Creating & Evaluating Standards of Response Cover for Fire Departments*, Fourth edition, Introduction, Commission on Fire Accreditation International, Inc, 2003, Chantilly, VA.

prepare fire service leaders to conduct just such an analysis and then lead an informed policy discussion.

The deployment systems approach consists of the following eight components:

1. Existing deployment
2. Risk identification
3. Risk expectations
4. Service level objectives
5. Distribution
6. Concentration
7. Performance and reliability
8. Overall evaluation

Critical Issues:

- Exercise caution when developing a larger Kitsap County deployment standard. Even micro-changes when setting service level objectives can have broad impact.
- Take the time, effort, and resources to provide 'benchmarking' of current resources and resource performance (as individual agencies) in order to be able to quantify changes and development of a regional deployment standard.

Guidance:

- When developing a deployment standard, reference *Creating & Evaluating Standards of Response Cover for Fire Departments*.[42]
- Review any existing Washington State standard of cover documents, deployment standards, and response time standards. Review the requirements of RCW 52.33 requiring standards of coverage for 'substantially career' fire departments in the state of Washington.
- The Washington Fire Chiefs Association website has the entire SHB 1756 Implementation Guide. Use the experience of others who have already developed a standard of cover.[43]
- Prior to developing or modifying deployment standards, elected officials, administration, and staff should be educated on and have a clear understanding of the process.
- Kitsap County fire agencies should develop standards of cover collectively and have agreements in place to specify deployment plans.
- When evaluating capabilities and setting performance standards for a community or fire district, size and population density often place direct demand upon the fire department with respect to

[42] Ibid.
[43] www.wsafc.org.

community expectations. Different expectations are often found in urban, suburban, rural, and frontier communities.

- Developing a standard of cover is a loop process. For example, if after establishing risk category expectations the resultant response plan is found to be too expensive, the facilitator of the process might re-challenge the community's elected leaders to lower service expectations or to find additional funding.

Fiscal Considerations:

- Redeployment of resources.
- Increase in emergency response workload.
- New facilities or modifications to existing facilities.
- New apparatus.
- Additional personnel.
- Marginal cost of staff time to develop a standard of cover.

Partnering Strategy B: Joint Staffing of Stations and Apparatus

Level of Cooperation: Functional

Timeline for Completion: Short to middle term

Section: Emergency Operations

Affected Stakeholders: All agencies

Objectives:

- Provide for distribution of facilities and deployment of personnel consistent with a Kitsap County Deployment Plan.
- Provide consistent fire and emergency services within Sphere of Influence (SOI) areas efficiently before, during, and after development.

Summary: Practicality and external influences seldom allow fire station placement to match perfectly with a fire department's deployment strategy. Reasons for this include the availability of property, land use laws, roadway infrastructure, construction cost, traffic patterns, geography, and projected station workload. Given that the area protected by a fire department may change through annexation, merger, and contracted protection, a perfect station location today may be a poor location in the future. Additional considerations are made with regard to satisfaction of ISO requirements in place through the Washington Survey and Rating Bureau.

It is virtually impossible to place fire stations in an ideal location and not overlap the response zones of the existing fire stations or departments. Figure 93 displays a response profile with the current configuration of the 31 existing fire stations. The stations denoted with blue graphics are volunteer fire stations; those denoted in red are staffed 24/7 with career personnel.

As illustrated, there is significant overlap of coverage with all current fire stations remaining active. ESCI, using geo-coded data from the Kitsap County GIS information and current data provided by the project agencies, has analyzed the overlap of the 31 fire stations (Figure 94). A majority of the populated areas of Bremerton Fire, CKFR, and SKFR almost total overlap. This model DOES NOT include responses from the volunteer fire stations when applying the eight-minute paradigm. (Additional charts are provided in the appendix of this report.)

Figure 93: – Current Kitsap/Bremerton Deployment

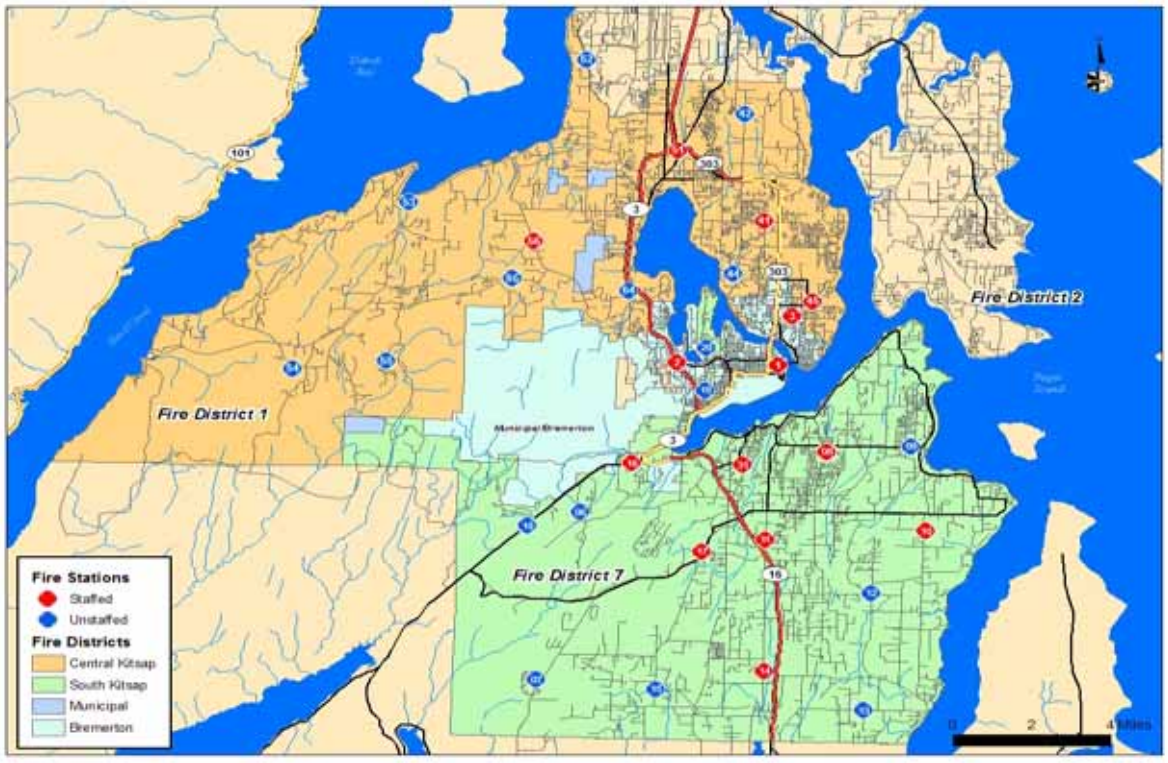
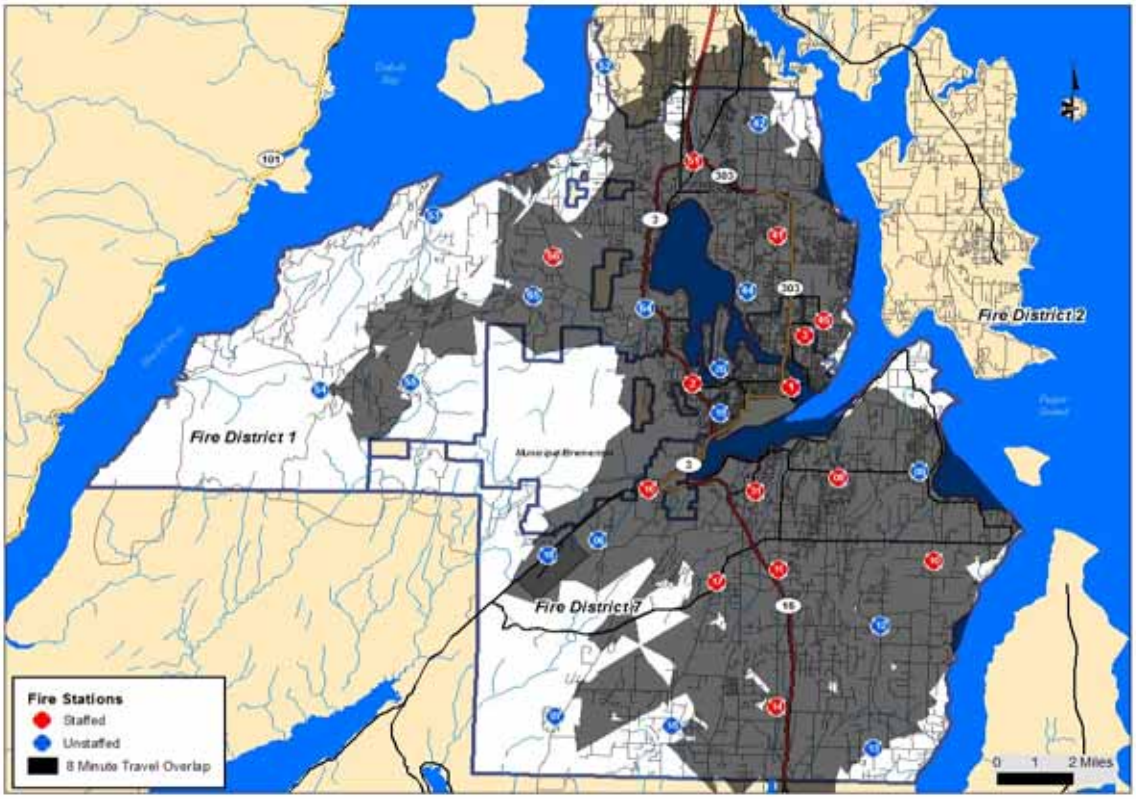


Figure 94: – Eight-minute Response Overlap, Kitsap County Agencies

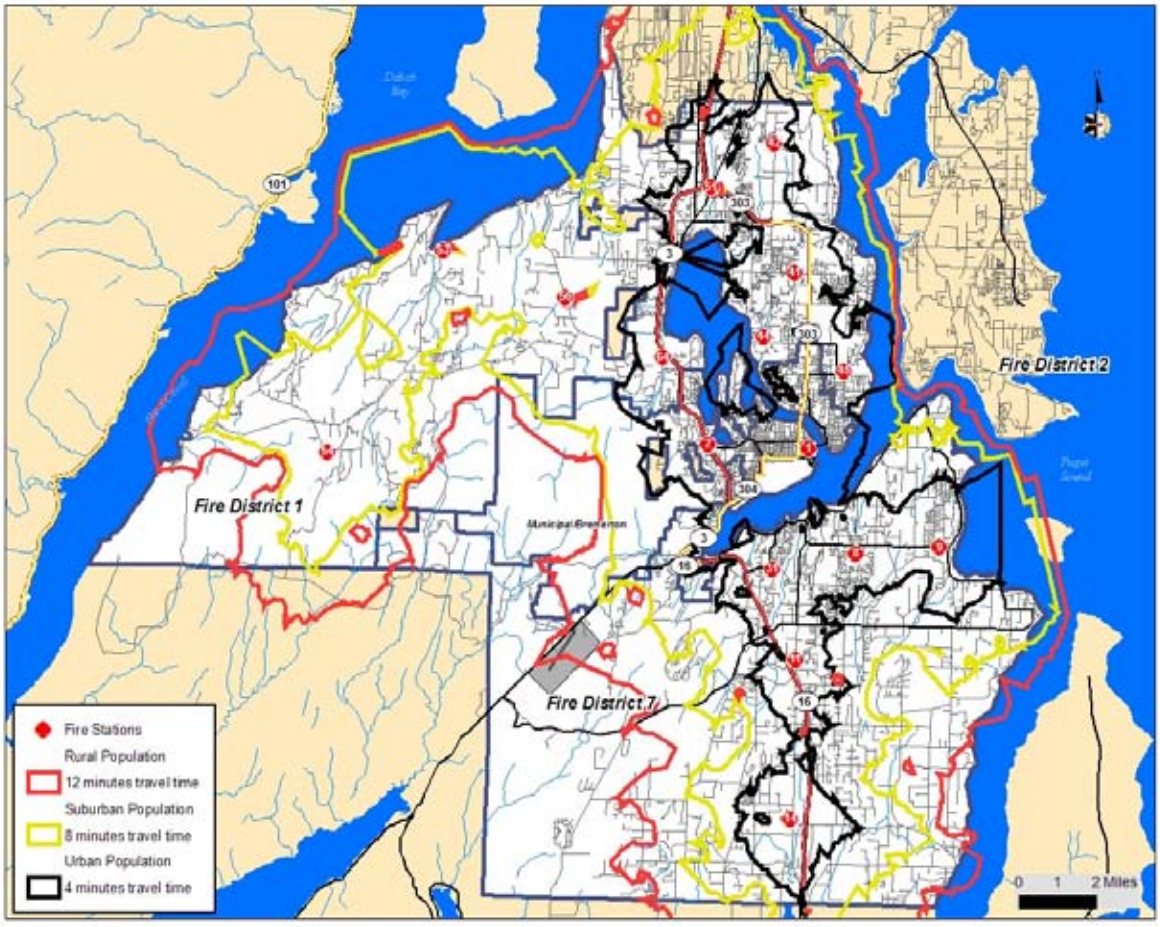


There is a duplication that, on a short term basis, may be redirected to provide better coverage or better concentration of forces in those areas with notable unit or station reliability rates. It is clear that there may be a more efficient means of delivering emergency services by re-deploying existing resources based on workloads and a regional deployment standard.

Jointly staffed stations and/or response units create more alternatives for fire departments studying the deployment of emergency resources. Fire departments often know how many firefighters are needed for the best possible protection; however, departments are infrequently able to afford to staff at such levels. Sharing personnel from different agencies can help to bring staffing levels closer to the optimum.

Another consideration is for the Kitsap County fire agencies to create a single training division, a single set of training standards and performance criteria for both career and volunteer personnel, and a provision for response area coverage while emergency units travel to a training center. Jointly staffing a PAU (Peak Activity Unit) with multi-agency personnel could protect vacant response zones during those times. Jointly staffing fire apparatus can also be a very practical option for providing resources from a fire station located in an area able to serve more than one jurisdiction. Cooperatively providing specialty apparatus used for infrequent (but often high-risk) emergencies is an effective means to distribute the cost of such apparatus over a wider financing base. Figure 95 provides a deployment option for fire stations.

Figure 95: – Theoretical Kitsap County Deployment



Discussion: Kitsap County fire departments rely on each other for resources during routine and non-routine emergencies. Without question, if facilities are distributed and personnel deployed regardless of jurisdictional boundaries (and consistent with a Kitsap County deployment plan and standards of coverage), the likelihood of those resources being located where they are most needed increases.

Examples of innovative cooperative agreements between jurisdictions that maximize the value of emergency resources include the cities of Portland and Gresham, Oregon. The cities jointly staff a fire station that is located to respond efficiently to emergencies in both cities. For the first five months of each year, a three-person ALS fire company is housed and supported in the station by the city of Gresham. During the remaining seven months of the year, a Portland Fire and Rescue four-person ALS engine responds from the station. As change occurs in the protected area, the two cities can easily adjust liability by altering the time each operates the station. The agreement assures timely and effective emergency response while a financial balance is maintained that benefits the taxpayers of both cities.

Other examples include:

- The cities of Marysville and Arlington jointly staff aerial ladder apparatus in Snohomish County.

- The city of Yakima and Yakima County Fire District No. 12 (West Valley) jointly staff a fire station with personnel from both agencies.

Methods used to jointly staff stations and apparatus include:

- **Combined personnel from different fire departments staff a station.** For example, one fire department supplies a firefighter for each shift and another fire department contributes an apparatus operator/engineer and an officer. The workforce is made up each day of personnel from both fire departments.

- **Personnel from different fire departments staff a station on a set schedule.** For example, one fire department staffs the station on two of three shifts. The other department staffs the station on the third shift.

- **Fire departments apportion responsibility for staffing and support of a station for a given number of months.** For example, one fire department staffs and supports the station for a given number of months each year. During the remaining months, the other fire department provides staff and support.

- **Two fire departments jointly staff a fire station with personnel from both fire departments and operate more than one piece of emergency apparatus.** For example, one fire department staffs a fire engine and the other department staffs a medic unit in the same station.

- **One fire department staffs a fire station but extends first alarm response from that station to another jurisdiction.** The second fire department compensates the first based on an agreed cost/benefit formula.

- **Two fire departments exchange in-kind first alarm response.** For example, one fire department provides first alarm response into another fire department's area in exchange for like service from that agency.

Guidance:

- **Training issues.** The personnel used for joint staffing of stations and apparatus should be trained to provide a service level (including EMS) equal to or greater than that of the cooperating fire departments.

- **Deployment considerations.** Deployment standards for the partnering Kitsap County agencies should be developed and adopted. The fire departments should execute deployment plans between the agencies prior to entering joint staffing agreements.

- **Financial considerations.** Marginal costs of deploying personnel in joint staffing ventures will be determined based on the agency and on personnel costs. Startup costs may include additional training as well as the supplies and equipment needed to support the stations and fire response

units. A portion of the cost for additional training and equipment could be immaterial if, as part of the cooperative initiatives, the north zone fire departments also adopt deployment standards, a single dispatch service, training standards, and a joint purchasing program.

Fiscal Considerations:

- Joint staffing of stations and apparatus is foreseen only as an interim step towards a unified Kitsap County.

- Joint staffing provides fire departments with a way to meet deployment standards when:
    - It is not economically feasible for a fire department to staff a station or fire apparatus independently.
    - Fire departments have common borders and underserved territories.

- Joint staffing provides the political entities with an emergency service exit strategy where future annexation may remove or transfer territorial responsibility.

Partnering Strategy C: Regional Guidelines for Fire and EMS Response

Level of Cooperation: Functional

Timeline for Completion: Short to middle term

Section: EMS and Emergency Operations

Affected Stakeholders: All agencies

Objectives:

- Define response times so that adequate system planning can take place.
- Establish parameters for maximum response times on a per-call basis.
- Establish parameters for maximum 'turn-around time' for EMS units.
- Develop a system-wide reporting structure to standardize the collection and reporting of response times and incident data.
- Re-distribute resources to maximize regional deployment standard.
- Centralize management and record keeping.

Summary: Dependent on the partnering strategies that are chosen for implementation, the two may be developed simultaneously or independently. Response times and 'out of service' times are one of the most frequently used methods of measuring fire/EMS system performance. Fire agencies and policymakers require a benchmark by which to measure the effectiveness of the system and a method by which to make decisions. Because the economic cost of fire protection is highly sensitive to response times, a small change in response time requirements may cause a significant change in cost. Policymakers must, therefore, carefully consider the balance between the economic cost, fire risk, and the highest savings of life and property at the least cost.

Discussion: In conducting research for the Center for Public Safety Excellence (formally known as the Commission for Fire Accreditation International—CFAI), members of the initial task force spent considerable effort toward examining the factors that make up the time required to be notified of and respond to a fire emergency. A thorough understanding of the relationship of time and the progression of an emergency was fundamental to defining optimum service levels. In the process of this work the

task force noted that many fire departments are collecting data on emergency response, but are not necessarily using that data to measure performance.[44]

A problem occurs when fire departments use different timeframes for collecting and reporting response time statistics. For example, if a department does not include alarm processing or turnout time in its definition of response, the department's response statistics may be unfairly weighted because only travel time to the emergency is measured and reported. On the other hand, a department that does include alarm time and processing time in its collection of data may be compared unfavorably to a department that does not. The following time interval definitions are useful in any examination of response times:

Response interval — the time required for response, measured as the time between when the emergency responder is first notified of an incident by the dispatch agency and when the responder's vehicle comes to a complete stop at the scene (or staging area).

Out-of-chute 'turnout' interval — the time measured between when the emergency responder is first notified of an incident by the dispatch agency and when the responding vehicle begins moving toward the incident.

Travel interval — the time measured between when the emergency responder's vehicle begins moving toward the incident and when that the vehicle comes to a complete stop at the scene (or staging area).

On scene interval — the time an EMS unit is on the scene of the incident.

Transport time — the time it takes for the EMS unit to transport the patient to a medical facility.

EMS turn-around time — the total time an EMS unit is out of service from its first due area for an incident.

The International Association of Fire Chiefs (IAFC) has different recommendations for response times and has established (as shown in the following figures) two Cascades of Events to assist responders in understanding response intervals for emergency operations. Irrespective of the method used, system regulators establish an appropriate response time reporting method for their local communities. While the IAFC method includes dispatch processing time as a component of response time, ESCi has elected to not use that method because responders rarely have control over the dispatch center to the extent that they can influence those times. Regardless, the dispatch processing times should also be monitored and standards for dispatch established.

[44] *Creating & Evaluating Standards of Response Cover for Fire Departments*, Fourth edition, Chapter 2, Page 1, Commission on Fire Accreditation International, Inc, 2003, Chantilly, VA.

Response intervals for emergency services are not necessarily standardized for different demographic regions in the Kitsap County area, although both SKFR and CKFR recently expanded and enhanced their emergency service zones. The agencies should develop a universal method to both capture and report on response times.

Figure 96: – Emergency Fire Operations Cascade of Events

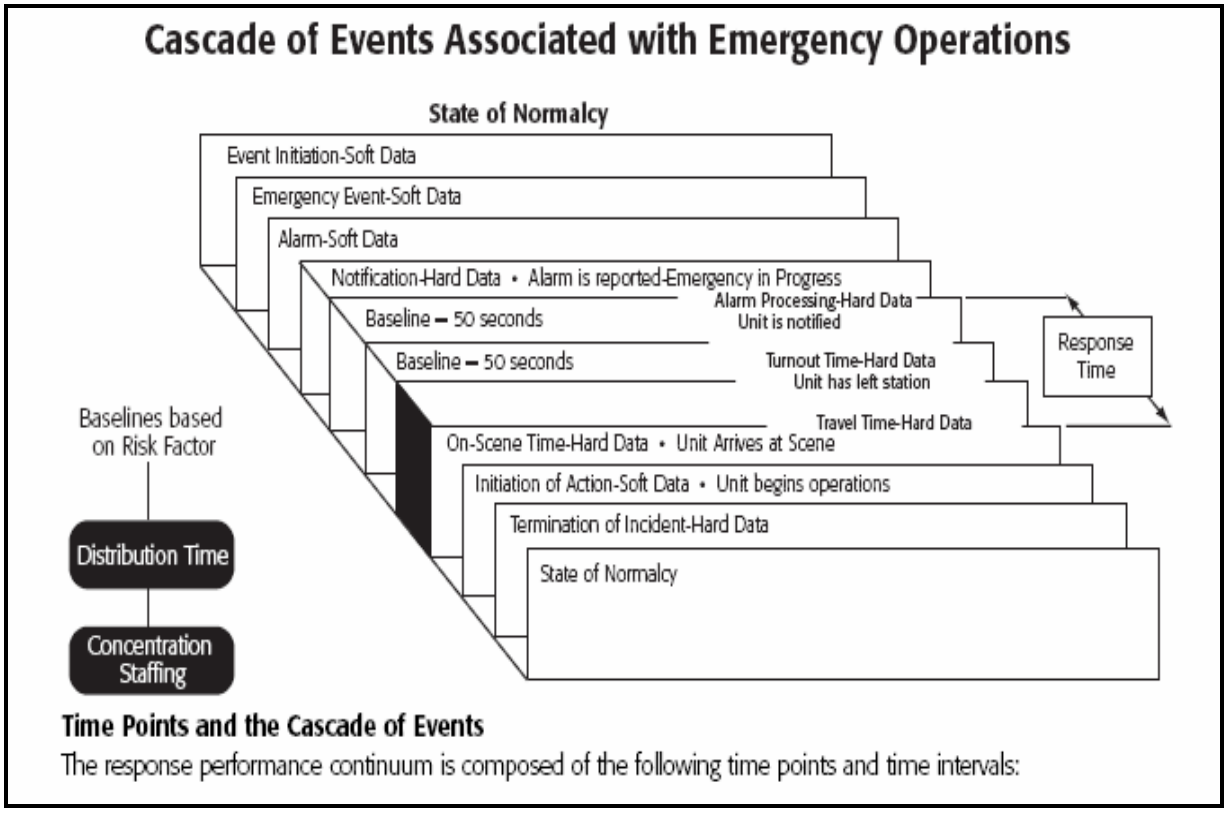
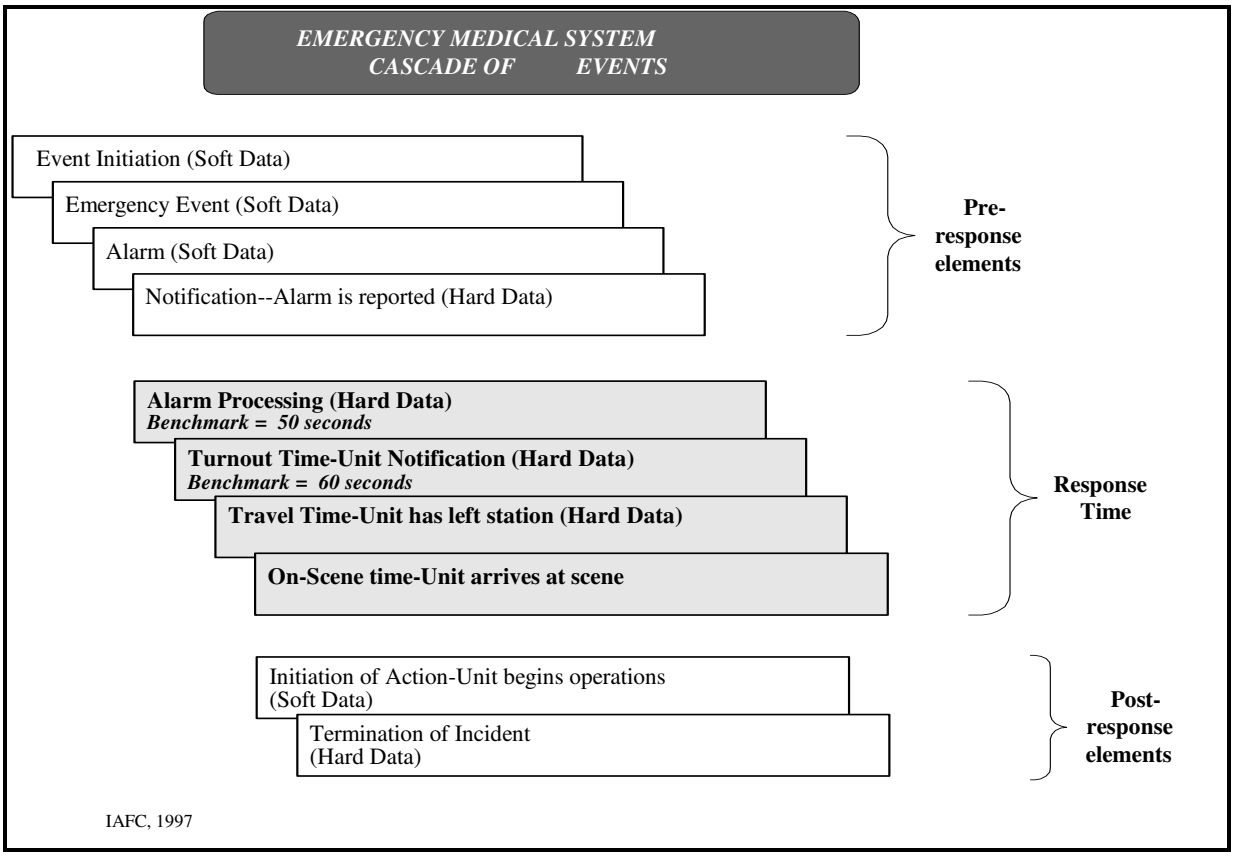


Figure 97: – Emergency Medical Incidents Cascade of Events



Critical Issues:

- **Data issues.** An integrated, inclusive emergency operations and/or advisory committee may define data points that will be used in the system to capture and report on response performance. The fire departments should collaborate with the dispatch agency to ensure that the data points can be captured by the center. The dispatch agency should develop methods to report on the response performance using industry standard fractal reporting methods if it has not developed them already. For Kitsap County fire agencies, response performance reporting is already conducted by CENCOM.

- **Performance considerations.** Fire agency partners should design standard regional guidelines for response performance. Response zones for urban, suburban, and rural deployment areas may be defined to reflect performance variances based on the population density of the communities being served. The agencies should determine valid and reliable reporting methods for response performance.

- **Financial and fiscal considerations.** Marginal costs of providing committee work should be considered. Reporting will require additional resources from the fire agencies and from dispatch. Only limited out-of-pocket costs will be required, possibly for software and training.

Guidance:

- Establish a technical advisory committee to provide design and development of appropriate data points and reporting methods.
- Create response standards.
- Create standards for reporting for the system.
- Implement data capture and reporting on a system-wide basis.

Fiscal Considerations:

- No significant financial considerations.

Partnering Strategy D: Peak Activity Units (PAUs)

Level of Cooperation: Functional

Timeline for Completion: Middle term

Section: Emergency Operations, EMS, and Training

Affected Stakeholders: All agencies

Objective: Provide special response fire/EMS units in areas of high incident activity, high unit/station reliability rates, and for replacement of units attending training sessions or called to cover special events.

Summary: As part of a cooperative effort, Kitsap County fire agencies could enter into agreements such as training, occupational medicine, public education, and standards of response for deploying resources. With a standard, shared incident data system, the agencies can plot workloads and response performance of their resources in a holistic fashion. Maintaining adequate emergency response capability during these and other activities may require the use of non-traditional staffing strategies.

One such method is to staff additional emergency response units as needed. These units are sometimes referred to as *Peak Activity Units* (PAUs). A PAU (i.e., pumper, medic unit, ambulance, squad, or aerial device) can be staffed for a scheduled event, for periods of peak demand, or to cover a response zone while other fire personnel attend training. Adding PAUs as an adjunct to current staffing patterns adds considerable flexibility to fire department emergency operations.

Discussion: A traditional fire company is staffed by three or four personnel. A traditional fire department EMS unit is staffed by two personnel. Typically (in predominately career fire departments) these units are continuously available to respond to emergencies. Move-ups or the repositioning of fire companies or EMS units to cover understaffed response zones due to emergencies or training has been a long-standing practice of many fire departments. Only recently, as a result of more powerful analytical tools, have some fire departments become more aggressive with move-ups, spawning such terms as “dynamic redeployment,” “system status management,” and PAUs.

It should be noted that a PAU would have staff assigned that may work a different schedule than the hours worked by typical firefighters. An example of this type of staffing schedule that is quite popular on the West Coast is shown in the following figure. A total of six suppression personnel, two officers, two

engineers, and two firefighters work a 48-hour workweek. The EMS unit scheduling would be slightly scaled down. Each person is assigned two 12-hour shifts and one 24-hour shift. Under this arrangement, when working a 24-hour shift, it is possible that a person could be assigned to fill a vacancy of another company during the second 12 hours.

Note: Any discussion of alternative working schedules is only hypothetical and is used here as a way of illustrating this partnering strategy. Any and all proposed changes to work schedules and working conditions must be conducted through a collective bargaining process with representatives of the respective firefighter associations.

Figure 98: – Optional Personnel Shift for PAU

Sample Schedule for Staffing a Peak Activity Unit						
Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**	**Sunday**
Officer 24 hours	Officer 12 hours	Officer 12 hours	Off	Off	Off	Off
Engineer 12 hours	Engineer 24 hours	Engineer 12 hours	Off	Off	Off	Off
Firefighter 12 hours	Firefighter 12 hours	Firefighter 24 hours	Off	Off	Off	Off
Paramedic 12 hours	Paramedic 24 hours	Paramedic 12 hours	Off	Off	Off	Off
EMT 12 hours	EMT 12 hours	EMT 24 hours	Off	Off	Off	Off
Off	Off	Off	Officer 24 hours	Officer 12 hours	Officer 12 hours	Off
Off	Off	Off	Engineer 12 hours	Engineer 24 hours	Engineer 12 hours	Off
Off	Off	Off	Firefighter 12 hours	Firefighter 12 hours	Firefighter 24 hours	Off
Off	Off	Off	Paramedic 12 hours	Paramedic 24 hours	Paramedic 12 hours	Off
Off	Off	Off	EMT 12 hours	EMT 12 hours	EMT 24 hours	Off

Other possible configurations for staffing PAUs include but are not limited to:

- Staff the EMS transport units with qualified volunteer or part-time BLS personnel to provide all hospital transports.[45]

[45] ALS personnel from fire companies would accompany EMS units on ALS transports.

- Staff a PAU with overtime/callback personnel to meet individual situations such as training sessions, fire prevention activities, special community events, and anticipated peak activity periods.

- Staff an engine with three personnel available 12 hours per day, seven days each week. The staffed hours would be adapted to cover the time when the greatest number of calls for service typically occurs or in a response area where workday volunteer response is reduced.

- Staff a medic or ambulance with two personnel available 12 hours per day, seven days each week. The staffed hours would be adapted to cover the time when the greatest number of calls for service typically occurs or volunteer staffing is low.

- Staff a PAU with personnel eight hours per day, five days each week.

Critical Issues:

- **Communicating work schedule changes**. Discussions involving any changes to work schedules and or working conditions must be conducted with representatives of the respective bargaining units.

- **Training issues.** The personnel used to provide PAUs must be included in on-going training activities. Minimum training standards and requirements between cooperative agencies must be developed and incorporated to insure that any shared staffing configurations would insure that the staffing has been trained to a minimum standard level. The personnel on PAUs must be cross-trained to understand the management structures and oversight capabilities of each host agency.

- **Roles and responsibilities.** Kitsap County agency partners should clearly define roles and responsibilities of the personnel on PAUs. The roles and responsibilities should be clearly communicated to all personnel and not limited to those assigned to a PAU. Kitsap County fire agencies should have integrated electronic reporting mechanisms for incident reports. Personnel that staff PAUs should not have to learn multiple reporting methods based on where they happen to be temporarily assigned. Lines of supervision and authority for PAUs must be clearly defined.

- **Financial and fiscal considerations.** Agencies will need to determine how the cost of PAUs will be allocated if personnel staffing PAUs are shared. If a PAU has EMS responsibilities, it may be necessary for some agencies to purchase integrated patient care reporting systems so that personnel can provide patient care reports irrespective of where they are assigned.

Guidance:

- Establish minimum training standards and standardized training for fire and EMS personnel participating in this program.

- Do not limit potential options for non-traditional staffing.

- Develop guidelines for uniform incident reporting guidelines.

- Establish standards for fire and EMS electronic reporting and integrate those standards across the system.

- Establish standards for deploying personnel between agencies.

- Align agencies to provide appropriate oversight irrespective of where the personnel are assigned.

- Ensure agency support for standardized personnel services.

Fiscal Considerations:

- Financial support will be necessary, and a process for allocating costs between agencies will be required.

- The agencies must determine whether and what type of hardware and software will be needed for incident reports.

Partnering Strategy E: System-wide Deployment Plan for ALS

Level of Cooperation: Functional

Timeline for Completion: Short, medium, and long term

Section: EMS and Emergency Operations

Affected Stakeholders: All agencies

Objectives:

- Provide guidelines for deployment of paramedic resources.
- Ensure that the closest available paramedic arrives within the established system response parameters.
- Maximize use of ALS personnel.
- Maximize use of EMS transport units.

Summary: CKFR, SKFR, and the Bremerton Fire Department have a fully incorporated ALS first response program using dedicated ALS units. While the Kitsap County agencies have some depth to their EMS program, multiple-simultaneous EMS responses, the current use of ALS units for all BLS and ALS transports, and elongated transport times serve to spread the ALS contingent thin. In some instances, patients could potentially receive a delayed ALS response or no ALS intervention at all.

Discussion: State and national statistics fully support the concept that the demand for EMS services in the United States is primarily BLS driven. Without exception, the larger percentage of EMS response for fire-based EMS systems is for BLS incidents and results in BLS transports. It is also generally accepted throughout the U.S. that true ALS incidents and transports generally account for only about a 14 – 18 percent margin of total EMS demand. Because of the staffing limitations in smaller fire-based EMS agencies, most patients receive ALS treatment and transport for typically BLS symptoms. Staffing restrictions in those fire departments drive those agencies to maximize their dedicated ALS unit and personnel by providing all hospital transports with the ALS unit. As more modern and progressive EMS systems emerge in the fire service, the former model may be less inefficient.

A *regional* ALS delivery model may provide additional opportunities for integrating the EMS system. A regional EMS system could make better use of fire agency ALS capabilities and eliminate the need for always using ALS units for both BLS and ALS transports.

This system structure could provide opportunities for ALS first response fire units to be developed and staffed with existing firefighter/paramedics. This is undertaken primarily to enhance participation in the EMS first response system and simultaneously improve ALS service delivery. This would potentially provide for a more cost effective means of utilizing transport resources if the volunteer force was integrated into the BLS transport business. The agencies should consider the value of requiring system standards for fire first responders in meeting standards for the ALS providers. The system improvements could be considered as part of an overall Kitsap County system design plan rather than a focused plan for any one agency.

A long-term plan for EMS service delivery should consider how the ALS fire agencies will provide operational support to the regional system and how the system can more adequately provide financial support to the fire agency responders.

Critical Issues:

- **Deployment considerations.** Kitsap County fire agency partners should design deployment alternatives so that a paramedic arrives on the scene regardless of whether it is a fire or EMS resource. Positioning of fire agency resources should be predetermined locations based on the maximum ALS use and system demand. ALS transports could be provided with attending ALS personnel from the first response unit remaining with their patients.

- **Financial and fiscal considerations**. Marginal costs of deploying additional ALS personnel will be determined based on the agency and on personnel costs. Startup costs will include additional training as well as the supplies and equipment needed to equip the appropriate number of ALS fire response units and staffing of EMS transport units. Cost recovery will be through a cooperative agreement with the Kitsap County fire agencies jointly staffing and providing EMS transport and through joint agreements. First response reimbursement for some patients may be possible.

Guidance:

- Map out the current staffing models for each of the agencies.

- Identify through gap analysis the need for paramedic resources at each responding company at each fire agency.

- Plan for paramedic hiring through attrition at career-staffed BLS agencies.

Partnering Strategy F: Joint Support and Logistics Services Division

Level of Cooperation: Functional

Timeline for Completion: Long term

Section: Support Services

Affected Stakeholders: All agencies

Objectives:

- Develop a joint Support Services Division that promotes improved operational readiness and that achieves procurement efficiencies by eliminating duplication in the acquisition and distribution of supplies.
- Create a uniform set of standards for apparatus, small equipment, PPE (personal protective equipment), emergency supplies, and IS/IT services.
- Develop a joint preventative maintenance and repair service program for physical assets, apparatus, small equipment, and IS/IT systems.

Summary: Throughout nearly every public or private emergency preparedness institution, the state of readiness and effectiveness is highly dependent on support services. Support services assure the materials and services necessary to keep an agency operational and functioning. Every Kitsap County fire agency provides some form of support services within their organizations. SKFR and CKFR both have very well organized support services programs and facilities to maintain a state of readiness. Support services offered under a *joint support and logistics division* can be modular and may include:

- Standardization of apparatus, equipment, and PPE.
- Standardization of fire/EMS/rescue supplies.
- Centralized purchasing and distribution.
- Centralized fleet and equipment maintenance.
- Mobile maintenance services.
- A regional preventative and safety maintenance program for facilities, apparatus, equipment, and other physical assets.
- Centralized facility maintenance.
- Centralized technical services.

The purchasing program can create joint bids for supplies and equipment and may achieve additional benefits such as integrated inventory of supplies that can accommodate lag times in deliveries from manufacturers and suppliers.

Discussion:

Support Services Division – At the heart of any emergency fire department are the activities and functions that support the delivery of emergency services. Support services keep agency assets in operational readiness and ensure that enough supplies, tools, and equipment are available for emergency workers to mitigate the emergency. Every agency in this study dedicates a certain level of daily effort in maintaining emergency apparatus and equipment.

Although fire agencies are emergency services providers, they also are businesses that spend millions of dollars each year to ensure emergency mission readiness. Like all businesses, fire departments need to be receptive to new practices to maximize the effectiveness of budget dollars. Such practices may take the form of economies of scale, administrative efficiencies, paperwork reduction, technological advances, and innovative cost-saving concepts.

Acquiring and maintaining physical assets (facilities and grounds), IS/IT systems, vehicles, and equipment is a labor-intensive process requiring good policies and attention to detail. The procurement and distribution of routine supplies is also an important 'behind the scenes' process that needs hands-on work and meticulous recordkeeping. Because of the variety and size of the participating fire agencies, these support services are currently provided by a variety of full-time, part-time, and/or suppression employees. In all cases, filling the demand for support services is a constant necessity in any organization and vital to ensure the operational readiness of the agency. Key elements of a joint support and logistics services division would be:

- Assessment of current assets.
- Assessment of current levels of support service activities.
- Standardization of apparatus, equipment, and supplies.
- Standardizing preventative maintenance programs and recordkeeping.
- Centralization of apparatus and equipment repair and maintenance.
- Provisions for mobile repair and maintenance services during emergency incidents.
- Centralization of supply and equipment acquisition and distribution.
- Development of a facilities and grounds maintenance program.
- Standardization of IS/IT services.

As listed above, a key to realizing the benefits of shared support services is standardization of apparatus, equipment, and supplies. In this exercise alone, standardization assures greater financial and operational efficiency and effectiveness. Fundamentally, this is the most important aspect of forming a joint support division. Standardizing specifications for the purchase, repair, and maintenance of apparatus, SCBA (self-contained breathing apparatus), communication devices, and miscellaneous equipment often equates to less out-of-service time. Support personnel will need to be certified for repairing and maintaining fewer apparatus and equipment types. Fewer parts need to be stocked for repair and maintenance. Such practices are described as "economies of scale." NFPA 1915 points out that repairs by qualified technicians may provide longer apparatus life, safer operations, and the early detection of maintenance and repair problems.[46] The result is often a short- and long-term savings on rolling stock and small equipment. A centralized repair and maintenance facility cooperatively organized as a support services division ensures that routine maintenance and repairs of physical assets are completed in a timely manner. Maintaining public assets in this way is a demonstration of responsible stewardship.

The standardization of apparatus, equipment, and supplies plays strongly into the overall effectiveness and efficiency of daily emergency operations. Standardized support functions are a key part of unified emergency operations and response—especially when equipment from multiple Kitsap County fire agencies work together at large-scale emergencies.

Logistics Services – A multi-agency purchasing program could improve management of the agencies' supply chains. In theory, the agencies would collectively consolidate to a centralized logistics center to manage procurement and distribution. The logistics center would work with each of the agencies to standardize supplies and equipment. The program would follow state and organizational purchasing guidelines and make supplies and equipment available to all of the member agencies.

Distribution can be managed internally or through agreements with suppliers to gain the advantages of collective purchasing and supply: 1) a larger, collective bid process for supplies can achieve lower prices and attract additional competitors; 2) the logistics center can negotiate terms of the conditions of the sale that might not be available to smaller purchasing centers; and 3) the logistics center can conduct collective bidding processes that are applicable to all of the agencies.

[46] National Fire Protection Association, Standard 1915: *Standard for Fire Apparatus Preventive Maintenance Program*, 2000 Edition.

Coordination is important to the success of a joint purchasing program. Each of the agencies currently conducts purchasing of virtually all supplies and equipment independently. As such, a joint effort will reduce the work required by any single agency to provide purchase and provide supplies.

Critical Issues:

- **Coordination issues.** A cross-functional committee of system purchasing agents and EMS system participants can work together to design purchasing rules for each agency. The committee can provide a standardized equipment list for agencies. The agencies can share bidding processes so that the bidding procedure used by the purchasing agent can be used by all agencies. Agencies must work closely with the cross-functional committee to ensure that the goods are received and distributed to the appropriate locations. Fire agencies should have agreements in place to specify inventory and purchasing plans.

- **Receiving and distribution considerations**. Fire agency partners should design distribution plans to deliver goods directly to the appropriate locations. Using a joint purchasing system, the agencies will no longer have to receive goods at the agency; instead, they can receive goods at the appropriate centralized support center. The agencies can jointly determine the proper level of inventory to maintain within the system. The use of system-wide inventory planning ensures that the most cost-effective inventory management can be established for the system participants.

- **Financial and fiscal considerations.** Marginal costs of creating system-wide purchasing infrastructure should be compared against the reduced level of effort of individual agencies. Cost savings can be achieved through reducing inventory carrying costs, reducing transaction costs, and achieving economies of scale through larger volume purchasing. The participating agencies should agree on contributions to account for more difficult to discern costs, such as freight charges and unit costs for warehousing space.

Guidance:

- Develop a system-wide, cross functional committee to explore a joint purchasing/maintenance processes.

- Work with elected officials to adopt purchasing requirements that help the agencies meet purchasing goals and guidelines.

- Establish standards for fire and EMS system equipment and supplies.

- Establish inventory standards and methods for distributing equipment and supplies.

- Develop specific standards for apparatus, equipment, PPE, SCBA, communication equipment, and supplies.

- Inventory and evaluate current physical assets, apparatus, equipment, and operational/facility supplies.

- Contract for or align agencies to provide logistics and supply services.

- Evaluate other cooperative support service programs throughout the area.

- Determine support components that would best benefit all departments immediately and in the long term for program expansion.

- Evaluate current levels of support functions and identify successful elements to incorporate into the joint program.

- Create prescribed load lists for apparatus.

- Insure that all aspects of a joint support division are based upon recognized local, state, and national standards as well as manufacturers' recommendations for repair and maintenance.

- Determine the most efficient and effective location for support functions. This may include multiple facilities that are strategically located.

- Develop a mobile maintenance/repair program.

- Evaluate cost/benefit of outsourcing support services.

Fiscal Considerations:

- Financial support may be necessary, as agencies will be required to meet the costs of creating or modifying existing logistics systems.

- The soft costs generated by cross functional committee meetings necessary to accomplish objectives of the program.

- New or additional FTEs to operate support service functions.

- Incremental costs of transitioning to standard apparatus, PPE, SCBA, and small equipment.

- Conversion of existing facility or acquisition of real property for a logistics, support services, and maintenance center.

- Expected cost savings and operational benefits will result from:
    - Elimination of duplication of services, administration, training, supplies, parts, and equipment.
    - Standardization of equipment, parts and operational/facility supplies.
    - Effective acquisition, accountability, and distribution of supplies and equipment.
    - Bulk purchasing.
    - Preventive maintenance of physical assets, apparatus, and equipment for optimum safety and readiness.
    - The elimination or reduction of "outside" costs for repair, maintenance, and servicing of physical assets and equipment.

Other Strategies

Administrative Alliance

CKFR, SKFR, and BFD could take the option of choosing to enact an *administrative service alliance* through the execution of an inter-local agreement (IGA).[47] Depending on the form of the IGA, the resulting functionally consolidated agency may feature a single organizational structure or, alternatively, one administrative structure with two or three separate operational divisions. In both cases, existing boards of commissioners and city officials remain unchanged, although a joint oversight board may be formed from the three governing bodies for the purposes of alliance management.

An alliance in which an administrative team must oversee more than one operational structure tends to be more difficult to administer due to different contracts, cultures, rules, and processes. Frequently, leadership and employees of such organizations describe their workplace environment as "dysfunctional" and in "we" and "they" terms. For these reasons, ESCi recommends that if an administrative alliance is chosen, the Kitsap County fire agencies consider only the option of an administrative service alliance with one (functionally merged) fire and EMS organizational structure.

An administrative alliance may be governed in a variety of ways. For instance, an administrative alliance may be administered jointly by a representative council or by one district board with the other agencies in the role of contract client.

To fix the parameters of analysis, ESCi assumes that an alliance results in a single organization administered by one chief fire officer and governed by an oversight board made up of representative policymakers of each jurisdiction. The proposed agency would operate immediately as a multiple battalion operation, providing fire and emergency medical services to the combined territories of Central Kitsap Fire & Rescue, Bremerton, and South Kitsap Fire & Rescue. The administrative and operational makeup of the resulting organization should include the same number of full-time and part-time employees as the combined departments, although some jobs may be realigned or reassigned to fit the needs of the larger organization. This analysis assumes the ratio of administrative and support positions of the new department remains relatively constant (between 15 and 17 percent of total FTE positions). The volunteer program and the volunteer members of the new organization are also assumed to, at a minimum, equal or exceed the combined volunteer resources of the Kitsap County fire agencies.

[47] Under the provisions of RCW 39.34.

Integration/Merger

Washington State law provides a process for two or more fire districts to *integrate* or *merge*, forming a new political entity. If authorized by a vote of the electorate, one or more existing districts are essentially dissolved and consolidated or merged into the lead fire district. Should Bremerton choose to merge into the new fire district, the city would have to execute an election to annex the city into the new jurisdiction or enter into an inter-local agreement for services.

A preferred method for integration of fire agencies from cities into a fire district model may be the new regional fire authority. While the entire fire department operations and responsibility is shifted to the new entity, the city and districts would still have equal governance participation.

The fire agency that results from a consolidation of the Kitsap County fire agencies is assumed to operate identically to the department resulting from an administrative service alliance with only one exception: one elected board governs a merged fire district.

Kitsap County Partnership Issues

As with any cooperative undertaking between organizations, the members of the organizations and others have differing perceptions of obstacles and benefits. In an effort to identify and understand these issues, ESCi interviewed numerous individuals and groups directly associated with the Bremerton Fire Department, Central Kitsap Fire & Rescue, and South Kitsap Fire & Rescue: the chiefs, the fire commissioners, administrative officers, management officers, labor groups, and volunteers of the departments. Comments and issues raised are summarized below. Similar comments have been combined for clarity. The veracity of the statements was not investigated nor is the listing rank ordered.

Expectations

The majority of participants look forward to certain things from the study and/or from the outcome of joining the Kitsap County fire departments. The interviewees were asked to verbalize those expectations. The following is input from the participants:

- Clear and open communications throughout the entire project period and subsequent process.
- Consideration of the traditions and cultures of all three entities.
- High level of customer service will be maintained during and after transition.
- Improvement to the Community Fire Rating from WSRB will result, reducing the cost of fire insurance to residential and commercial occupancies in the new agency.
- Timelines and standards will be established for the organizational change.
- ESCi's report will recommend what the agencies should do.
- Questions of financial feasibility will be answered in light of the need for ongoing investment in capital facilities and personnel.
- ESCi's report will provide a third-person review and verification of the proposal in terms of what is best for the organizations and the public.
- ESCi's report will list the options available to the organizations and will identify the best single action.
- An answer to the question – Is the proposal beneficial to taxpayers?
- Information will be provided to help elected officials make an informed decision concerning the proposal.

Strengths

The persons and groups interviewed were asked to express what they perceive as the strengths of the proposal to join the Kitsap County fire agencies:

- A combined organization will provide more opportunity for all of its members.
- The alliance would provide the ability to add emergency resources to the more rural Kitsap County community in the future.
- The action may cause similar actions by other fire districts of the region to do the same or to join this group.
- Combining the resources of three agencies will make it easier and safer to serve the overall area.
- Boundary issues between the region's governments and service providers will be simplified in order to provide a uniform approach to development and community service.
- Combining the agencies will add to the depth of emergency resources (firefighters, paramedics, and apparatus) available to all fire departments.
- The resulting agency will be stronger in the long term with greater depth while spreading the cost over a larger geographical base.
- Although likely not a short-term advantage of the proposal – perhaps the community will benefit in the future because higher quality emergency service is provided to a larger number of people and property.

Weaknesses

Understanding the risks to any proposal is important. The interviewees were asked to express the weaknesses of greater cooperation between the fire districts:

- Will the workload of some individuals or groups be stretched by taking on additional responsibility thereby reducing output quality?
- Perceived disparity of services between career and volunteer crews.
- Delivering training to paid and volunteer contingents may be difficult.
- Staffing may be spread thin for a few years.
- Fully integrating the differing volunteer and career organizational cultures will be difficult.
- Political and governance issues may be problematical. Such issues can occasionally doom even the most clearly feasible cooperative idea.
- The perception by some that control or representation of the community's or organization's interests may be lost.
- The feeling that the volunteers will be forced out of the consolidated organization.

- The perception that the proposal is really a "takeover" of one agency by another.
- The perception that raising standards in one agency will compromise the standards of the other.
- The personality traits of individuals in the organizations may play to negative feelings about the proposal.
- The perception that one community will subsidize another, thereby causing a political and financial drain.

Needs

Each person or group involved in the proposal to join the Kitsap County fire agencies perceives that certain things must happen for the plan to succeed:

- The career and volunteer groups need to champion the process.
- The proposal has to be financially feasible now and five or ten years into the future.
- The economics must work. There must be economy of scale and coordinated service level improvement in fire, EMS, hazardous materials, and fire prevention services.
- There must be equity in funding between neighborhoods.
- There must be an active volunteer program as an integral part of the new organization.
- Organizational change and growth needs to takes place in a deliberate and consistent manner in accordance with a business model.
- That organizational change is managed in a way that treats all personnel fairly. This may require an understanding that long-term integration of personnel policies may require short-term compromises.
- A continued good labor and management relationship.
- A means for selling the proposal to the communities.

Fatal Flaws

The foregoing represents issues recognized by the persons and groups who would be charged with carrying out a directive to join the Kitsap County fire agencies. Most of the identified concerns merely outline the organizational landscape that the individuals will work in while accomplishing the goal. Up to this point, the matters listed may make the process easier or more difficult but will not doom it. The issues listed below were identified by the interviewees as being the sort of "train wrecks" that could derail a cooperative venture between the districts:

- The manner in which existing personnel of the Kitsap County agencies are transferred and/or integrated into the new organization. Specifically, how existing career persons and the volunteer personnel are treated.

- If the volunteer firefighter program is ended.
- Politics.
- The lack of salesmanship by the leadership, elected officials, workgroups, or members for this merge.
- Significant disregard or degradation of cultural traditions and pride in each organization.
- Increasing taxes significantly in any community.
- A lack of acceptance or buy in at the operational level of the organizations.

Findings and Recommended Action

Summary of Feasibility

This section presents a series of options, from alliance to integration that are available to Bremerton Fire Department, Central Kitsap Fire & Rescue, and South Kitsap Fire & Rescue.

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By choosing to create an alliance, the agencies could share in the development and delivery of one or more of many existing programs: response and operating standards, support and administrative functions, consolidation of resources, special operations, training, and fire prevention. The agencies could elect to implement a more complete and inclusive alliance through the enactment of a joint operating inter-local agreement. Alternatively, the districts may opt for complete integration through a merger.

While each of the options in this report is feasible; finance, politics, and culture sometimes determine the practicality of cooperative ventures. This may or may not prove to be the case in the communities served by the Kitsap County fire agencies.

Finding of Preferred Option

The ESCi project team considered all of the findings, facts, data, and history of cooperation between the three entities. The scope of this report directs that it will focus on administrative service alliance (a joint operation) and integration (full consolidation or merge); therefore, while ESCi considers all of the programmatic alliance options as feasible, we do not attempt to estimate the financial outcomes of them. Most often, such shared programs are comparatively easy to implement and relatively cost effective to operate.

Barring the enactment of an administrative service alliance (joint operation) or a consolidation/merge option, ESCi recommends that in the short term BFD, CKFR, and SKFR implement as many shared programs as feasible.

The question of choosing among an administrative service alliance, a functional consolidation, or a full integration (merger) of the three entities boils down to selecting the option that offers stable economics with a balance between level of service to the largest area and the greatest number of people.

There are no major operational differences between an administrative service alliance, functional consolidation, or merger; however, cost, taxation, and governance of the three options are different. Under an administrative service alliance, the districts must continue to collect and allocate taxes based on existing authorization. This may be difficult because the overall cost of an administrative service alliance is greater than the cost of an integrated department.

An administrative service alliance can complicate the governance of fire protection with multiple governing and/or oversight bodies. ESCi believes that an administrative service alliance is marginally feasible and is better suited for a short-term solution. A merger of the Kitsap County fire agencies offers long-term benefits and a better level of emergency services to all communities.

Both fire districts have recently increased their taxing capacity with voter-approved tax lid lifts. EMS levy renewals further eliminate most taxation differentiation issues. If the fire districts delay an alliance, a disparity in funding will likely occur and continue to grow.

Preferred Option

As previously stated, the scope of this report directs a focus on administrative service alliance and integration; therefore, ESCi considers all of the alliance options feasible. Barring the enactment of an administrative service alliance or a consolidation option, the jurisdictions should undertake to implement as many shared programs as possible.

The recommended option is for an integration (merger) of all three Kitsap fire agencies either through a merger of the fire districts and annexation of the city of Bremerton or by the formation of a new entity, the Kitsap County Regional Fire Authority. This recommendation is based on the Kitsap County fire service history, the Kitsap fire service vision as spoken of in previous studies, and ESCi's analysis of the current operations of the three project fire agencies

Option 1: Full Integration with Reallocation of Resources

ESCi recommends the three agencies establish a goal to pursue a full legal integration that results in a single fire agency. A description of governance models is provided later in this report.

Our experience has shown this process may take several years to complete and is frequently accomplished through a series of interim steps. This option allows for the redeployment of resources. Fire stations can be distributed to reduce unit reliability rates and to provide improvement in response

performance to the combined 283 square miles service area. This option does not propose a change in the number of FTEs.

A reduction or elimination of duplication can be expected with the consolidation of administration, support, human resource, and technical services. Future benefits include efficiencies with standardization of equipment, supplies, group purchasing, standard operating guidelines, and procedures.

The formation of a Regional Fire Authority may be the most feasible and provide the best form of representation and governance.[48]

Option 2: Unification of Operational Delivery Services

A second option would be to unify operational delivery services. There is an overlap of coverage in the core area with facilities and apparatus placement. A consolidation of operations would eliminate duplication and ultimately provide better response performance in the entire service area. A successful unification of the operations could become a basis for other joint efforts and lead to other functional consolidation efforts.

Option 3: Opportunities for Cooperative Effort

In the absence of unification or the joining of fire operations, ESCi believes there are opportunities for cooperation between the agencies. This report establishes a variety of *Opportunities for Cooperative Effort* and details a number of organizational concepts, including the consolidation of the fire departments. The concepts examined do not represent all possible arrangements of the participating agencies, only those judged by ESCi and the participating agencies as likely to be successful in gaining acceptance.

In identifying potential cooperative opportunities, the project team considered the key issues now challenging each agency. Some issues represent roadblocks to integration, while others provide a unique chance for improvement. As an element of the review, affected staff and other officials provided local and internal perspective on organizational culture, community expectation, and other significant matters.

[48] Appendix G includes an agency profile and figures assuming a consolidation/merger of the three agencies.

Creating a Financial Baseline

Generally, ESCi uses a set of standard conventions when evaluating the budgets of individual agencies for the project. Depending on local situations, we may apply other special protocols to our calculation of the financial impact of restructuring. Regular and special conventions observed in this study are:

- **Jobs.** To facilitate the analysis, we assume that in combining the agencies an agreement is reached in which all Kitsap County positions are preserved but not necessarily converted to exactly the same jobs in the new consolidated organization.

- **Job Classifications.** Differences exist between the job classifications and structure of the agencies. Although ESCi combines the three departments and carries out financial analysis of a consolidation/merger based on the existing organizations, we note that in the long term the districts may need to restructure their administrative and support sections to better suit the new character of the expanded district.

- **Volunteer Membership.** The number of volunteer personnel in a merger scenario within the model will generally equal the sum of the current rosters of the combining agencies. In the case of this project, it is clear from all of the compiled data that a sharp increase in the number of volunteers and a changing role in the staffing profiles using volunteers may be in order for this consolidation to function effectively and efficiently. In ESCi's experience, it is prudent to budget in this manner; however, any change as significant as consolidation usually results in at least a temporary loss of some volunteer positions. Frequently, ESCi finds that some volunteers or on-call personnel maintain membership in more than one organization. When the agencies merge, the multiple memberships result in a net loss of membership in the unified department. A new volunteer association may be formed to represent the interests of the members with the district or, in some cases, existing volunteer associations continue for a period.

- **Compensation.** Some job classifications within a separate agency may have more than one level of compensation assigned. For this project, ESCi was able to facilitate Total Compensation matrices (see Appendix C) with all three entities to identify existing compensation rates; consequently, the model makes compensation assumptions that are very close to the actual amounts paid by the agencies. When merging organizations, ESCi assumes that the highest salary paid to similar classifications prevails.[49]

- **Created positions.** In some cases, agencies may choose to create jobs to accommodate the orderly melding of all positions of the merging organizations. When a post-merger job is created, we assign an assumed compensation level to the new position in proportion to the existing jobs.

- **Volunteer costs.** Costs associated with volunteers are not identified for each agency within the model.

- **Facility expenses.** Costs associated with the operation and maintenance of fire station facilities center primarily on utility and repair/maintenance indexes. In addition, it is often feasible to break out other expenses such as insurance and/or technological assets; but after the initial capital outlay has been expended to place the facility, the actual on-going cost of operating the facility as a fire station is generally not a major financial consideration in light of any consolidation efforts.

[49] Specifically, if each agency has the same job classification (i.e.: lieutenant), but those positions are paid different salaries, it is assumed that the compensation of that job in the merged department will be paid at the highest former rate.

- **Governing board expenses.** Fire districts usually maintain line item accounts for expenses associated with governance (mileage, per diem, reimbursement, elections, insurance, and meetings). When districts are combined by integration, such duplicated expenses are eliminated, thereby creating a direct saving. Governing body expenses are not factored out of modeled budgets when an alliance is considered.

- **Revenues.** The non-tax revenues of the two districts are combined after a consolidation/merger. In the case of CKFR and SKFR, non-property tax revenue plays a fairly major role in the overall picture.

Forecasting Financial Results

The baseline process described above provides a kind of "snapshot" of the fiscal effects of consolidation as if the action takes place during the current budgetary year. The baseline permits a comparison of existing fiscal policies of the agencies with the budgetary and taxation changes relating to the cooperative model. This methodology yields a comparison of the "what if" of a merger against the baseline of current taxation and a *modeled levy rate* of operational costs against the current assessed values. These are the two comparative indexes that allow sufficient analysis of the three fire agencies' financial profiles.

While comparing the cost of emergency services in CKFR, BFD, and SKFR to the outcome of merger in the current year is helpful, it begs the invariable question, "What might the integration cost in the future?" If the merger is financially feasible now, might it remain that way in the future or will changes in labor, materials, capital, and demographics change the outcome?

To assist in answering this question, ESCi projected financial costs of a Kitsap County fire agency consolidation through a 20-year planning horizon. As discussed earlier in this report, the immediate primary financial change and/or impact as a result of integration will occur in the process of re-aligning personnel costs based upon current compensation packages. The forecast does not attempt to predict the finances of the districts 20 years into the future because changes in law and politics are certain to make such forecasting incorrect. Rather, the ESCi analysis shows how trends in the CPI-U, the cost of labor, the assessed value of the districts, and the demographics of the districts may act on the outcome of consolidation based on 2006 policy and law.

The *assumptions* made in forecasting a BFD/CKFR/SKFR integration are listed below:

- **Administrative staffing.** The number of administrative and support jobs in the consolidated district are maintained to current levels at a minimum.

- **Operational staffing.** Operational positions are maintained in the consolidated/integrated models in accordance with the current levels of staffing for the baseline years until a regional standard of

coverage is adopted with a 90th percentile target as the measuring device. As the forecast population of the region increases, additional nonspecific operational staff positions are added to the model as the benchmark exceeds baseline positions.

- **Compensation.** The costs associated with salaries, overtime, benefits, and volunteer reimbursement are assumed to increase by 3.6 percent compounded each year based on a ten-year trend of the Seattle/Tacoma CPI-U.

- **Budgetary line items.** All materials, services, and capital budget line items are assumed to increase by the ten-year average of the Seattle/Tacoma Regional CPI-U each year (3.6 percent) through the year 2015. In addition, budget line items are adjusted in accordance with the aforementioned modifiers to account for changes in staffing, volunteers, stations, offices, vehicles, emergencies, assessed value, and population.

- **Stations and apparatus.** Reduced stations and emergency apparatus cost reductions are factored into the annual budget in accordance with the median value of other western fire departments serving similar populations as reported by NFPA and FEMA. Only operational costs are included in the calculation of the general fund; construction, purchase, or equipping costs are not included. (See discussion of general obligation debt below.)

- **Non-tax revenue.** All non-tax revenue of the districts is assumed to increase in accordance with the average change in the CPI-U. Additionally, revenue associated with ambulance transports should be modified in accordance with the expected change in the population being served, noted trends in annual EMS workloads, and a potential change in the EMS delivery model.

- **General obligation debt.** ESCi does not include a calculation of voter approved general obligation debt associated with the construction of new fire stations or the purchase/equipping of emergency apparatus in any of the general fund models. Such expenditures usually fall outside of general fund budgeting and must be independently authorized by voters.

- **Assessed value.** The assessed value (AV) of the districts is assumed to increase in accordance with the trend over the last ten years. In addition, ESCi assumes that during the next decade new construction in the region will exceed the trend, adding additional tax revenue each year. Not considered in this analysis is the frequency of tax levy re-authorizations ('lid lifts') by the Kitsap agencies, either separately or collectively. As stated before, several larger fire departments in the Puget Sound area have adopted financial strategies which conduct annual lid lifts to maintain a revenue stream consistent with the community growth factor and to reduce the impact of waiting until levy rates are dangerously low, which creates an untenable gap for the taxpayer to recover.

Financial Results of Integration – Baseline Year

This baseline budget methodology allows an analysis based upon equal benchmark factors for all participating entities – whether a fire district or a municipal fire department. By establishing a *baseline model budget levy rate* for all project agencies, a cost representation is used to measure each agency's current and consolidated cost against a standard factor. This is accomplished by extracting the true operational costs for a given year (minus any major capital purchases or reserves/carryover) and measuring it against the current assessed property value of each agency. This exercise derives a 'model budget levy rate' that is universal for any kind of a fire entity.

- In the case of Bremerton Fire Department, the city encompasses 18 square miles with a 2006 equalized assessed property value of approximately $2.2 billion. The fire department's modeled annual requirements are approximately $7.2 million dollars—roughly 23 percent of the city's General Fund budget. This figure includes all hard and soft costs as provided by the city of Bremerton.

- Central Kitsap Fire & Rescue encompasses approximately 115 square miles, with an equalized assessed property value in 2006 of approximately $6.1 billion. The fire district's modeled annual requirement is approximately $12 million dollars.

- South Kitsap Fire & Rescue encompasses approximately 150 square miles, with an equalized assessed property value in 2006 of approximately $5.3 billion. The fire district's modeled annual requirements are approximately $10.6 million dollars.

The difference in the fire districts' and the Bremerton Fire Department's operating budgets shown above is in the size of the jurisdictional area, assessed value, and populations protected by CKFR and SKFR. They are considerably greater than those of the city of Bremerton. These factors result in a greater demand for service (call volume) and a larger number of fire department employees.

The tables below provides a modeled baseline budget of a combined SKFR/CKFR/BFD agency, whether through integration or simply by a consolidated effort. The process begins by calculating an *equivalent operations rate* based on the 2006 actual operating budget totals. This is not to be confused with the true, compounded property tax levy rate of both entities for 2006 as certified by Kitsap County. It also does not take into account other revenue that is received through contracts, billings, etc., which accounts for an additional 15 percent revenue for CKFR and 18 percent revenue for SKFR.

Figure 99 provides a comparative look at the *budget* vs. *actual* tax levy rates for 2006 and a consolidated budget model of the three fire departments.

Figure 99: – Model Operating Levy Rates, Kitsap County Agencies

Agency	2006 AV	2006 Ops Budget	2006 Ops Rate
CKFR	$6,049,291,380	$11,937,975	$1.9735
SKFR	$5,346,291,277	$10,074,074	$1.8843
BFD	$2,222,892,524	$7,211,516	$3.2442
Combined	**$13,618,475,181**	**$29,223,565**	**$2.1459**

It is important to note that this model is based on the current assessed property values, which are very stable, predictable, and easy to benchmark. Initial concern may be raised that the combined baseline budget levy rate exceeds the statutory limits of a fire district. As stated earlier, other non-tax revenues collected by the combined fire agencies can enhance the financial picture, depending upon the creativeness and fervor with which the combined agency pursues other forms of revenue.

The addition of the other fire district revenue sources will bring down the actual operating levy rate below statutory limits. This, coupled with the savings anticipated by resource re-deployments and re-assessment of duplicative administrative and support positions, provides the confident basis of the financial benefit to integrate. While it is clear for all participants that the operational and response performance gaps are the primary concern and target of this consolidation study, a positive financial outcome of a consolidation bears importance as well.

Within the body of this report, ESCi has identified a series of benchmarks to aid in the study of the operational and financial outcome of a full legal integration. In analyzing each benchmark, ESCi has compared the three agencies (as they exist in 2006) to the predicted outcome of the proposal. The first three benchmarks measure elements of the fire protection efficiency. The last one measures the cost of service to the community. The benchmarks are:

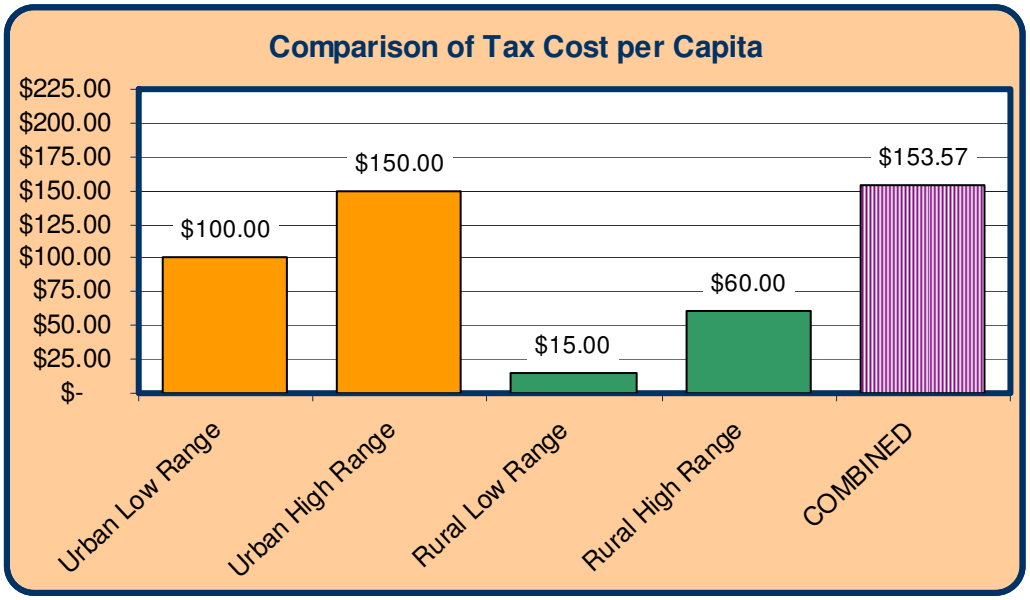
- Firefighters per $1,000 of assessed value
- Firefighters per 1,000 population
- Distribution of administrative and support jobs
- Cost of service per capita

The current combined 2006 operating budgets for the Kitsap County fire agencies in this project is approximately $29,223,565. In a combined baseline budget, BFD's 2006 model operating budget accounts for 24.68 percent; SKFR's budget accounts for 34.47 percent, while CKFR's budget accounts for 40.85 percent of the total.

The analysis of the projected cost for Option 1 predicts an integrated 2006 cost per capita of $153.57. The consolidated financial model represents an overall savings for the combined organization and a savings to each individual agency when non-taxing revenues are included in the per capita costs. Figure 100 provides a demonstration of those affects.

ESCi did not complete a financial analysis of Option 2 since these are functional programs already funded by both agencies. An assumption is made that a combined operational effort will eliminate current duplication and increase efficiency but not overall cost. Here the clear benefit would not be financial in nature but would, instead, improve current gaps in service and extend improved response performance to a greater area of a large jurisdiction.

Figure 100: – 2006 Consolidated Tax Cost Per Capita



ESCi has projected a modeled cost for a unified fire department based on 2006 budgets. With the potential re-deployment of resources and combining administrative and support services, there are economies of scale that project into a cost savings benefit from an overall view. More importantly, this cooperative service model eliminates potential redundancies while improving the level of services provided, thus improving the efficiency of the unified agency.

The initial staffing model for a consolidated fire department is demonstrated in Figure 101 below. After combining existing positions, the total number of FTE and volunteer members is 390 staff positions.

Figure 101: - Consolidated Agency Staffing

Kitsap County Fire Agencies Consolidated Staffing	
Position	**Total**
Executive Officer	13
Operations	187
Prevention	8
Administration	17
Support	10
Volunteer	155
Total	390

This model includes 40 FTE executive, administrative, and support positions; 195 FTE operational positions, and 155 volunteer members. This equals a 15.3 percent ratio of administration to operations positions.

In combining the three organizations, there are favorable economies of scale in the end result. However, strong consideration should be given to audit the effectiveness of the consolidated administrative staff level in relation to the combined workload that will occur after consolidation and integration. The governing board should aim at a 16 to 17 percent administration-to-operations ratio for effectiveness in serving this size of operation.

A total of 390 persons will serve the consolidated district in the baseline year. As an important element of this study, the administrative staff of the Bremerton Fire Department, CKFR, and SKFR worked closely with the ESCi team in developing a total computed compensation (TCC) matrix to calculate the cost of the current staffing levels. This exercise was based on current salary/benefit packages as well as other features provided primarily in the current collective bargaining agreements. Pound for pound, most of the positions of the three organizations are fairly comparable. Appendix C of this report provides the TCC charts for each agency.

Earlier in this report, ESCi identified three critical factors when developing a baseline cost to integration. Those factors are:

- **Jobs.** To facilitate the analysis, we assume that in combining the agencies an agreement is reached in which all Kitsap County positions are preserved but are not necessarily converted to exactly the same jobs in the new consolidated organization.

- **Job Classifications.** Differences exist between the job classifications and structures of the fire departments. Although ESCi combines the three departments and carries out financial analysis of a consolidation/merger based on the existing organizations, we note that in the long term, the districts may need to restructure their administrative and support sections to better suit the new character of the expanded district. Also, some job classifications within a separate agency may have more than one level of compensation assigned. For this project, ESCi was able to facilitate Total Compensation Cost matrices with all three entities to identify existing compensation rates; consequently, the model makes compensation assumptions that are very close to the actual amounts paid by the agencies. When merging organizations, ESCi assumes that the highest salary paid to similar classifications prevails.[50]

- **Compensation.** Some job classifications are not exactly the same titles as set forth in each agency's TCC charts. ESCi combined positions in certain categories based upon salary ranges and knowledge of the job duties for each position.

[50] Specifically, if each agency has the same job classification (i.e. lieutenant), but those positions are paid different salaries, it is assumed that the compensation of that job in the merged department will be paid at the highest former rate.

- **Created positions.** In some cases, the agencies may choose to modify current jobs to accommodate the orderly melding of all jobs of the merging organizations. When a post-merger job is created, the agency must assign an assumed compensation level to the new position in proportion to the existing jobs.

Having established these factors, Figure 102 calculates the results of a full consolidation of all current positions to an integrated organization. ESCi notes that there are a number of options in merging Executive, Administrative, and Support positions. And in the case of this analysis, ESCi took the liberty to re-classify certain positions in order to best classify and provide cost estimates for merging positions. For example, the recognition that there would be one fire chief assumes that the position should receive the current highest TCC rate while the other two current CFO's would assume deputy chief positions. In the case of the current deputy chief position, a move was made to reassign that person as an assistant chief. There are a number of options and schedules that could be developed, but for the sake of presenting a financial picture of the potential impacts of consolidating 235 FTEs, ESCi has developed this model.

Figure 102: – Consolidated Agency Personnel Costs

Position	Current Total	Consolidated Total	Highest TCC	Agency Name	Total Impact on Agency
EXECUTIVE STAFF					
Fire Chief	3	1	$142,453	CKFR	$0
Deputy Chief	1	2	$132,293	SKFR	$2,840
Assistant Chief	3	4	$131,870	CKFR	$30,145
Division Chief	1	1	$119,901	CKFR	$0
Admin Battalion Chief	4	4	$119,378	SKFR	$17,115
Captain	1	1	$102,288	BFD	0
Subtotal	***13***	***13***			***$50,100***
OPERATIONS					
Ops Battalion Chief	6	6	$117,678	CKFR	$12,513
Ops Captain	7	7	$109,285	CKFR	$2,115
Lieutenant	38	38	$101,288	SKFR	$49,276
Firefighter/PM--1st Class	44	44	$99,857	SKFR	$95,955
Firefighter/PM--2nd Class	3	3	$90,203	CKFR	$0
Firefighter/PM--3rd Class	1	1	$82,726	CKFR	$0
Firefighter/PM--Probation	1	1	$75,931	SKFR	$0
Firefighter/SCBA/Mech	6	6	$93,345	BFD	$0
Firefighter 1st Class	51	51	$92,709	SKFR	$69,561
Firefighter 2nd Class	9	9	$84,972	SKFR	$20,049
Firefighter 3rd Class	6	6	$77,888	SKFR	$11,190
Firefighter 4th Class	4	4	$63,777	BFD	$0
Firefighter - Probationary	11	11	$70,803	SKFR	$2,007
Volunteer	155	155	$0	n/a	$0
Subtotal	***342***	***342***			***$262,666***

Position	Current Total	Consolidated Total	Highest TCC	Agency Name	Total Impact on Agency
PREVENTION					
Fire Marshal	1	1	$100,278	BFD	$0
Inspector	6	6	$94,565	BFD	$50,035
Public Education	1	1	$82,550	CKFR	$0
Subtotal	***8***	***8***			***$50,035***
ADMINISTRATIVE STAFF					
Admin Director	2	2	$93,822	CKFR	$21,271
Finance /HR Dir	1	1	$93,095	CKFR	$0
Staff Assistant	4	4	$74,585	CKFR	$0
Admin Assistant / Sec	7	7	$55,322	SKFR	$31,047
Finance Assistant	2	2	$61,486	SKFR	$0
IT Tech	1	1	$74,495	SKFR	$0
Subtotal	***17***	***17***			***$52,318***
SUPPORT STAFF					
Maintenance Supervisor	2	1	$96,148	CKFR	$0
Mechanics	4	5	$79,051	CKFR	$12,412
Facility Supervisor	2	2	$78,636	CKFR	$1,604
Facilities Maintenance	1	1	$46,382	SKFR	$0
Logistics	1	1	$72,915	CKFR	$0
Subtotal	***10***	***10***			***$14,016***
TOTAL	**390**	**390**			**$429,135**

The proposed staffing integration plan, if implemented in a single year with no position reductions, results in an increase in the overall consolidated budget of approximately $429,135 in the baseline year. This has an impact of an additional $0.0315 per thousand to the modeled 2006 operating rate, bringing the model budget rate to an estimated $ 2.1774 per thousand dollars AV. To summarize this modeled baseline budget:

- The combined 2006 assessed value of all three jurisdictions is $13,618,475,181
- The combined 2006 operating budgets for the three jurisdictions is $29,223,565
- The combined 2006 model levy rate is $ 2.1459
- The single year cost of consolidating all personnel in the ESCi model is $429,135
- Adding that impact to the 2006 combined model budget brings the total to $29,652,700
- The combined 2006 model levy rate with the added personnel costs would be $2.1774

This is a model to measure current and potential combined costs based upon the operating budgets of the three agencies against their assessed property value. However, the reader must take into account a fairly significant amount of non-tax revenue and other economies that occur as a result of consolidation that are not reflected in this model.

The success of any of the strategic financial alternatives hangs on the resolution of a number of important details. ESCi summarized the issues that should be addressed prior to (or during) the implementation of each alternative in the description of options in this report. Although some challenges are complex matters, none are considered a fatal flaw of the option. ESCi is confident that the diligence of the fire department staff and political leadership will overcome all of the negative issues.

Financial Result of Integration Forecast to Year 2025

In addition to calculating the immediate financial outcome of the Kitsap fire agencies' unification, it is also important to understand the probable financial consequence of the action over the long term. To help gain that understanding, the consolidation model was computed for each year through 2025. The algorithms of the model should adjust the staffing, emergency equipment, and facility parameters in accordance with the aforementioned financial assumptions for each forecast year. Modifiers within the model maintain line item allocations for the subject year relative to the allocations for the baseline year. The model provides measurement of expenditure increases based on established standards of coverage and the projected workload of the combined agencies. Any changes of upgrades in standards of coverage or deployment will change the assumptions in either direction.

Additionally, this model reflects the projected changes in revenue anticipated by the continued rapid growth and the frequency with which the combined agency lifts its property tax levy lid. ESCi strongly recommends that until the state legislature makes a responsible change to the tax limitation criteria, larger fire districts should follow the model of other agencies in the Puget Sound region by establishing a pattern of 'lifting the lid' each year to match their revenues to the increasing workload, demands, and cost growth. Annual lid lifts would allow the consolidated property tax revenue in the newly consolidated fire district to grow financially by approximately 13 percent per year. Extending out the decision to 'lift the lid' beyond a yearly or every-other-year basis also increases the chance of taxpayer disfavor as the newly consolidated fire district's levy rate will fall by at least 11 percent per year. This often makes the jump back to the authorized amount of $1.50 per thousand more ominous than smaller annual readjustments.

The integration of the Kitsap County fire agencies takes advantage of the combined administrative and support capability of SKFR and CKFR by shifting the capacity and cost over a larger service area. An increase of administrative resources gives the project jurisdictions the ability to plan, and importantly, to execute plans for better emergency service.

After integration, the following organizational changes could be considered:

- All of the existing administrative services such as administrative oversight, budgeting, bookkeeping, auditing, loss management, human resource management, and policy development and control extend to everyone.

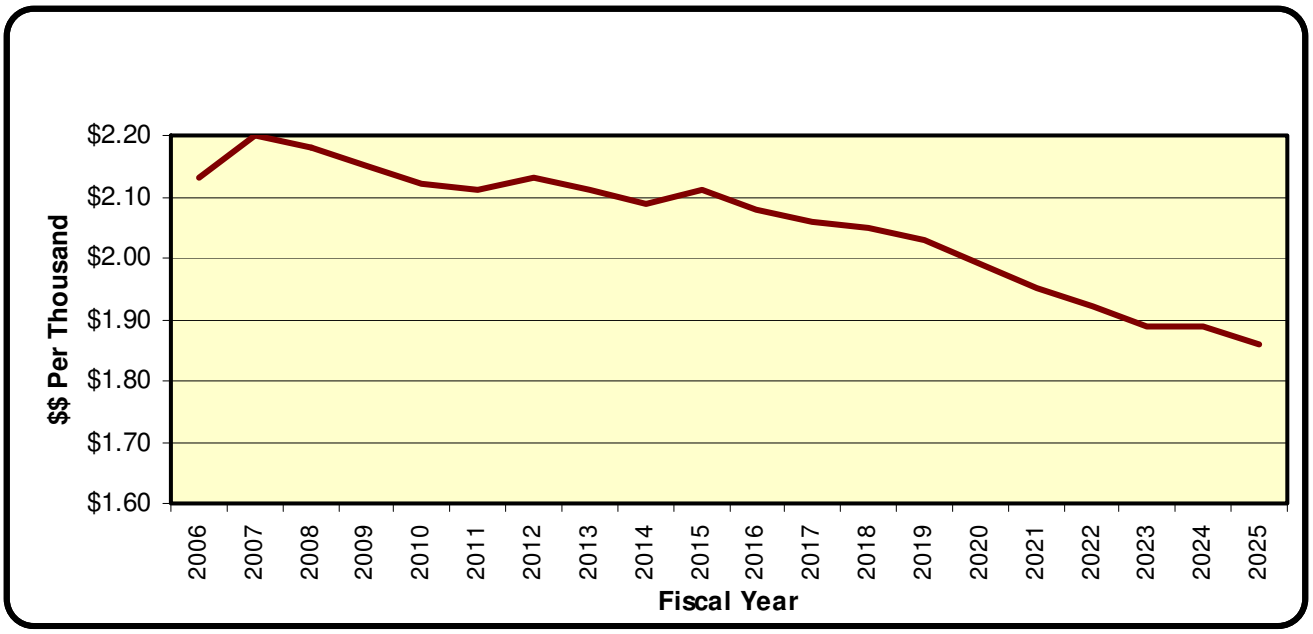
- All of the existing BFD, CKFR, and SKFR administrative programs that support emergency response improve and apply across the new service area. Such services include improved fire training, fire prevention, fire investigation, and public education.

- Immediately following integration, the three on-duty battalion chiefs are available for combined command response in the central/south Kitsap service area. This is enhanced by the addition of the other executive chief officers sharing the back-up role as well. The assurance of 'overhead' command staff response to multi-unit alarms improves the safety and effectiveness of firefighters and provides unity of command between multi-agency fire, EMS, local government, law enforcement, and civilian forces.

- The availability of response-ready and reserve equipment resources of Kitsap agencies extends across the entire post-integration service area.

Up to this point, the financial outcome of the proposed consolidation was presented from the view of each of the existing departments. After integration however, a single new agency serves the entirety of the unified response area. It is reasonable, therefore, to forecast the cumulative levy rate/savings of the recommended option as shown in Figure 103. Increases in revenue growth and decreases in programmed costs (after the initial spike in transition costs) have been programmed into the projected model.

Figure 103: – Cumulative Budget Levy Rate/Savings - 2006 through 2025



The long-term financial outcome of the proposed consolidation demonstrates that the baseline year and several years beyond indicate a temporary increase in operating costs due to absorbing and bringing

Kitsap agency staff levels up to even compensation rates. Additionally, it assumes that there are associated one-time costs in standardizing and upgrading facilities, equipment, and operations to provide for more efficiency. By year 2010, the model shows that overall budget levy rate would be begin to decline as the combined AV grows and economies of scale are fully experienced. A financial model built upon an annual levy lid lift or an integration model that included alternative funding sources as in a regional fire authority would provide dramatic results quite contrasting to this baseline model.

Recommended Action

First steps are important. If the leadership and governing boards of the Kitsap County fire departments support and endorse the conclusions of this report, policy action by officials must focus the efforts of many persons toward the goal of *merger*. Without clear direction from policymakers, indecisive or counter-productive work is likely to result. It is also important that the region's other fire agencies share in the planning and steps that follow the adoption of the goal. If all stakeholder groups actively participate in the process, the need for work plan revisions are more easily identified and made to reach the goal.

ESCi recommends that the SKFR and CKFR Boards of Commissioners and the city of Bremerton jointly adopt (through either resolution or ordinance) *a full integration or the formation of a Regional Fire Authority* as the **Kitsap County Fire and EMS Vision**. The jurisdictions should resolve to work cooperatively toward carrying out the goal within a specific established timeframe. ESCi suggests the goal be targeted far enough in the future to allow for systematic planning and implementation, but not so far as to lose project momentum. From experience in such matters, 24 to 36 months is usually considered a reasonable amount of time required for planning and implementing the recommended option.

Because the Kitsap County agencies already have numerous cooperative programs at varying levels between the agencies, and it is apparent that there is synergy and good communications between the leadership groups already, many of the initializing hurdles to a cooperative concept have already been crossed and early successes are already in place. Therefore, the timing of the recommended merger could be moved up and cooperative and consolidated programs can be expedited after policy-maker decisions.

Once a regional vision is adopted, the agencies should appoint a steering committee that includes representation from all stakeholder groups to plan, communicate, oversee, and direct progress toward consolidation and full merger. The committee should be charged to meet regularly and often to discuss

issues of mutual concern regarding the regional vision. The group should work to provide cohesive policy direction to the fire department leadership and others regarding the details of reaching the regional vision. Activities of the committee might include consultation with staff, other policy makers, or professional experts. In addition, the committee should consider proposals and choose a unified course of action.

Legal Issues

ESCi emphasizes that its team members are not qualified to give legal advice; any discussion concerning statutory issues must be viewed in that light. ESCi *does* offer a grasp on the cited statutes below and some of the matters surrounding them, but we make no representation that we have consulted relevant law or that our interpretation of the law is necessarily correct. The project fire departments should consult with legal professionals experienced in public and employment law before embarking on any consolidation strategy.

Governance

Should a legal merger be chosen as the form of integration, the city of Bremerton would ultimately have to annex into a fire district and the two fire districts would have to formally merge. The Board of Fire Commissioners of the newly merged fire district (including the city of Bremerton) would consist of all of the original, seated fire commissioners of the two districts. The board will be reduced to five commissioners over the next three fire commissioner elections; as a term in each of the two predecessor districts expires, only one fire commissioner would be elected.

Should a Regional Fire Authority (RFA) model be the preference, the RFA Planning Committee would be formed with three elected officials from each of the three entities. They are specifically tasked to develop an RFA Plan which would identify all of the aspects –political, administrative, executive, operational, support, and financial – of how the new fire authority would be formed and operated. In this case, the RFA Plan (as dictated by the planning committee) expresses the number of representatives that each of the entities would have on the RFA Governance Board if the Regional Fire Authority Plan is approved by the voters and all three agencies are transferred to the newly formed agency.

Framework for Action

ESCi provides an outline of major action steps necessary to reach the Kitsap County Fire and EMS Vision. The fire district boards and (when appointed) the vision steering committee can use this framework as a general guide, but the parties should also be prepared to adapt the plan as work progresses and new issues become evident. Some action steps overlap in sequencing, or are ongoing;

other steps may be dependent on the successful completion of previous work. As with any work of this nature, the plan should be continuously reviewed and revised as necessary.

Process for Reaching a Kitsap County Fire/EMS Vision

- **Joint Adoption of a Kitsap County Fire and EMS Vision**. The CKFR/SKFR Boards of Commissioners and the city of Bremerton should formally adopt a Consolidated Fire and EMS Vision. Such action includes the appointment, charge, and timeline goal for a Fire and EMS Vision steering committee.
- **Organize the steering committee.** The elected representatives should instruct the committee to formulate and report on all elements of a consolidation/merger plan, establish leadership roles of the chair and other committee members, create meeting guidelines, elect leadership, set meeting dates and times, and review and adopt the work plan. Meetings are ongoing, as is the review and revision of the work plan. The committee serves as a clearinghouse for all information concerning the effort so that service partners speak with a unified voice.
- **Obtain definitive legal advice.** The steering committee should obtain a legal opinion concerning the statutory requirements of RCW 52.06 or RCW 52.26 for the merger or fire authority. At a minimum, the agencies should determine the following: 1) which method of merger the fire districts desire[51]; 2) transfer of employees and members; and, 3) how the timing of an election may influence the finance and taxation systems of the districts.
- **Define the proposed consolidated service area.** Obtain a metes and bounds or other sufficient legal description of the existing districts and of the proposed service area.
- **Establish the name of the proposed consolidated district.** Obtain consensus on the name, logo, mission, vision, values, and organizational structure of the proposed consolidated district.
- **Prepare for the election.** A public education and information campaign needs to be prepared and ready for delivery promptly after a merger model and plan is selected.
- **Deliver the public education/information campaign**. During the time between the adoption of resolutions and the election, voters must be provided with information regarding the consolidation and its benefit to the emergency service system.
- **Election is held.** Get out the vote.
- **Inventory and transfer assets.** Capital assets and employees of the former departments are transferred to the consolidated agency.
- **Seating of the consolidated elected officials.** The board meets to elect officers, adopt supporting documentation, and receive capital assets and employees.
- **Implement a strategic planning process**. The consolidated governance board oversees the development of a facility site plan, equipment replacement plan, and a staffing plan for the consolidated agency. Investigate and include in the plans collaborative opportunities for joint facilities, equipment, staffing, or operations with other fire protection agencies.

[51] Under Washington State law, merging fire district may choose either the *petition* method or the *election* method. ESCi recommends the use of the *election* method as the petition method is quite complicated and labor intensive.

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Report Summary

Since the early part of the 1960's, the Kitsap fire service leadership has declared the strength in the large scale consolidation of fire resources and emergency services while following through with numerous mergers to strengthen its assistance to the public and capitalize on the strengths of the participating agencies.

Both Central Kitsap Fire & Rescue and South Kitsap Fire & Rescue are products of numerous mergers and consolidations—each of which enhanced the service and purpose of the fire districts. With rampant growth outside of the Bremerton area, the rural population and rural fire service has grown exponentially and professionally along with the increase in economy and population. For years, the Bremerton Fire Department was the only career fire department on the peninsula. Now both CKFR and SKFR are large organizations with diverse resources. Tax levy rates, budgets, and compensation packages have equalized. These are all key factors considered in the course of this analysis.

The three entities have also provided a roadmap to others in terms of operational cooperation. All three agencies belong to the countywide dispatch system (CENCOM). Additionally, all three agencies have consolidated their training programs and built a remarkable joint training facility with unified training and training standards. Auto-aid, mutual aid, and a developing 'dropped borders' doctrine further remove barriers and improve inter-operability in advance of a consolidation effort.

Lastly, the Kitsap labor groups and the chief officers of CKFR, SKFR, and BFD have chosen a path of good communication and unity by meeting regularly for a period of years.

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APPENDICES

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Appendix A: Washington Surveying & Rating Bureau

A WSRB field representative visits each district or department on a rotating basis or as major changes take place. Organizational and community areas considered during an evaluation are:

- Personnel
    - Training - How many hours are spent training and are the skills worked on applicable?
    - Are the fire stations properly and fully staffed?
- Equipment
    - Is the equipment modern, in a good state of maintenance?
    - Is the equipment appropriate for the structures to be protected?
    - Is there enough equipment?
- Location- Are the fire stations located so that they are within 5 miles of structures to be protected and logically placed so that they can respond quickly?
- Water supplies- No fire can be fought without enough water. Does the district have sufficient water available through hydrant systems or tankers to meet the required fire flow demands? These water supplies must also be reliable. A pond, swimming pool or stream, for example, that freezes over in the winter is not useful.

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Appendix B: Center for Public Safety Excellence Accreditation

In today's world, many local governmental executives are being increasingly pressured to justify any increase in expenditures unless they are attributed directly to improved or expanded service delivery in the community. More than ever before, these local leaders are faced with the constant pressure of doing more work with less funding.

The CPSE program establishes industry-wide benchmarks for management and overall organizational performance. The accreditation model is comprised of categories fire agencies use to evaluate their performance. The categories include:

- Governance and Administration
- Assessment and Planning Goals and Objectives
- Financial Resources Programs
- Physical Resources
- Human Resources
- Training and Competency
- Essential Resources
- External Systems Relations

Within each category is extensive criteria requirements which include a *measure* or *index* upon which a judgment or division is based. Each criterion includes performance indicators that define the desired level of ability to demonstrate a particular task as specified in the accreditation process. The model includes a comprehensive research and information collection guide that includes checklists, exhibits, benchmarks, references, and activities broken down by category. In addition, several appendices necessary for the accreditation process have been developed to address topics including defining the elements of response time, creating standards of response coverage, and developing master or strategic plans. All in all, the accreditation program is a very exhaustive, extensive, and labor intensive process for any agency to accomplish, and few are able to satisfactorily meet the rigor and standards.

Because of the stringent and intense requirements for any fire agency to be able to gain accreditation, it is no wonder that many modern fire departments simply do not have the resources or strength to accomplish the rigors of attaining this honor.

Appendix C: Kitsap County Agencies – Comparison Tables

Figure 104: – BFD Executive Compensation

BFD Executive Positions	Chief	Ass't Chief	Batt Chief	Captain
Number of FTE per Position	1	1	1	1
2006 Base Salary	$9,392.00	$7,709.00	7516.32	7120.00
Paramedic Premium pay				
Specialist Premium pay				
Longevity Premium pay				
Education Attainment Premium pay				
Shift Differential pay				
Holiday pay (in lieu of hours)				
Deferred Comp (Involuntary)	375.68	308.36		
Subtotal -- Salary/Premium Pay	**$ 9,767.68**	**$ 8,017.36**	**$ 7,516.32**	**$ 7,120.00**
Retirement	478.62	152.33	368.30	348.88
Total Pay Package	**$ 10,246.30**	**$ 8,169.69**	**$ 7,884.62**	**$ 7,468.88**
Med/Dent Insurance	951.25	1006.16	724.00	1022.00
Life Insurance				
Disability Insurance			25.00	25.00
Clothing or Cleaning Allowance			20.83	20.83
Employee Assistance Program				
Medical Retirement Plan				
Employment Security				
Education Incentive				
Deferred Comp -- (voluntary or match)			263.07	249.20
FICA -- Social Security (6.2%)	0.00	0.00	0.00	0.00
FICA -- Medicare (1.45%)	0.00	0.00	0.00	0.00
Labor & Industries	68.85	0.00	87.00	87.00
Total Benefit Package	**$ 1,020.10**	**$ 1,006.16**	**$ 1,119.90**	**$ 1,404.03**
Total Compensation	**$ 10,787.78**	**$ 9,023.52**	**$ 8,636.22**	**$ 8,524.03**
Gross Annual Hours	**2080.00**	**2080.00**	**2080.00**	**2080.00**
Kelly Time - total annual hrs	0.00	0.00	0.00	0.00
Sick Leave - total annual hrs	96.00	96.00	96.00	96.00
Vacation - total annual hrs	200.00	200.00	208.00	208.00
Holidays - total annual hrs	88.00	88.00	88.00	88.00
Net Annual Hours	**1696.00**	**1696.00**	**1688.00**	**1688.00**
Work Week -- average hrs	**32.62**	**32.62**	**32.46**	**32.46**
TCC Hour	$ 76.33	$ 63.85	61.39	60.60
TCC Month	$ 10,787.78	$ 9,023.52	$ 8,636.22	$ 8,524.03
TCC Annual	$129,453.36	$108,282.24	$103,634.64	$ 102,288.36
AGENCY TOTAL	**$129,453.36**	**$108,282.24**	**$103,634.64**	**$ 102,288.36**

Figure 105: – BFD Administrative Compensation

BFD Administrative Positions	Off As II	Off As Sr	Captain/FM	Inspectors
Number of FTE per Position	1	1	1	2
2006 Base Salary	2674.50	3628.58	7120.86	6032.36
Specialist Premium pay				
Longevity Premium pay				
Education Attainment Premium pay				
Holiday pay (in lieu of hours)				
Deferred Comp -- (Involuntary)				
Subtotal -- Salary/Premium Pay	**$ 2,674.50**	**$ 3,628.58**	**$ 7,120.86**	**$ 6,032.36**
RETIREMENT	81.97	111.22	135.30	270.25
Total Pay Package	**$ 2,756.47**	**$ 3,739.80**	**$ 7,256.16**	**$ 6,302.61**
Med/Dent Insurance	364.67	567.25	853.58	1022.00
Life Insurance				
Disability Insurance			25.00	25.00
Clothing or Cleaning allowance			20.83	20.83
Employee Assistance Program				
Medical Retirement Plan				
Employment Security				
Education Incentive				
Deferred Comp- (Voluntary or match)			249.23	211.13
FICA -- Social Security (6.2%)	170.90	231.87	0.00	390.76
FICA -- Medicare (1.45%)	39.97	54.23	0.00	91.39
Labor & Industries	18.58	18.58	87.00	87.00
Total Benefit Package	**$ 594.12**	**$ 871.92**	**$ 1,235.64**	**$ 1,848.11**
Total Compensation	**$ 3,268.62**	**$ 4,500.50**	**$ 8,356.50**	**$ 7,880.47**
Gross Annual Hours	**2080.00**	**2080.00**	**2080.00**	**2080.00**
Sick Leave - total annual hrs	96.00	96.00	96.00	96.00
Vacation - total annual hrs	104.00	208.00	208.00	208.00
Holidays - total annual hrs	80.00	80.00	88.00	88.00
Net Annual Hours	**1800.00**	**1696.00**	**1688.00**	**1688.00**
Work Week -- average hrs	**34.62**	**32.62**	**32.46**	**32.46**
TCC Hour	$ 21.79	$ 31.84	$ 59.41	$ 56.02
TCC Month	$ 3,268.62	$ 4,500.50	$ 8,356.50	$ 7,880.47
TCC Annual	$ 39,223.44	$ 54,006.05	$100,278.00	$ 94,565.67
AGENCY TOTAL	**$ 39,223.44**	**$ 54,006.05**	**$100,278.00**	**$189,131.33**

Figure 106: – BFD Operations Compensation

BFD Operations Positions	Prob FF	FF 4th Class	FF 3rd Class	FF 2nd Class	FF 1st Class	SCBA/Mech	Pm/Prevention	Lieut	Captain
Number of FTE per Position	0	4	2	2	5	6	15	12	3
2006 Base Salary	3753.48	4021.58	4557.36	4825.90	5362.10	5362.10	5496.16	6320.58	7120.86
Paramedic Premium pay									
Specialist Premium pay						670.26	687.00		
Longevity Premium pay									
Education Attainment Premium pay									
Shift Differential pay									
Holiday pay (in lieu of hours)	215.72	231.13	261.92	277.35	308.17	308.17	315.87	363.25	409.24
Deferred Comp (Involuntary)									
Subtotal -- Salary/Premium Pay	**$ 3,969.20**	**$ 4,252.71**	**$ 4,819.28**	**$ 5,103.25**	**$ 5,670.27**	**$ 6,340.53**	**$ 6,499.03**	**$ 6,683.83**	**$ 7,530.10**
Retirement	183.92	197.06	223.31	236.47	262.74	262.74	269.31	309.71	348.92
Total Pay Package	**$ 4,153.12**	**$ 4,449.76**	**$ 5,042.59**	**$ 5,339.72**	**$ 5,933.01**	**$ 6,603.27**	**$ 6,768.34**	**$ 6,993.54**	**$ 7,879.03**
Med/Dent Insurance	371.41	724.00	914.41	1022.00	1022.00	1022.00	1022.00	1022.00	1022.00
Life Insurance									
Disability Insurance	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Clothing or Cleaning allowance	20.83	20.83	20.83	20.83	20.83	20.83	20.83	20.83	20.83
Employee Assistance Program									
Medical Retirement Plan									
Employment Security									
Education Incentive									
Deferred Comp- (Voluntary or match)	131.37	140.76	159.51	168.91	187.67	187.67	192.37	221.22	249.23
FICA -- Social Security (6.2%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FICA -- Medicare (1.45%)	60.22	64.52	73.12	77.43	86.03	95.75	98.14	101.41	114.25
Labor & Industries	87.00	87.00	87.00	87.00	87.00	87.00	87.00	87.00	87.00
Total Benefit Package	**$ 695.83**	**$ 1,062.11**	**$ 1,279.87**	**$ 1,401.16**	**$ 1,428.53**	**$ 1,438.25**	**$ 1,445.34**	**$ 1,477.46**	**$ 1,518.31**
Total Compensation	**$ 4,665.03**	**$ 5,314.81**	**$ 6,099.14**	**$ 6,504.41**	**$ 7,098.80**	**$ 7,778.78**	**$ 7,944.37**	**$ 8,161.29**	**$ 9,048.41**
Gross Annual Hours	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**
Kelly Time - total annual hrs	288.00	288.00	288.00	288.00	288.00	288.00	288.00	288.00	288.00
Sick Leave - total annual hrs	240.00	240.00	240.00	240.00	240.00	240.00	240.00	240.00	240.00
Vacation - total annual hrs	192.00	192.00	192.00	192.00	192.00	192.00	264.00	264.00	294.00
Holidays - total annual hrs									
Net Annual Hours	**2200.00**	**2200.00**	**2200.00**	**2200.00**	**2200.00**	**2200.00**	**2128.00**	**2128.00**	**2098.00**
Work Week -- average hrs	**42.31**	**42.31**	**42.31**	**42.31**	**42.31**	**42.31**	**40.92**	**40.92**	**40.35**
TCC Hour	$ 25.45	$ 28.99	$ 33.27	$ 35.48	$ 38.72	$ 42.43	$ 44.80	$ 46.02	$ 51.75
TCC Month	$ 4,665.03	$ 5,314.81	$ 6,099.14	$ 6,504.41	$ 7,098.80	$ 7,778.78	$ 7,944.37	$ 8,161.29	$ 9,048.41
TCC Annual	$ 55,980.35	$ 63,777.75	$ 73,189.71	$ 78,052.96	$ 85,185.59	$ 93,345.33	$ 95,332.41	$ 97,935.46	$ 108,580.93
AGENCY TOTAL	**$ -**	**$ 255,110.98**	**$ 146,379.42**	**$ 156,105.91**	**$ 425,927.93**	**$ 560,071.99**	**$ 1,429,986.21**	**$1,175,225.52**	**$ 325,742.79**

Figure 107: – CKFR Executive (LEOFF 2) Compensation

CKFR Executive Positions	Chief	Asst. Chief	Division Chief	Batt Chief
Number of FTE per Position	1	2	1	1
2006 Base Salary	$9,739.65	$8,663.44	$7,641.05	$7,318.19
Specialist Premium pay	0.00	0.00	0.00	0.00
Longevity Premium pay	0.00	382.00	382.00	219.55
Education Attainment Premium pay	0.00	0.00	150.00	125.00
Holiday pay (in lieu of hours)	0.00	0.00	0.00	270.24
Deferred Comp -- (Involuntary)	600.00	400.00	350.00	0.00
Subtotal -- Salary/Premium Pay	**$10,339.65**	**$9,445.44**	**$8,523.05**	**$7,932.98**
Retirement: LEOFF 2 = 4.90%	506.64	462.83	417.63	388.72
Total Pay Package	**$10,846.29**	**$9,908.27**	**$8,940.68**	**$8,321.70**
Med/Dent Insurance	1014.10	1055.00	1055.00	1267.90
Life Insurance	3.60	3.60	3.60	1.80
Disability Insurance	71.00	71.00	70.00	0.00
Clothing or Cleaning allowance	75.00	60.00	0.00	0.00
Employee Assistance Program	1.90	1.90	1.90	1.90
Medical Retirement Plan	0.00	0.00	0.00	0.00
Employment Security	0.00	0.00	0.00	0.00
Education Incentive	83.33	83.33	83.33	83.33
Deferred Comp- (Voluntary or match)	0.00	0.00	0.00	300.00
FICA -- Social Security (6.2%)	0.00	0.00	0.00	0.00
FICA -- Medicare (1.45%)	157.27	143.67	129.64	120.66
Labor & Industries = .7830	125.28	125.28	125.28	125.28
Total Benefit Package	**$1,531.48**	**$1,543.78**	**$1,468.75**	**$1,900.87**
Total Compensation	**$11,871.13**	**$10,989.22**	**$9,991.80**	**$9,833.85**
Gross Annual Hours	**2080.00**	**2080.00**	**2080.00**	**2080.00**
Sick Leave - total annual hrs	144.00	144.00	144.00	144.00
Vacation - total annual hrs	200.00	200.00	200.00	160.00
Holidays - total annual hrs (11 days)	88.00	88.00	88.00	88.00
Net Annual Hours	**1648.00**	**1648.00**	**1648.00**	**1688.00**
Work Week -- average hrs	**31.69**	**31.69**	**31.69**	**32.46**
TCC Hour	$86.44	$80.02	$72.76	$69.91
TCC Month	$11,871.13	$10,989.22	$9,991.80	$9,833.85
TCC Annual	$142,453.57	$131,870.64	$119,901.60	$118,006.26
AGENCY TOTAL	**$142,453.57**	**$263,741.28**	**$119,901.60**	**$118,006.26**

Figure 108: – CKFR Administrative (PERS) Compensation

CKFR Administrative Positions	Admin/IT Service Manager	Fiscal/HR Service Manager	Staff Asst.	Office Asst.	Pub Ed/PIO	Inspector	*Mechanic Super.	*Mechanics	*Central Supply	*Facility RM
Number of FTE per Position	**1**	**1**	**4**	**2**	**1**	**2**	**1**	**2**	**1**	**1**
2006 Base Salary	$5,972.93	$5,972.93	$4,573.87	$2,582.89	$5,273.40	$5,165.78	$5,811.50	$4,789.11	$4,304.82	$4,896.73
Specialist Premium pay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Longevity Premium pay	238.92	179.19	137.22	0.00	0.00	0.00	174.35	143.67	129.14	0.00
Education Attainment Premium pay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Holiday pay (in lieu of hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Deferred Comp -- (Involuntary)	400.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal -- Salary/Premium Pay	**$6,611.85**	**$6,552.12**	**$4,711.09**	**$2,582.89**	**$5,273.40**	**$5,165.78**	**$5,985.85**	**$4,932.78**	**$4,433.96**	**$4,896.73**
Retirement=PERS 3.69%	243.98	241.77	173.84	95.31	194.59	190.62	220.88	182.02	163.61	180.69
Total Pay Package	**$6,855.82**	**$6,793.89**	**$4,884.93**	**$2,678.20**	**$5,467.99**	**$5,356.40**	**$6,206.72**	**$5,114.80**	**$4,597.58**	**$5,077.42**
Med/Dent Insurance	1014.00	1014.00	1055.00	1055.00	1143.00	1055.00	1401.85	1055.00	1055.00	1055.00
Life Insurance	3.60	3.60	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
Disability Insurance	60.00	60.00	47.00	34.00	52.00	51.00	59.00	50.00	45.00	52.00
Clothing or Cleaning allowance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Employee Assistance Program	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90
Medical Retirement Plan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Employment Security	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Education Incentive	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Deferred Comp- (Voluntary or match)	0.00	0.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00
FICA -- Social Security (6.2%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FICA -- Medicare (1.45%)	**99.41**	**98.51**	**70.83**	**38.83**	**79.29**	**77.67**	**90.00**	**74.16**	**66.66**	**73.62**
Labor & Industries = **.1738/ *1.0749**	**27.81**	**27.81**	**27.81**	**27.81**	**27.81**	**27.81**	**171.98**	**171.98**	**171.98**	**171.98**
Total Benefit Package	**$1,206.72**	**$1,205.82**	**$1,504.34**	**$1,459.34**	**$1,605.80**	**$1,515.18**	**$2,026.53**	**$1,654.84**	**$1,642.34**	**$1,656.30**
Total Compensation	**$7,818.57**	**$7,757.94**	**$6,215.43**	**$4,042.23**	**$6,879.20**	**$6,680.96**	**$8,012.37**	**$6,587.63**	**$6,076.31**	**$6,553.03**
Gross Annual Hours	**2080.00**	**2080.00**	**2080.00**	**2080.00**	**2080.00**	**2080.00**	**2080.00**	**2080.00**	**2080.00**	**2080.00**
Sick Leave - total annual hrs	144.00	144.00	144.00	144.00	144.00	144.00	144.00	144.00	144.00	144.00
Vacation - total annual hrs	200.00	200.00	160.00	120.00	120.00	120.00	200.00	160.00	160.00	120.00
Holidays - total annual hrs (11 days)	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00	88.00
Net Annual Hours	**1648.00**	**1648.00**	**1688.00**	**1728.00**	**1728.00**	**1728.00**	**1648.00**	**1688.00**	**1688.00**	**1728.00**
Work Week -- average hrs	**31.69**	**31.69**	**32.46**	**33.23**	**33.23**	**33.23**	**31.69**	**32.46**	**32.46**	**33.23**
TCC Hour	$56.93	$56.49	$44.19	$28.07	$47.77	$46.40	$58.34	$46.83	$43.20	$45.51
TCC Month	$7,818.57	$7,757.94	$6,215.43	$4,042.23	$6,879.20	$6,680.96	$8,012.37	$6,587.63	$6,076.31	$6,553.03
TCC Annual	$93,822.80	$93,095.27	$74,585.13	$48,506.81	$82,550.35	$80,171.49	$96,148.47	$79,051.54	$72,915.71	$78,636.39
AGENCY TOTAL	$93,822.80	$93,095.27	$298,340.52	$97,013.61	$82,550.35	$160,342.99	$96,148.47	$158,103.07	$72,915.71	$78,636.39

Figure 109: – CKFR Operations Compensation

CKFR Operations	Prob FF	FF 3rd Class	FF/PM 3rd Class	FF 2nd Class	FF/PM 2nd Class	FF 1st Class	FF/PM 1st Class	Lieut	Captain	Batt Chief
Number of FTE per Position [	1	3	1	7	3	21	15	8	4	3
2006 Base Salary	$3,766.71	$4,304.82	$4,735.30	$4,842.92	$5,327.21	$5,381.02	$5,919.12	$6,026.74	$6,672.46	$7,318.19
Paramedic Premium pay 10%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Specialist Premium pay = none	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Longevity Premium pay	0.00	0.00	0.00	0.00	0.00	53.81	53.81	120.53	200.17	219.55
Education Attainment Premium pay	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Shift Differential pay	28.76	28.76	28.76	28.76	28.76	0.00	0.00	0.00	0.00	0.00
Holiday pay (in lieu of hours)	0.00	158.96	174.88	178.80	196.72	198.72	218.56	222.56	246.40	270.24
Deferred Comp -- (Involuntary)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal -- Salary/Premium Pay	**$3,895.47**	**$4,592.54**	**$5,038.94**	**$5,150.48**	**$5,652.69**	**$5,733.55**	**$6,291.49**	**$6,469.83**	**$7,219.03**	**$7,907.98**
Retirement: LEOFF 2 = 4.90%	190.88	225.03	246.91	252.37	276.98	280.94	308.28	317.02	353.73	387.49
Total Pay Package	**$4,086.35**	**$4,817.57**	**$5,285.85**	**$5,402.85**	**$5,929.67**	**$6,014.49**	**$6,599.78**	**$6,786.85**	**$7,572.76**	**$8,295.47**
Med/Dent Insurance	1266.00	1266.00	1266.00	1266.00	1266.00	1266.00	1266.00	1266.00	1266.00	1266.00
Life Insurance	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
Disability Insurance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Clothing or Cleaning allowance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Employee Assistance Program	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90
Medical Retirement Plan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Employment Security	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Education Incentive	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33
Deferred Comp- (Voluntary or match)	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00
FICA -- Social Security (6.2%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FICA -- Medicare (1.45%)	59.25	69.85	76.64	78.34	85.98	87.21	95.70	98.41	109.81	120.28
Labor & Industries = .7830	125.28	125.28	125.28	125.28	125.28	125.28	125.28	125.28	125.28	125.28
Total Benefit Package	**$1,837.56**	**$1,848.16**	**$1,854.95**	**$1,856.65**	**$1,864.29**	**$1,865.52**	**$1,874.01**	**$1,876.72**	**$1,888.12**	**$1,898.59**
Total Compensation	**$5,733.03**	**$6,440.70**	**$6,893.90**	**$7,007.13**	**$7,516.98**	**$7,599.07**	**$8,165.50**	**$8,346.55**	**$9,107.15**	**$9,806.57**
Gross Annual Hours	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**
Kelly Time - total annual hrs	312.00	312.00	312.00	312.00	312.00	312.00	312.00	312.00	312.00	312.00
Sick Leave - total annual hrs	144.00	144.00	144.00	144.00	144.00	144.00	144.00	144.00	144.00	144.00
Vacation - total annual hrs	120.00	120.00	120.00	144.00	144.00	192.00	192.00	216.00	228.00	240.00
Holidays - total ann hrs	96.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Annual Hours	**2248.00**	**2344.00**	**2344.00**	**2320.00**	**2320.00**	**2272.00**	**2272.00**	**2248.00**	**2236.00**	**2224.00**
Work Week -- average hrs	**43.23**	**45.08**	**45.08**	**44.62**	**44.62**	**43.69**	**43.69**	**43.23**	**43.00**	**42.77**
TCC Hour	$30.60	$32.97	$35.29	$36.24	$38.88	$40.14	$43.13	$44.55	$48.88	$52.91
TCC Month	$5,733.03	$6,440.70	$6,893.90	$7,007.13	$7,516.98	$7,599.07	$8,165.50	$8,346.55	$9,107.15	$9,806.57
TCC Annual	$68,796.38	$77,288.46	$82,726.76	$84,085.58	$90,203.79	$91,188.84	$97,985.98	$100,158.59	$109,285.74	$117,678.89
AGENCY TOTAL	**$68,796.38**	**$231,865.37**	**$82,726.76**	**$588,599.04**	**$270,611.36**	**$1,914,965.68**	**$1,469,789.77**	**$801,268.74**	**$437,142.96**	**$353,036.68**

Figure 110: – SKFR Executive Compensation

SKFR Executive Positions	Chief	Dep Chief	Batt Chief-Day
Number of FTE per Position	1	1	2
2006 Base Salary	$ 8,952.00	$ 8,382.00	$ 6,951.00
Paramedic Premium pay	0.00	0.00	0.00
Specialist Premium pay	0.00	0.00	0.00
Longevity Premium pay	0.00	0.00	0.00
Education Attainment Premium pay	0.00	0.00	382.31
Shift Differential pay	0.00	0.00	695.10
Holiday pay (in lieu of hours)	0.00	0.00	
Deferred Comp -- (Involuntary)	0.00	0.00	0.00
Subtotal -- Salary/Premium Pay	**$ 8,952.00**	**$ 8,382.00**	**$ 8,028.41**
Retirement- LEOFF (4.90%)	438.65	410.72	393.39
Total Pay Package	**$ 9,390.65**	**$ 8,792.72**	**$ 8,421.80**
Med/Dent Insurance	1042.00	1042.00	946.00
Life Insurance	1.84	1.84	1.84
Disability Insurance	46.55	43.59	3.94
Clothing or Cleaning allowance	29.00	29.00	29.00
Employee Assistance Program	1.58	1.58	1.58
Medical Retirement Plan	450.00	450.00	450.00
Employment Security	0.00	0.00	0.00
Education Incentive	0.00	0.00	0.00
Deferred Comp- (Voluntary or match)	277.77	277.77	277.77
FICA -- Social Security (6.2%)	0.00	0.00	0.00
FICA -- Medicare (1.45%)	136.16	127.49	122.12
Labor & Industries (.54705)	87.53	87.53	87.53
Total Benefit Package	**$ 2,072.43**	**$ 2,060.80**	**$ 1,919.77**
Total Compensation	**$ 11,024.43**	**$ 10,442.80**	**$ 9,948.18**
Gross Annual Hours	**2080.00**	**2080.00**	**2080.00**
Kelly Time - total annual hrs	0.00	0.00	0.00
Sick Leave - total annual hrs	120.00	120.00	108.00
Vacation - total annual hrs	240.00	240.00	240.00
Holidays - total annual hrs	96.00	96.00	96.00
Net Annual Hours	**1624.00**	**1624.00**	**1636.00**
Work Week -- average hrs	**31.23**	**31.23**	**31.46**
TCC Hour	$81.46	$77.16	$72.97
TCC Month	$11,024.43	$10,442.80	$9,948.18
TCC Annual	$132,293.19	$125,313.63	$119,378.21
AGENCY TOTAL	**$132,293.19**	**$125,313.63**	**$238,756.42**

Figure 111: – SKFR Administrative Compensation

SKFR Administrative Positions	Fleet Mgr	Mechanics	Facilities Mgr	Maintenance	Adm Svs Mgr	Acct/Amb	Secretary	Comp Tech
Number of FTE per Position	1	2	1	1	1	2	3	1
2006 Base Salary	$4,815.00	$4,021.00	$4,570.00	$2,595.00	$4,698.00	$3,187.00	$2,870.00	$4,571.00
Specialist Premium pay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Longevity Premium pay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Education Attainment Premium pay	240.75	201.05	0.00	0.00	352.35	159.35	71.75	0.00
Holiday pay (in lieu of hours)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Deferred Comp -- (Involuntary)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal -- Salary/Premium Pay	**$ 5,055.75**	**$ 4,222.05**	**$ 4,570.00**	**$ 2,595.00**	**$ 5,050.35**	**$ 3,346.35**	**$ 2,941.75**	**$ 4,571.00**
Retirement - PERS	186.56	155.79	168.63	95.76	186.36	123.48	108.55	168.67
Total Pay Package	**$ 5,242.31**	**$ 4,377.84**	**$ 4,738.63**	**$ 2,690.76**	**$ 5,236.71**	**$ 3,469.83**	**$ 3,050.30**	**$ 4,739.67**
Med/Dent Insurance	578.00	946.00	1,277.48	578.00	360.00	946.00	946.00	1,065.00
Life Insurance	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84
Disability Insurance	3.94	3.94	3.94	3.94	26.26	3.94	3.94	3.94
Clothing or Cleaning allowance	29.00	29.00	29.00	29.00	29.00	29.00	29.00	29.00
Employee Assistance Program	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58
Medical Retirement Plan	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00
Employment Security	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Education Incentive	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Deferred Comp- (Voluntary or match)	278.00	278.00	0.00	150.00	34.16	278.00	175.00	0.00
FICA -- Social Security (6.2%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FICA -- Medicare (1.45%)	76.01	63.48	68.71	39.02	75.93	50.31	44.23	68.73
Labor & Industries-.1053 & .54705-FM/Mech	87.53	87.53	16.85	16.85	16.85	16.85	16.85	16.85
Total Benefit Package	**$ 1,505.90**	**$ 1,861.37**	**$ 1,849.40**	**$ 1,270.23**	**$ 995.62**	**$ 1,777.52**	**$ 1,668.44**	**$ 1,636.94**
Total Compensation	**$ 6,561.65**	**$ 6,083.42**	**$ 6,419.40**	**$ 3,865.23**	**$ 6,045.97**	**$ 5,123.87**	**$ 4,610.19**	**$ 6,207.94**
Gross Annual Hours	**2080.00**	**2080.00**	**2080.00**	**2080.00**	**2080.00**	**2080.00**	**2080.00**	**2080.00**
Sick Leave - total annual hrs	96	96	96	96	120	96	96	96
Vacation - total annual hrs	223	160	160	80	160	220	160	160
Holidays - total annual hrs	96	96	96	96	96	96	96	96
Net Annual Hours	**1665.00**	**1728.00**	**1728.00**	**1808.00**	**1704.00**	**1668.00**	**1728.00**	**1728.00**
Work Week -- average hrs	**32.02**	**33.23**	**33.23**	**34.77**	**32.77**	**32.08**	**33.23**	**33.23**
TCC Hour	$47.29	$42.25	$44.58	$25.65	$42.58	$36.86	$32.02	$43.11
TCC Month	$6,561.65	$6,083.42	$6,419.40	$3,865.23	$6,045.97	$5,123.87	$4,610.19	$6,207.94
TCC Annual	$78,739.84	$73,001.02	$77,032.80	$46,382.71	$72,551.67	$61,486.47	$55,322.27	$74,495.22
Agency Total	**6561.65**	**12166.84**	**6419.40**	**3865.23**	**6045.97**	**10247.75**	**13830.57**	**6207.94**

Figure 112: – SKFR Operations Compensation

SKFR Operations Positions	Prob FF	FF 3rd Class	FF 2nd Class	FF 1st Class	Lieut	PM Prob	Paramedic	Batt Chief	Fire Prev Mgr	Fire Prev Tech
Number of FTE per Position	10	1	0	25	18	1	14	3	1	1
2006 Base Salary	3744.00	4,279.00	4,814.00	5,349.00	5,991.00	3,744.00	5,349.00	6951.02	5396.00	4905.00
Paramedic Premium pay	0.00	0.00	0.00	0.00	0.00	374.40	534.90	0.00	0.00	0.00
Specialist Premium pay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Longevity Premium pay	0.00	0.00	0.00	53.49	59.91	0.00	58.84	0.00	0.00	0.00
Education Attainment Premium pay	187.20	213.95	240.70	267.45	299.55	213.95	294.20	347.55	269.80	245.25
Shift Differential pay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Holiday pay (in lieu of hours)	138.52	158.32	178.10	197.92	221.60	158.32	217.68	276.48	0.00	0.00
Deferred Comp -- (Involuntary)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal -- Salary/Premium Pay	**4069.72**	**4651.27**	**5232.80**	**5867.86**	**6572.06**	**4490.67**	**6454.62**	**7575.05**	**5665.80**	**5150.25**
Retirement - LEOFF (4.90%)	199.42	227.91	256.41	287.53	322.03	220.04	316.28	371.18	277.62	252.36
Total Pay Package	**$ 4,269.14**	**$ 4,879.18**	**$ 5,489.21**	**$ 6,155.39**	**$ 6,894.09**	**$ 4,710.71**	**$ 6,770.90**	**$ 7,946.23**	**$ 5,943.42**	**$ 5,402.61**
Med/Dent Insurance	946.00	946.00	946.00	946.00	946.00	946.00	946.00	946.00	946.00	360.44
Life Insurance	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84
Disability Insurance	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94
Clothing or Cleaning allowance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.00	29.00
Employee Assistance Program	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58
Medical Retirement Plan	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00	450.00
Employment Security	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Education Incentive	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Deferred Comp- (Voluntary or match	277.77	277.77	277.77	277.77	277.77	277.77	277.77	277.77	277.77	277.77
FICA -- Social Security (6.2%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FICA -- Medicare (1.45%)	61.90	70.75	79.59	89.25	99.96	68.31	98.18	115.22	86.18	78.34
Labor & Industries (.54705)	87.53	87.53	87.53	87.53	87.53	87.53	87.53	87.53	87.53	87.53
Total Benefit Package	**$1,830.56**	**$1,839.41**	**$1,848.25**	**$1,857.91**	**$1,868.62**	**$1,836.96**	**$1,866.84**	**$1,883.88**	**$1,883.84**	**$1,290.44**
Total Compensation	**$5,900.28**	**$6,490.68**	**$7,081.05**	**$7,725.77**	**$8,440.68**	**$6,327.63**	**$8,321.46**	**$9,458.93**	**$7,549.64**	**$6,440.69**
Gross Annual Hours	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2920.00**	**2080.00**	**2080.00**
Kelly Time - total annual hrs	312	312	312	312	312	312	312	312	0	0
Sick Leave - total annual hrs	288	288	144	144	144	288	144	144	144	144
Vacation - total annual hrs	144	144	144	144	144	144	144	336	160	160
Holidays - total annual hrs	0	0	0	0	0	0	0	0	96	96
Net Annual Hours	**2176.00**	**2176.00**	**2320.00**	**2320.00**	**2320.00**	**2176.00**	**2320.00**	**2128.00**	**1680.00**	**1680.00**
Work Week -- average hrs	**41.85**	**41.85**	**44.62**	**44.62**	**44.62**	**41.85**	**44.62**	**40.92**	**32.31**	**32.31**
TCC Hour	$32.54	$35.79	$36.63	$39.96	$43.66	$34.90	$43.04	$53.34	$53.93	$46.00
TCC Month	$5,900.28	$6,490.68	$7,081.05	$7,725.77	$8,440.68	$6,327.63	$8,321.46	$9,458.93	$7,549.64	$6,440.69
TCC Annual	$70,803.37	$77,888.11	$84,972.62	$92,709.25	$101,288.19	$75,931.60	$99,857.47	$113,507.14	$90,595.65	$77,288.23
AGENCY TOTAL	**$59,002.80**	**$6,490.68**	**$0.00**	**$193,144.28**	**$151,932.28**	**$6,327.63**	**$116,500.38**	**$28,376.78**	**$7,549.64**	**$6,440.69**

Appendix D: City of Bremerton Comprehensive Plan Maps

Figure 113: – City of Bremerton Comprehensive Plan (1 of 2)

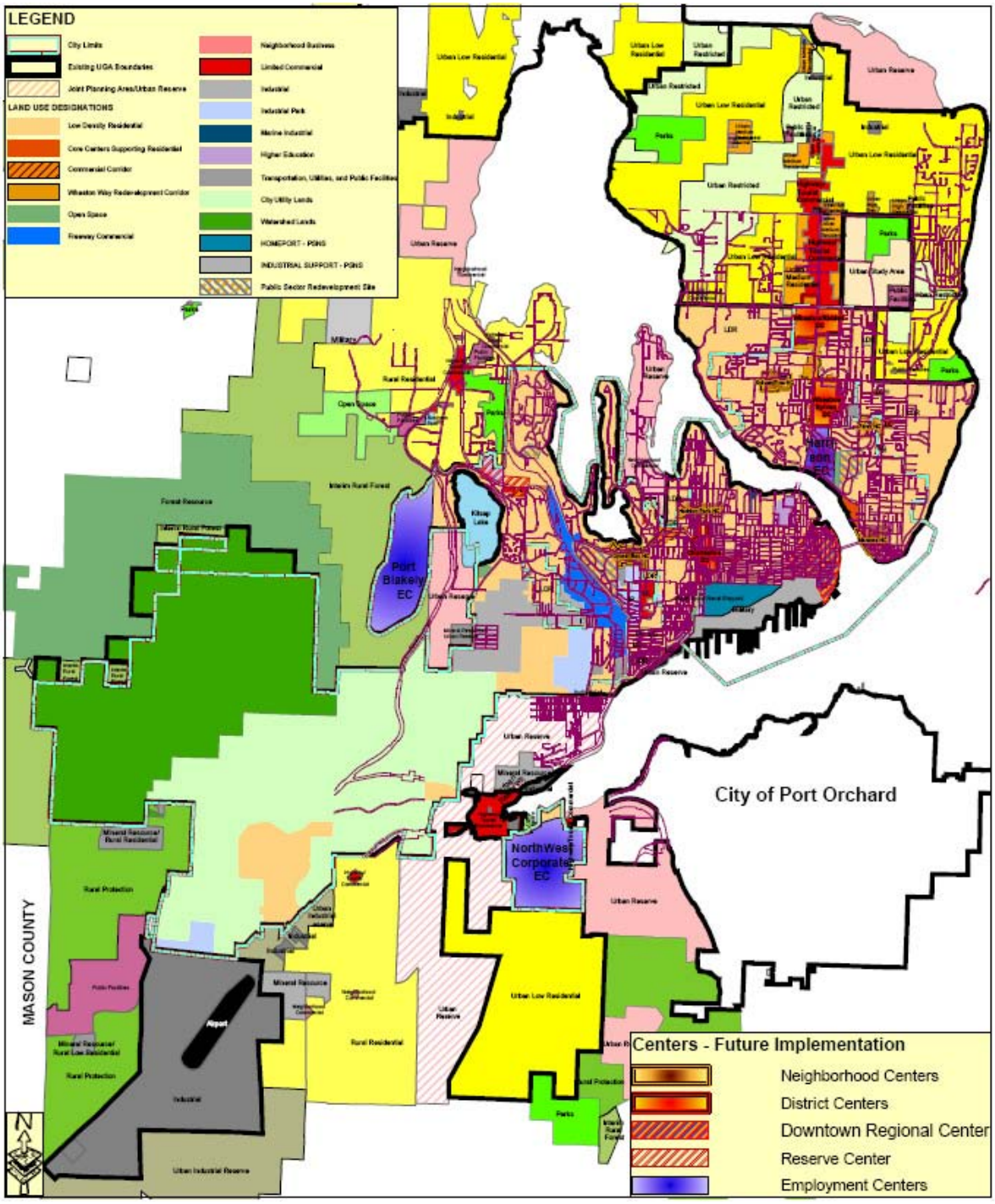
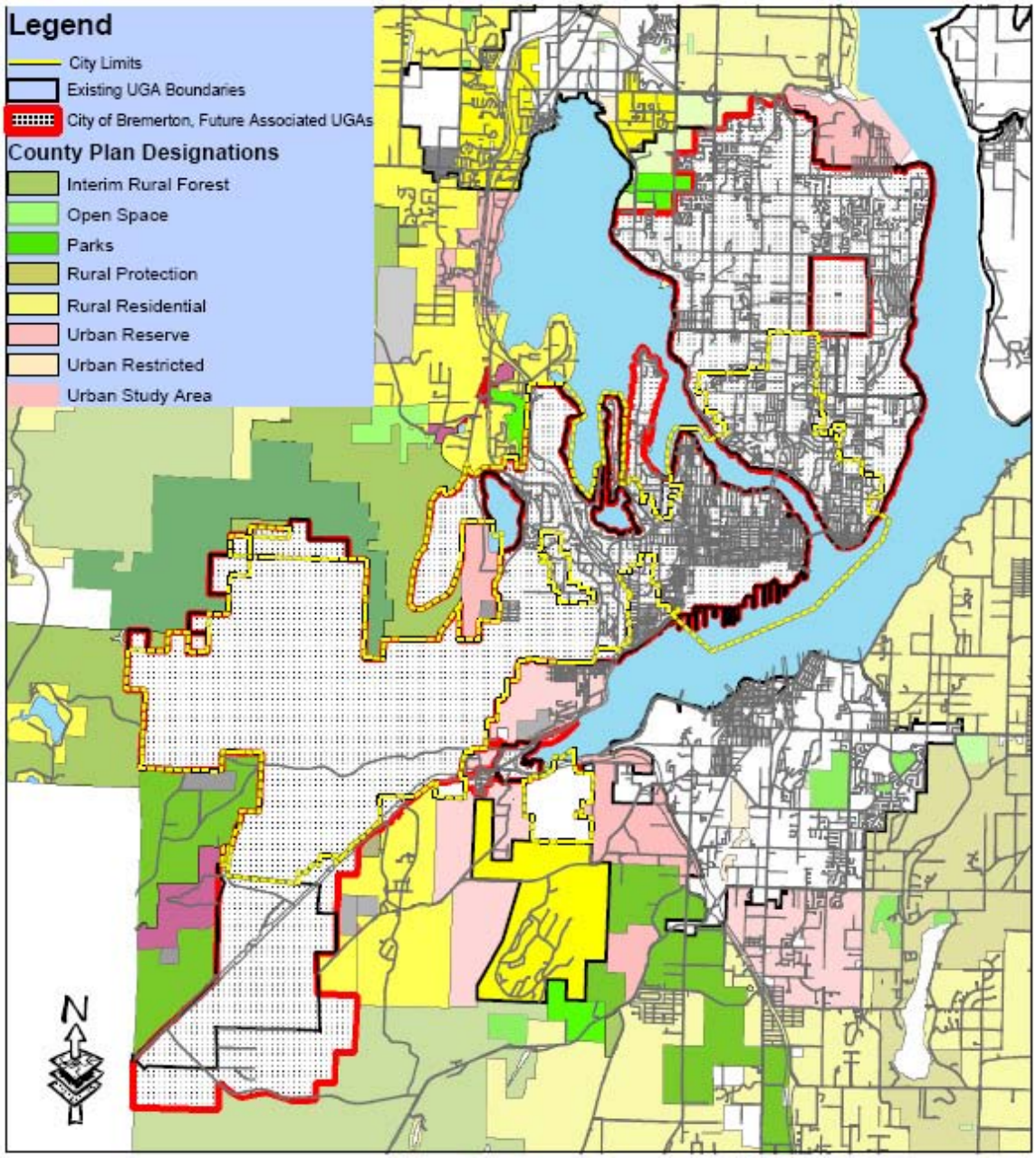


Figure 114: – City of Bremerton Comprehensive Plan (2 of 2)



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Appendix E: Bremerton Fire Department Supplemental Data

Figure 115: – BFD Response Time, Hour of Day

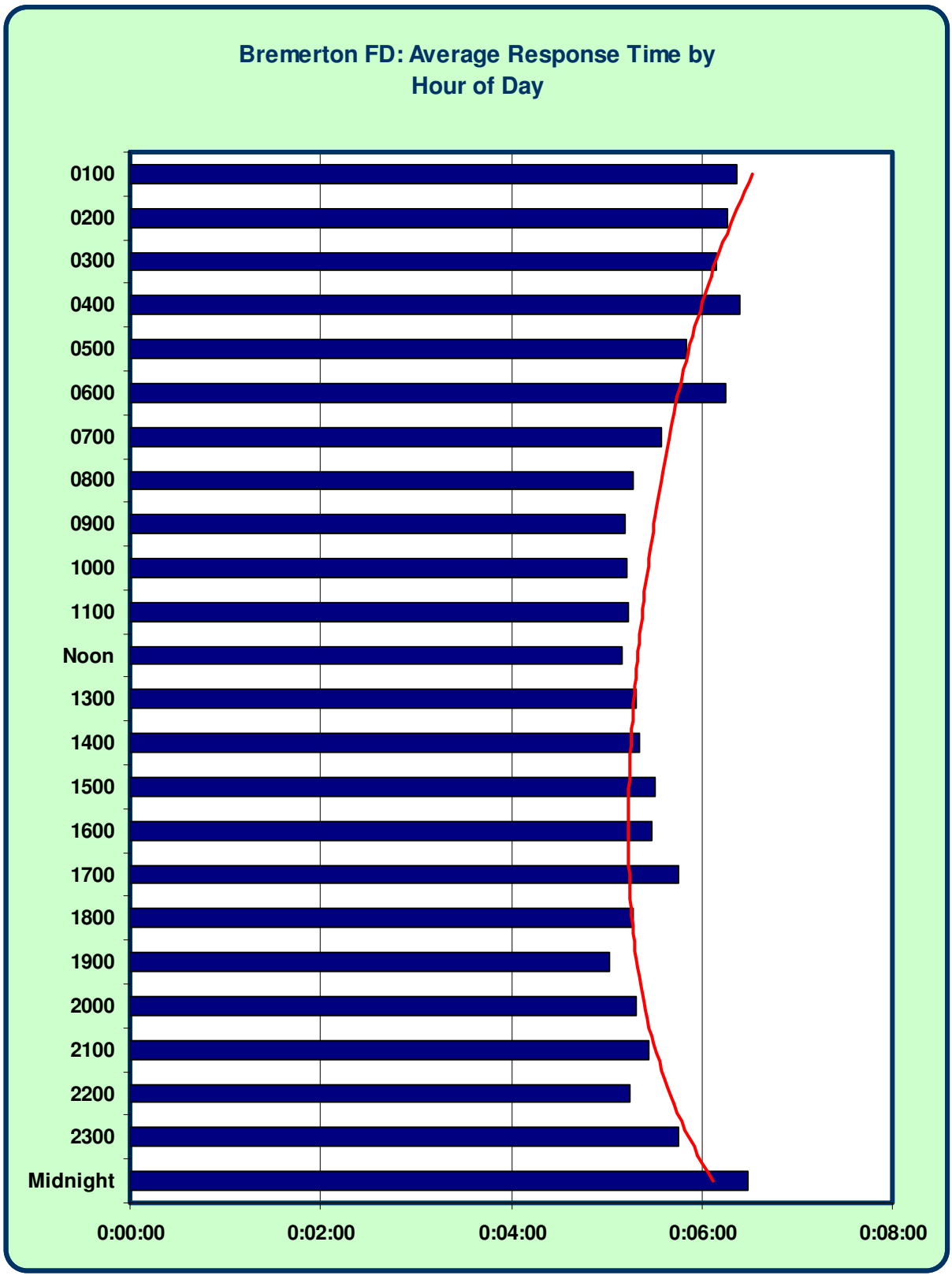


Figure 116: – BFD 90th Percentile Response Time, Hour of Day

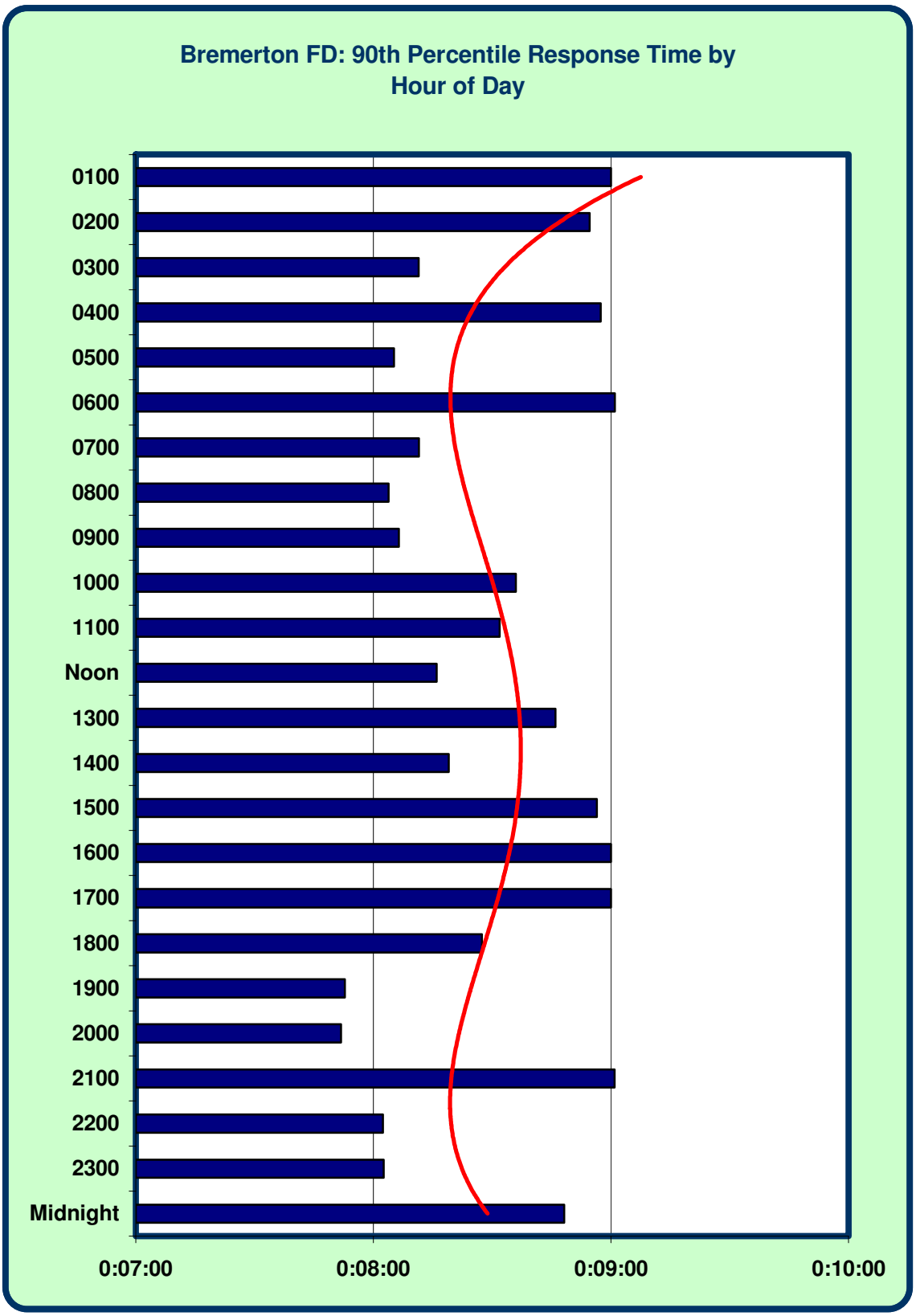
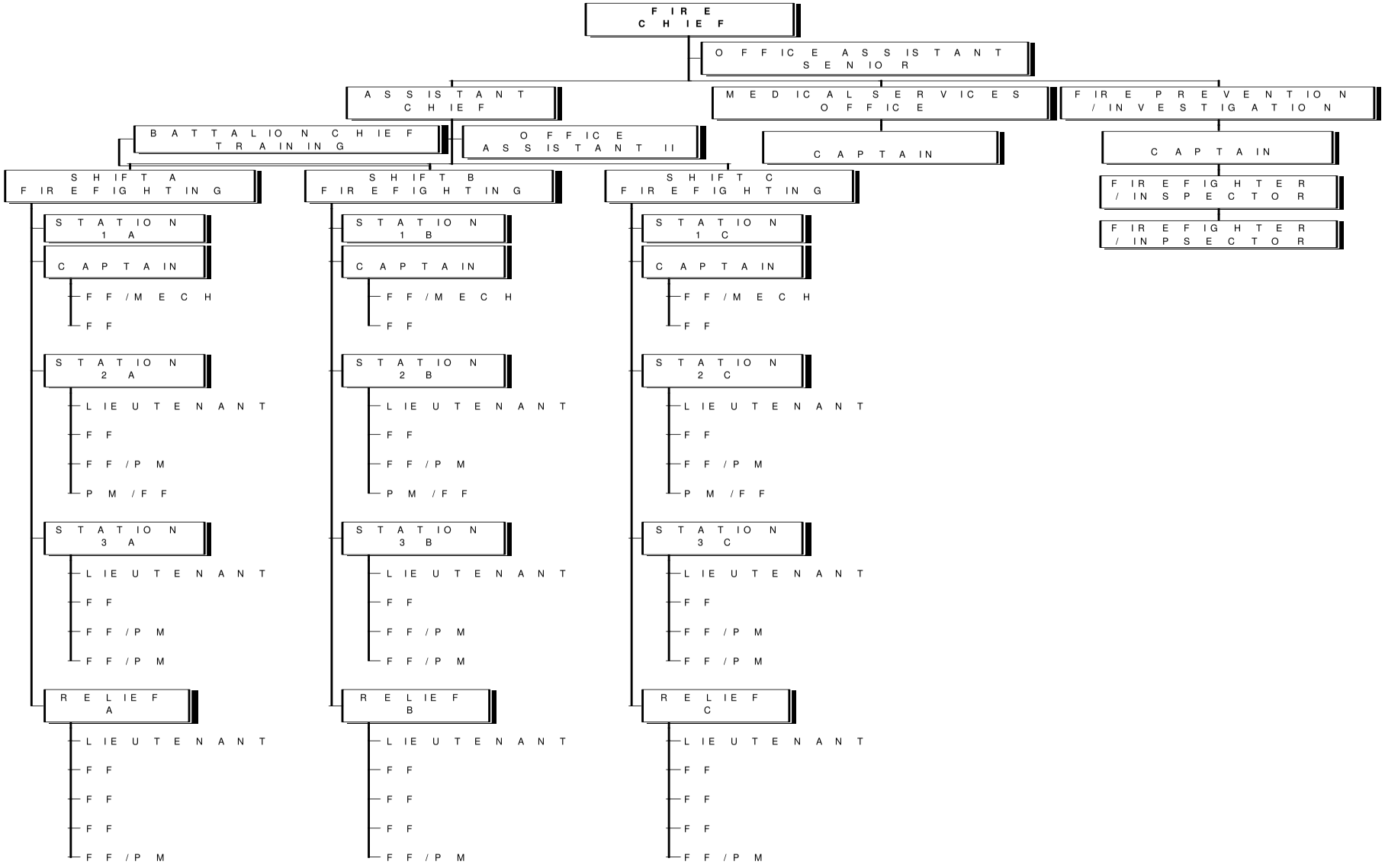


Figure 117: – BFD Organizational Chart



Appendix F: Central Kitsap Fire & Rescue Supplemental Data

Figure 118: – CKFR Average Response Time, Hour of Day

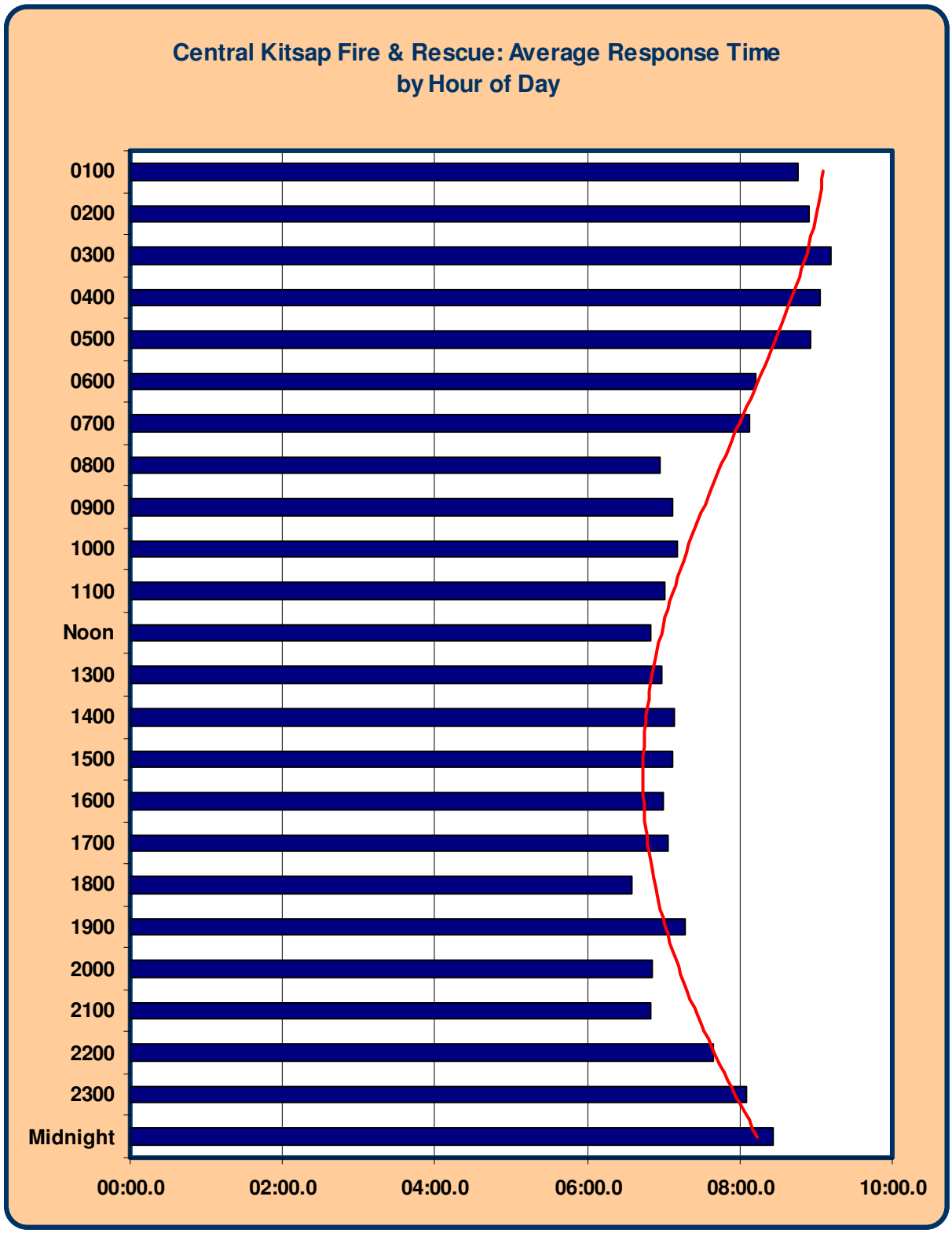


Figure 119: – CKFR 90th Percentile Response Time, Hour of Day

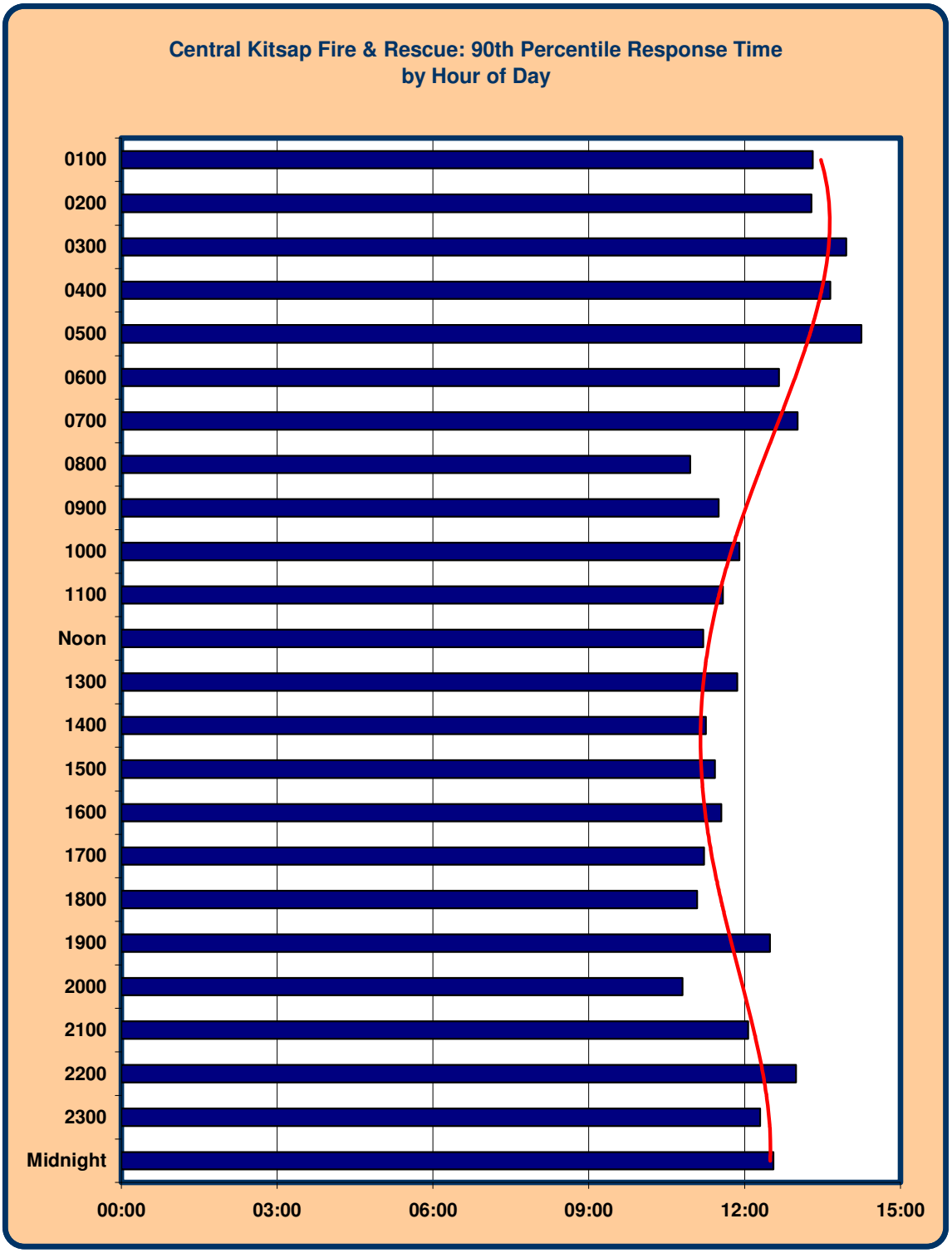
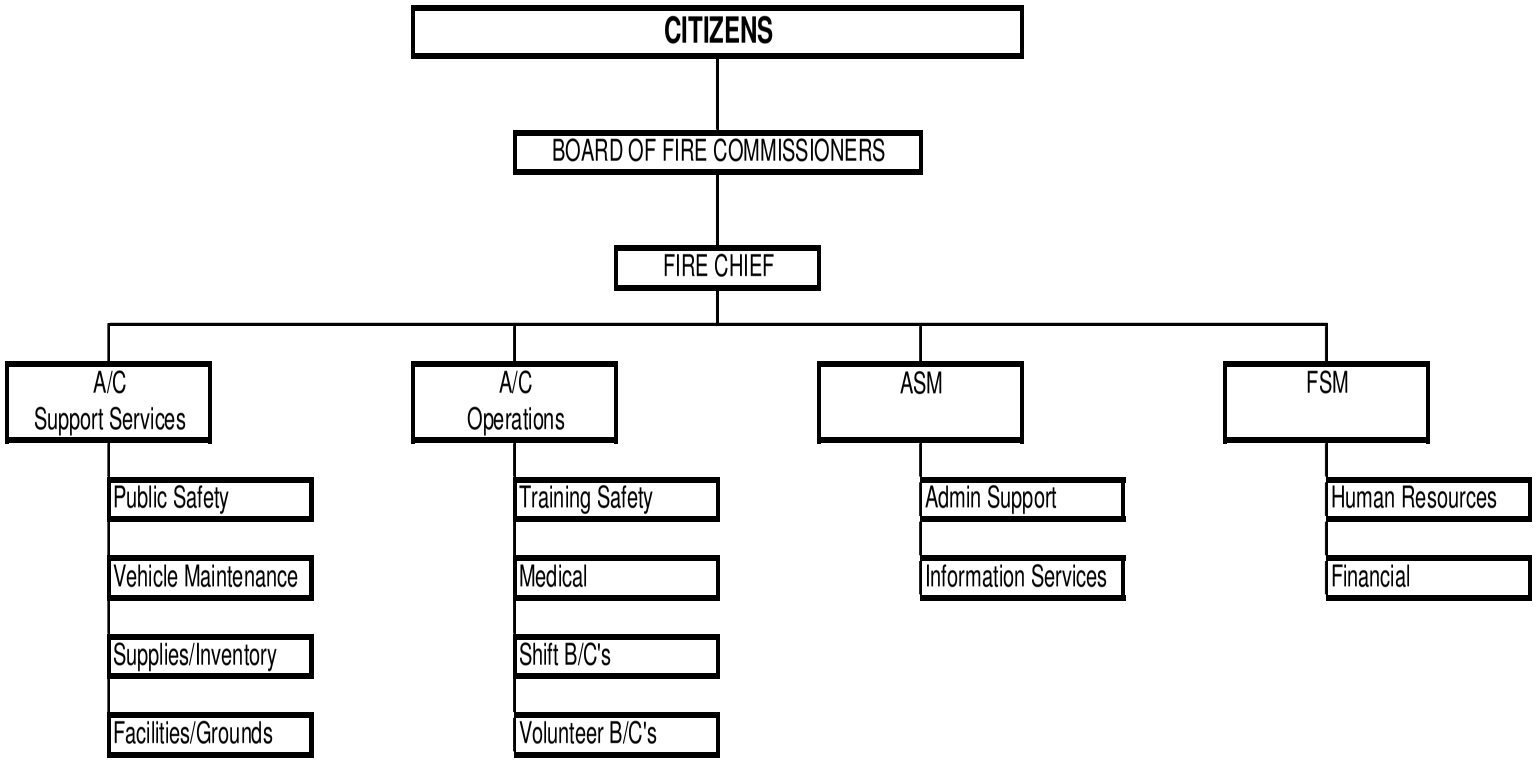


Figure 120: – CKFR Organizational Chart



Appendix G: South Kitsap Fire & Rescue Supplemental Data

Figure 121: – SKFR Average Response Time, Hour of Day

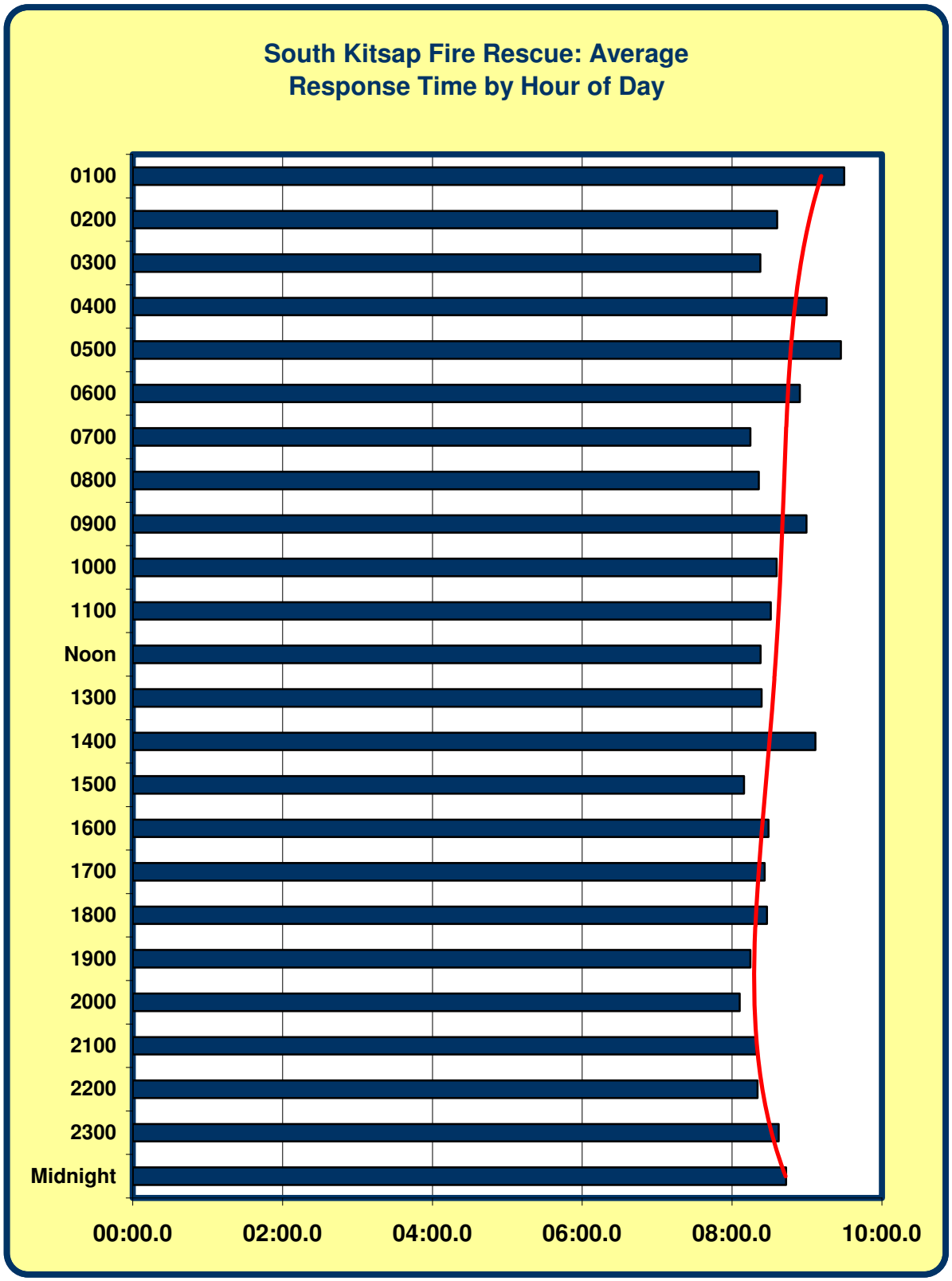


Figure 122: – SKFR 90th Percentile Response Time, Hour of Day

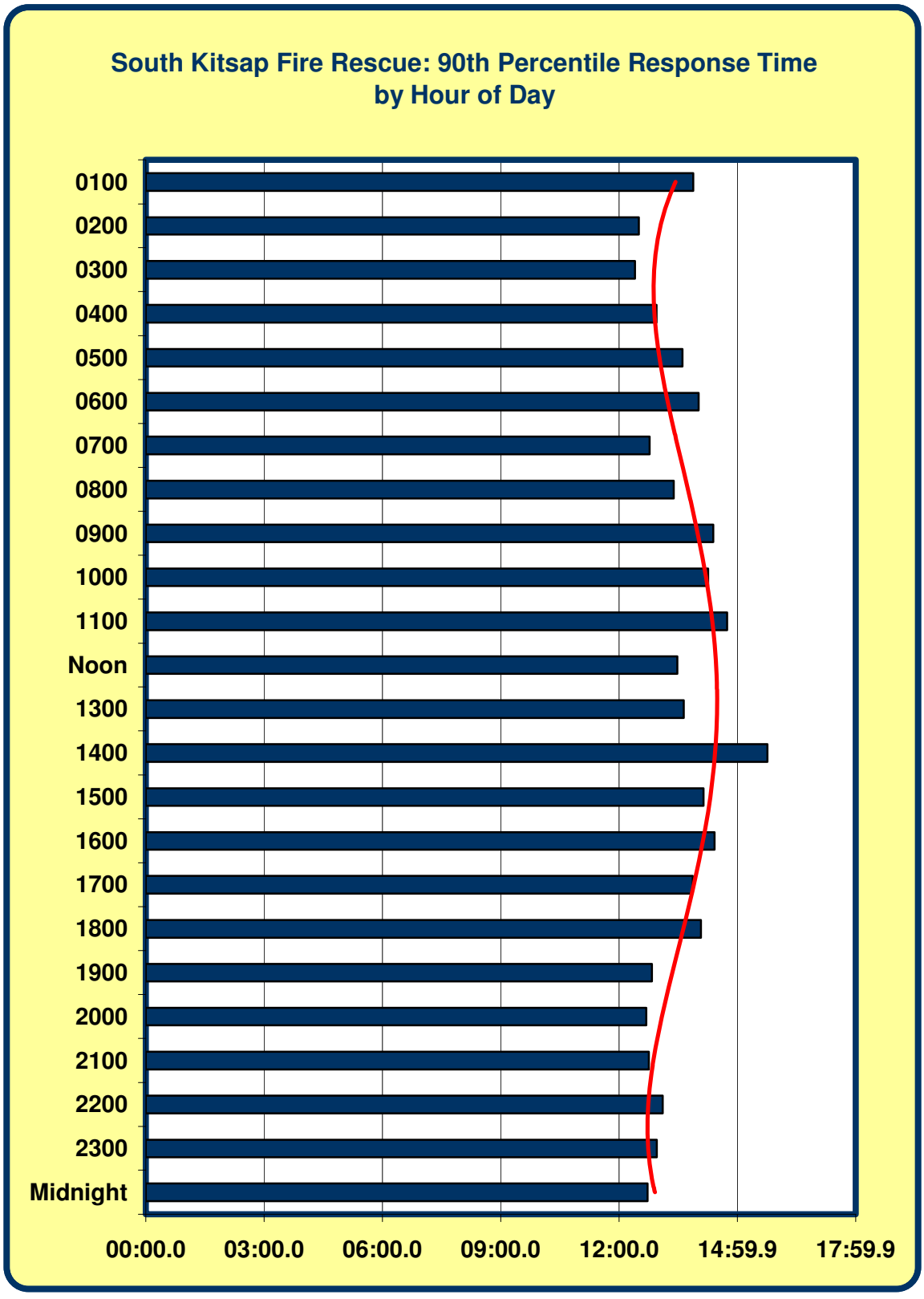
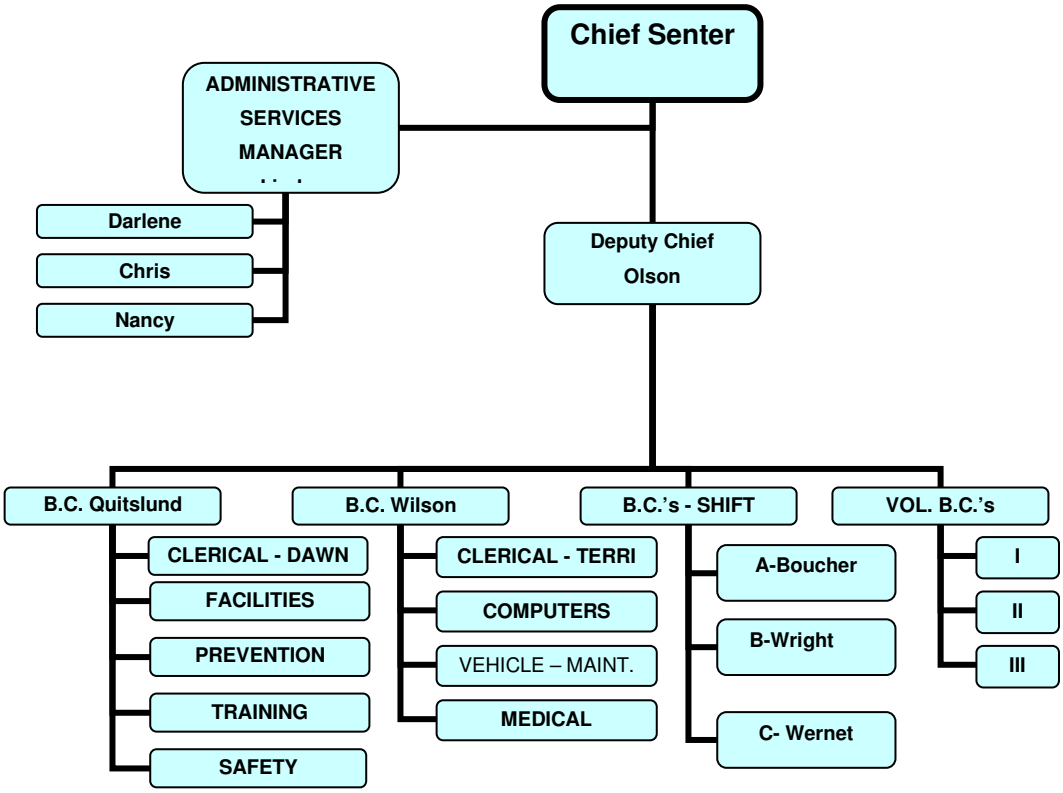


Figure 123: – SKFR Organizational Chart



Appendix H: Response Performance

The ultimate goal of any emergency service delivery system is to provide sufficient resources (personnel, apparatus, and equipment) to the scene of an emergency in time to take effective action to minimize the impacts of the emergency. This need applies to fires, medical emergencies, and any other emergency situation to which the fire department responds.

People, Tools, and Time

As stated before, time matters a great deal in the achievement of an effective outcome to an emergency event. However, time isn't the only factor. Delivering sufficient numbers of properly trained, appropriately equipped personnel within the critical time period completes the equation.

Dynamics of Fire in Buildings

Most fires within buildings develop in a predictable fashion, unless influenced by highly flammable material. Ignition, or the beginning of a fire, starts the sequence of events. It may take some minutes or even hours from the time of ignition until flame is visible. This smoldering stage is very dangerous, especially during times when people are sleeping, since large amounts of highly toxic smoke may be generated during early phases.

Once flames do appear, the sequence continues rapidly. Combustible material adjacent to the flame heats and ignites, which in turn heats and ignites other adjacent materials if sufficient oxygen is present. As the objects burn, heated gases accumulate at the ceiling of the room. Some of the gases are flammable and highly toxic.

The spread of the fire continues quickly. Soon the flammable gases at the ceiling reach ignition temperature. At that point, an event termed *flashover* takes place; the gases ignite, which in turn ignites everything in the room. Once flashover occurs, damage caused by the fire is significant and the environment within the room can no longer support human life.

Flashover usually happens about five to eight minutes from the appearance of flame in typically furnished and ventilated buildings. Since flashover has such a dramatic influence on the outcome of a fire event, the goal of any fire agency is to apply water to a fire before flashover takes place.

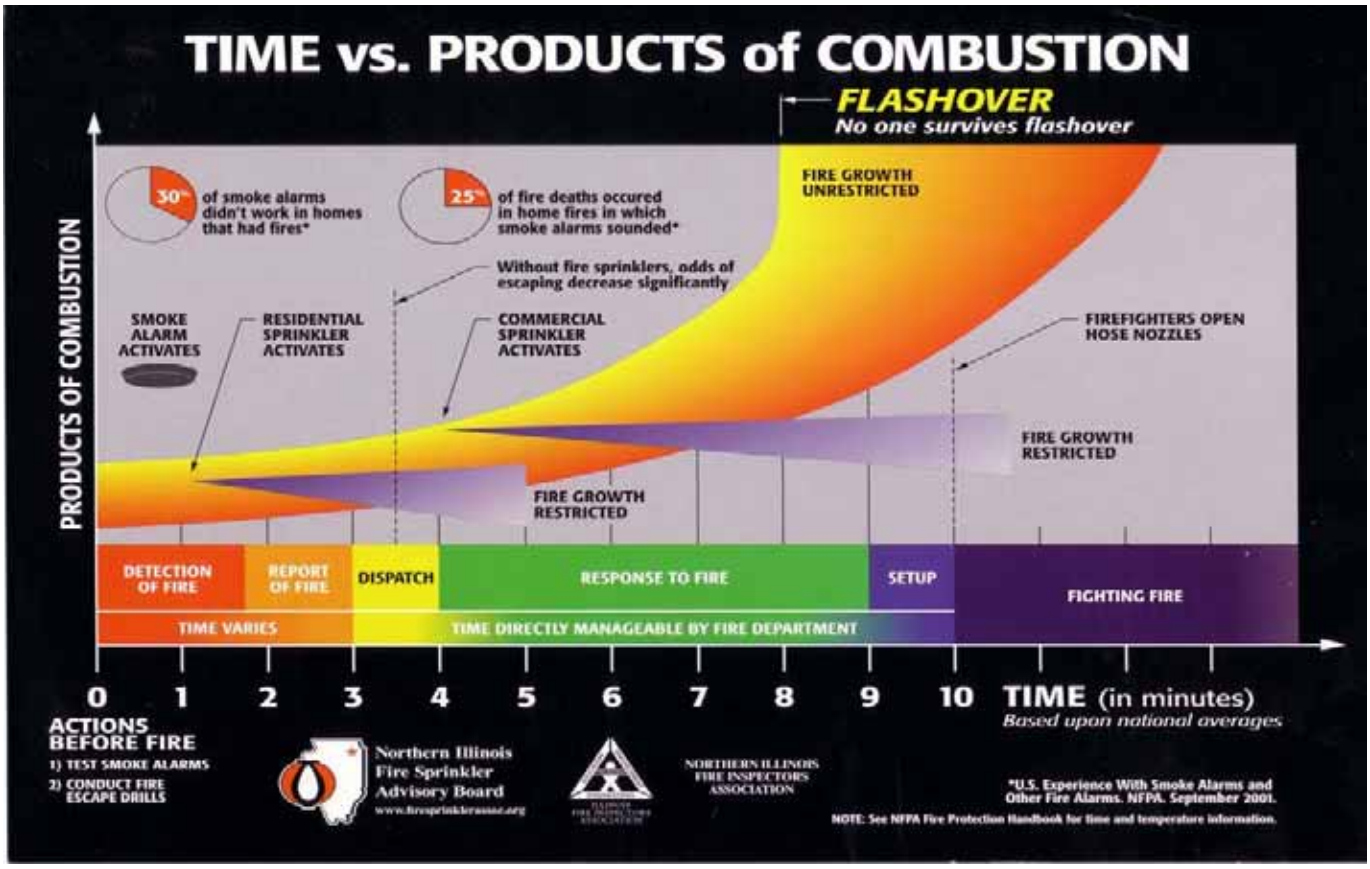
Perhaps as important as preventing flashover is the need to control a fire before it does damage to the structural framing of a building. Materials used to construct buildings today are often less fire resistive

than the heavy structural skeletons of older frame buildings. Roof trusses and floor joists are commonly made with lighter materials more easily weakened by the effects of fire. Light weight roof trusses fail after five to seven minutes of direct flame impingement. Plywood I-beam joists can fail after as little as three minutes of flame contact. This creates a very dangerous environment for firefighters.

In addition, the contents of buildings today have a much greater potential for heat production than in the past. The widespread use of plastics in furnishings, and other building contents, rapidly accelerate fire spread and increase the amount of water needed to effectively control a fire. All of these factors make the need for early application of water essential to a successful fire outcome.

A number of things must happen quickly to make it possible to achieve fire suppression prior to flashover. The figure below illustrates the sequence of events.

Figure 124: – Flashover Timeline



The *reflex time* continuum consists of six steps, beginning with ignition and concluding with the application of (usually) water. The time required for each of the six components varies. The policies and

practices of a fire department directly influence four of the steps, but two are only indirectly manageable. The six parts of the continuum are:

1. Detection: The detection of a fire may occur immediately if someone happens to be present or if an automatic system is functioning. Otherwise, detection may be delayed, sometimes for a considerable period.

2. Report: Today most fires are reported by telephone to the 9-1-1 center. Call takers must quickly elicit accurate information about the nature and location of the fire from persons who are apt to be excited. A citizen well trained in how to report emergencies can reduce the time required for this phase.

3. Dispatch: The dispatcher must identify the correct fire units, subsequently dispatch them to the emergency, and continue to update information about the emergency while the units respond. This step offers a number of technological opportunities to speed the process including computer aided dispatch and global positioning systems.

4. Turnout and Response: Firefighters must don firefighting equipment, assemble on the response vehicle, and begin travel to the fire. Good training and proper fire station design can minimize the time required for this step. Response is the potentially longest phase of the continuum. The distance between the fire station and the location of the emergency influences reflex time the most. The quality and connectivity of streets, traffic, driver training, geography, and environmental conditions are also a factor.

5. Set up: Last, once firefighters arrive on the scene of a fire emergency, fire apparatus are positioned, hose lines stretched out, additional equipment assembled, and certain preliminary tasks performed (such as rescue) before entry is made to the structure and water is applied to the fire.

The application of water in time to prevent flashover is a serious challenge for any fire department. It is critical, though, as studies of historical fire loss data can demonstrate.

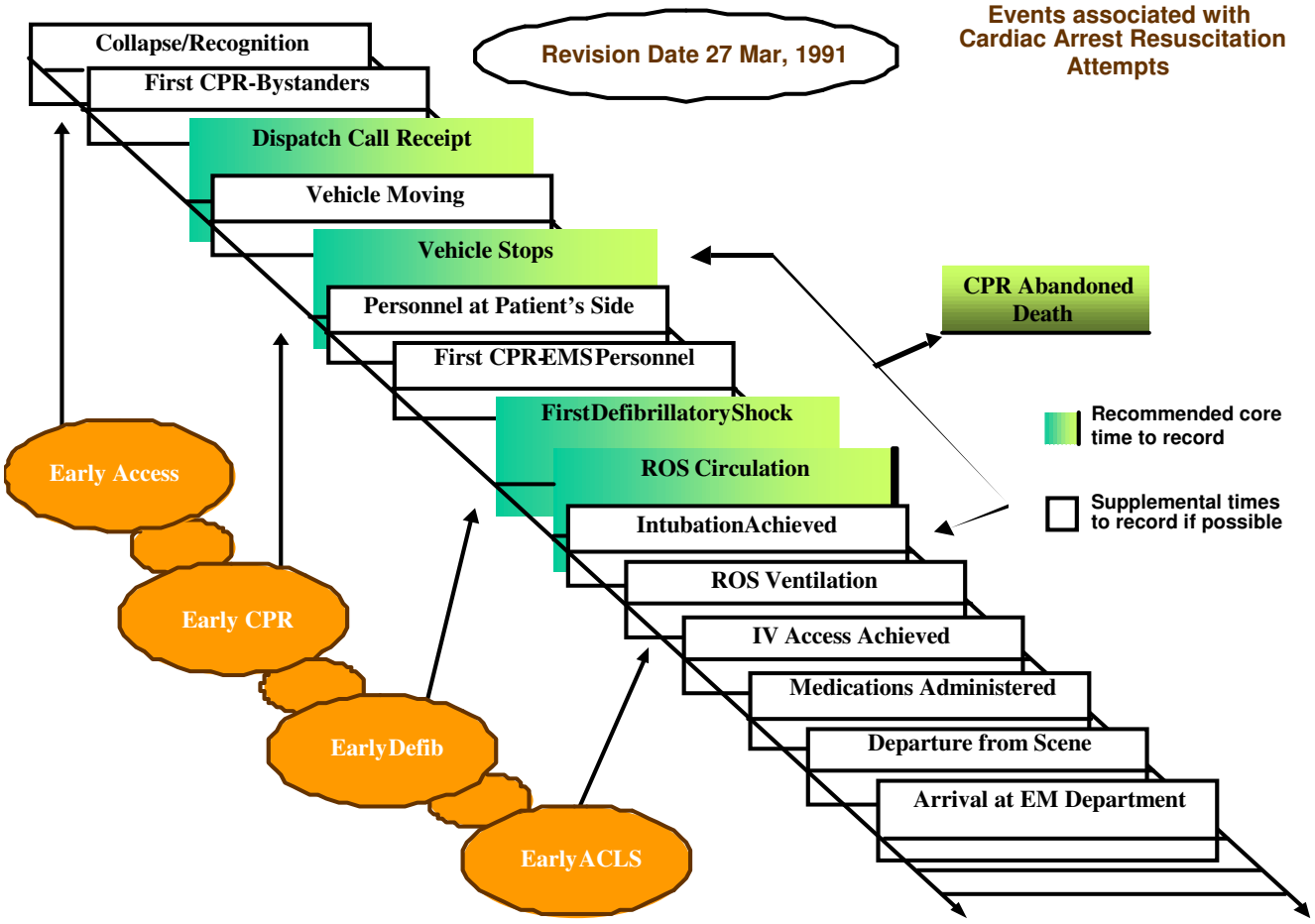
The National Fire Protection Association studied data from residential structures occurring between 1994 and 1998 in order to analytically quantify the relationship between the growth of a fire beyond the room of origin and losses in life and property. Fires contained to the room of origin (typically extinguished prior to or immediately following flashover) have significantly lower rates of death, injury, and property loss when compared to fires that had an opportunity to spread beyond the room of origin (typically extinguished post-flashover). Incidents in which a fire spreads beyond the room where it originates are likely to experience six times the amount of property loss and have almost nine times greater chance of resulting in a fatality.

Emergency Medical Event Sequence

Cardiac arrest is one of the most significant life threatening medical events+. A victim of cardiac arrest has mere minutes in which to receive definitive lifesaving care if there is to be any hope for resuscitation. Recently, the American Heart Association (AHA) issued a new set of cardiopulmonary resuscitation guidelines designed to streamline emergency procedures for heart attack victims, and to increase the likelihood of survival. The AHA guidelines include new goals for the application of cardiac defibrillation to cardiac arrest victims. Heart attack survival chances fall by seven to ten percent for every minute between collapse and defibrillation. Consequently, the AHA now recommends cardiac defibrillation within five minutes of cardiac arrest.

As with fires, the sequence of events that lead to emergency cardiac care can be visually shown, as in the following figure[52].

Figure 125: – Cardiac Trauma Sequence of Events (Utstein Criterion)



[52] American Red Cross

The percentage of opportunity for recovery from cardiac arrest drops quickly as time progresses. The stages of medical response are very similar to the components described for a fire response. Recent research stresses the importance of rapid cardiac defibrillation and administration of certain drugs as a means of improving the opportunity for successful resuscitation and survival. An Oregon fire department recently studied the effect of time on cardiac arrest resuscitation, and found that nearly all of their *saves* were within one and one-half miles of a fire station, underscoring the importance of quick response.

Any discussion of response time performance centers on these four key time sequences:

- Call processing and dispatch
- Turnout time of firefighters
- Initial resource arrival
- Effective response force arrival

These performance centers are discussed in greater depth in this report.

Though the following standards discussed in this section are not mandatory, they provide at least some generally accepted targets against which to benchmark response time performance in the absence of formally adopted response time standards.

The National Fire Protection Association has issued a response performance standard[53] for all or mostly career-staffed fire departments. Likewise, the State of Washington has also adopted legislation[54] requiring 'substantially career' fire departments to develop and adopt response performance criteria. Both South Kitsap Fire & Rescue and Central Kitsap Fire & Rescue have adopted and updated response performance standards.

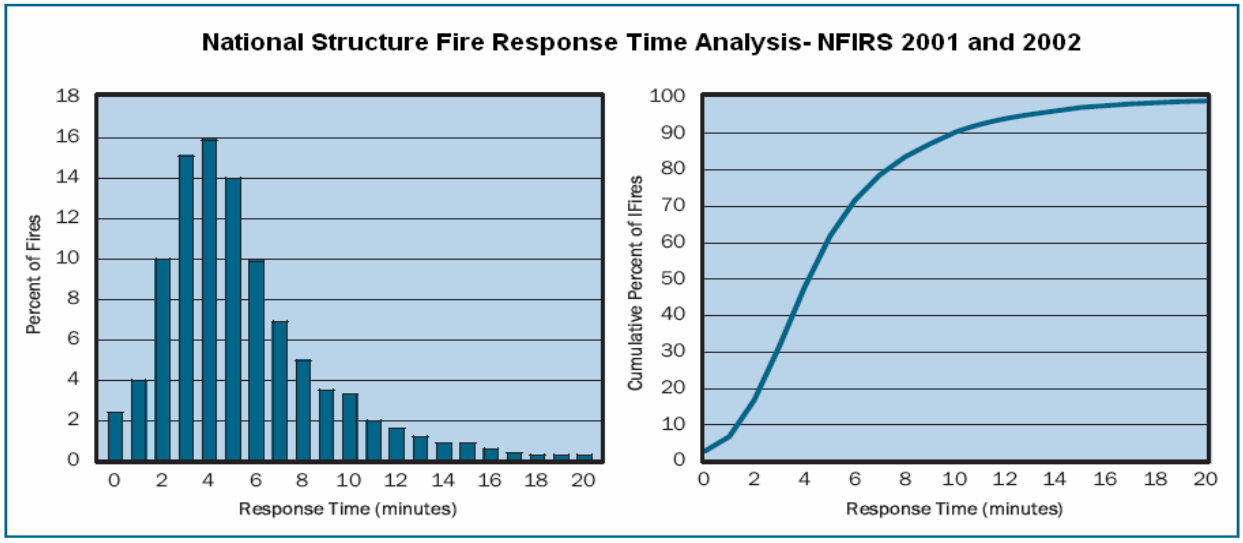
Again, it is noted that the standard 'measuring device' for these requirements is on a *90th* percentile – meaning that the performance must be met ninety percent of the time. Often, when fire departments analyze their response performance, they use an average percentile when measuring their performance against an established standard. Because of the incongruent nature of factors in tracking response performance for fire departments, measuring average percentiles falls short of telling the true picture of how well an agency is meeting their performance standards. The use of a *90th* percentile – or how an agency or unit performs 90 percent of the time – is the most accurate method of determining the true

[53] NFPA 1710/NFPA 1720.
[54] Substitute House Bill 1756 – Deployment Standards.

picture of how well an organization is meeting any of its established performance standards, whether in emergency response or any other standards.

Nationally, the highest percentage (16 percent) of structure fires had a response time in the four-minute range, as illustrated in Figure 126 The percent of structure fires with response times of three and five minutes were not far behind at 15 percent and 14 percent, respectively. Overall, 61 percent of structure fires in 2001 and 2002 had a response time of less than six minutes.[55]

Figure 126: – National Response Time Analysis, Structure Fires



"Structure Fire Response Times"- U.S. Fire Administration/ National Data Center, January 2006

The scope of the examination of emergency response statistics for the Kitsap County fire agencies was limited to three objectives:

- Determine if the data (and therefore the data collection methods) appear to be valid
- Determine if the data is complete
- Develop useful statistics on critical time elements that can be used to characterize the BFD, SKFR, and CKFR performance and experiences in the subject year

Response Performance for Kitsap Fire Agencies

SKFR and CKFR, as discussed earlier, have established and updated response time performance objectives as required by the accreditation process. The Bremerton Fire Department has not previously established formal response time performance objectives other than what is spoken of in the city

[55] FEMA/NFPA, "*A Needs Assessment of the U.S. fire Service*", FA-240/December.

comprehensive plan. Given the absence of formal response time performance standards, the NFPA standards will be used as an initial benchmark against which to evaluate system performance for this study.

In review, there are three response time performance centers in the evaluation of a standards of coverage doctrine. Those three centers are:

- Call processing and dispatch
- Turnout time of firefighters
- Initial resource arrival
- Effective response force arrival

Call Processing and Dispatch

When it comes to call processing and dispatch time, *NFPA 1221: Installation, Maintenance, and Use of Emergency Services Communications Systems* provided a benchmark for call processing time (call pick-up to completion of unit notification) of *60 seconds or less*. The standard calls for this performance to be met at least 90 percent of the time.

Turnout Time of Firefighters

For firefighter turnout times, *NFPA 1710* provides a benchmark for firefighter turnout time (from notification to apparatus response) of *60 seconds or less*. The standard calls for this performance to be met at least 90 percent of the time. As most fire personnel will attest to, this is a difficult standard to meet due to designs and barriers beyond their control.

Travel Time

For initial unit response times, *NFPA 1710* provides several benchmarks for career fire departments.

- For fire incidents, the standard provides a benchmark for initial engine company arrival (from apparatus response to arrival on scene) of 4 minutes or less.
- For emergency medical incidents, the standard provides a benchmark for initial arrival of trained medical responders with an automatic external defibrillator (from apparatus response to arrival on scene) of 240 seconds or less.

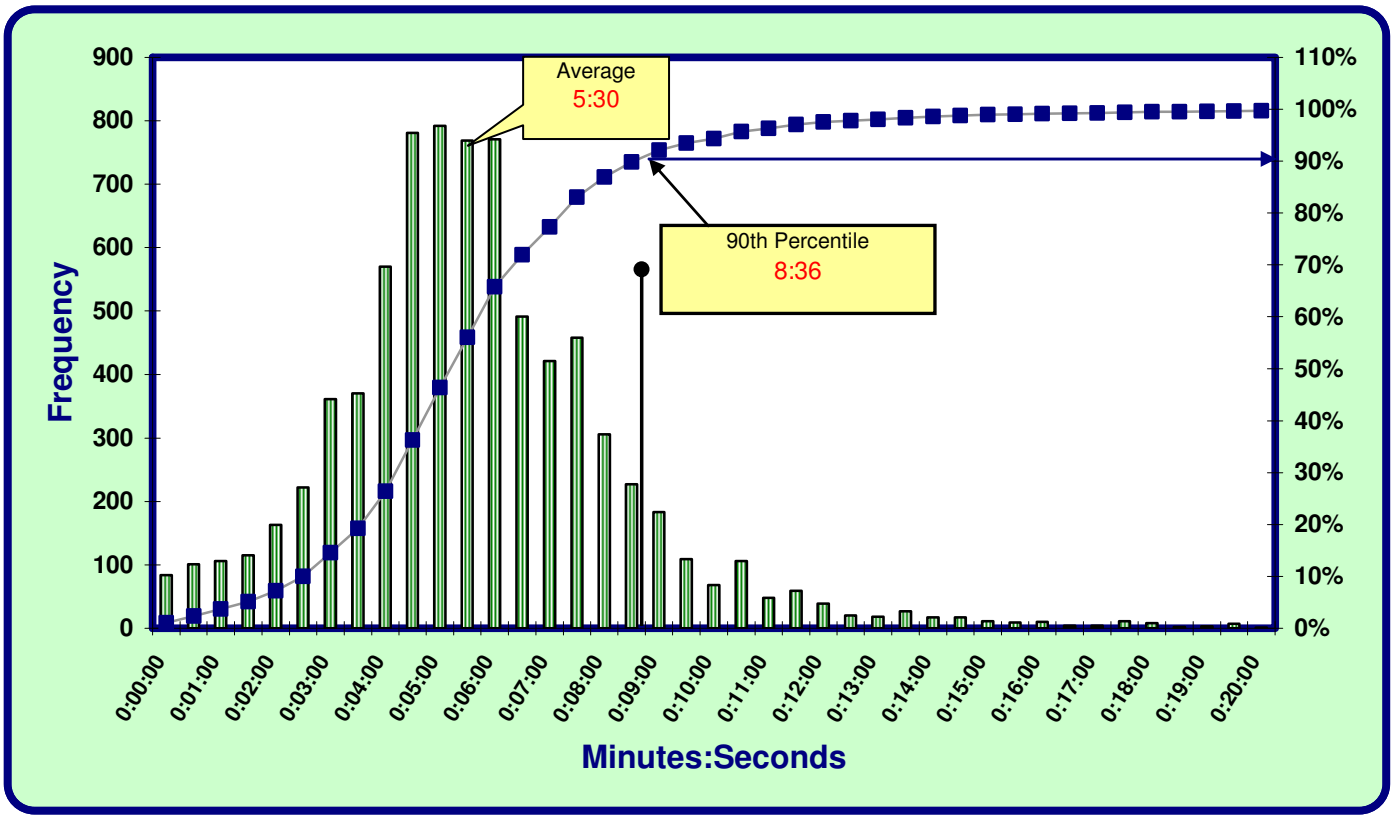
Of the three response performance factors in this analysis, the last two (turnout times and travel times) are the most manageable by the fire department. The first segment – receiving the 9-1-1- call and transmitting an alarm to Kitsap agencies -- are not directly manageable by the fire department. Because ESCi was unable to obtain data from the dispatch agency, no analysis is included in this report.

The 'turn-out' of firefighters element is very manageable from within a fire department and relates to design of fire stations, staffing models (staffed vs. volunteer fire stations) and internal turn-out requirements to be met by on-duty crews.

When evaluating overall response performance of a fire agency in light of establishing a respectable response performance standard, it is clear that literally *every second counts*. Often fire departments are more willing to blame road or traffic conditions on their response performance. A deeper look sometimes would indicate that precious time is lost in the dispatch center or in getting fire department resources 'on the road' in a rapid fashion. The data for these ESCi histograms is based upon NFIRS information provided by each agency for the year 2005.

As shown in the following figure, the average response time for the Bremerton Fire Department is 5 minutes and 30 seconds from time of receipt of the 9-1-1- call until a Bremerton Fire Department unit arrives. The 90th percentile response time is a moderately acceptable 8 minutes and 36 seconds. Because earlier discussion provided evidence that the Bremerton fire stations were adequately located, this extended 90th percentile time figure can be based upon two factors. The first factor would be extended dispatch times by CENCOM and/or extended turnout time by the firefighters. No data was available to analyze this impact. The second factor would be reflected in the unit reliability rate shown earlier. Unit reliability rates would have a direct affect on the response times of fire/EMS apparatus coming from an extended distance when 'first due' apparatus are not available.

Figure 127: – Overall 2005 Response Time Performance, Bremerton Fire Department



The following figures are provided to give evidence to the *average* and *90th percentile* response performance for the SKFR and CKFR fire districts. As noted in Figure 128 and Figure 129, SKFR and CKFR have longer response times than the more compact city of Bremerton. There are several factors to be considered in this analysis.

First, the same discussion would apply as with Bremerton when considering *dispatch* and *turnout* times. In the absence of that data, ESCi cannot determine whether either of those factors are causal in the extended response times of both fire districts. However, these response performance elements are crucial and manageable to reduce overall response performance. The second factor, also parallel to Bremerton, is the unit reliability rate. Clearly the reliability rates of the more 'urban' fire stations of CKFR and SKFR are causal to extended response/travel times for back-up units.

Another key factor to consider with the fire districts is the geography of their service area. Much of both of the fire districts' service area is very rural and the transportation/road infrastructure is indeed challenging to provide quick response to all areas.

Further analysis of SKFR and CKFR incident response performance is provided by a number of other figures and charts as included in the appendix of this report.

Figure 128: – Overall Response Time Performance, South Kitsap Fire & Rescue (2005)

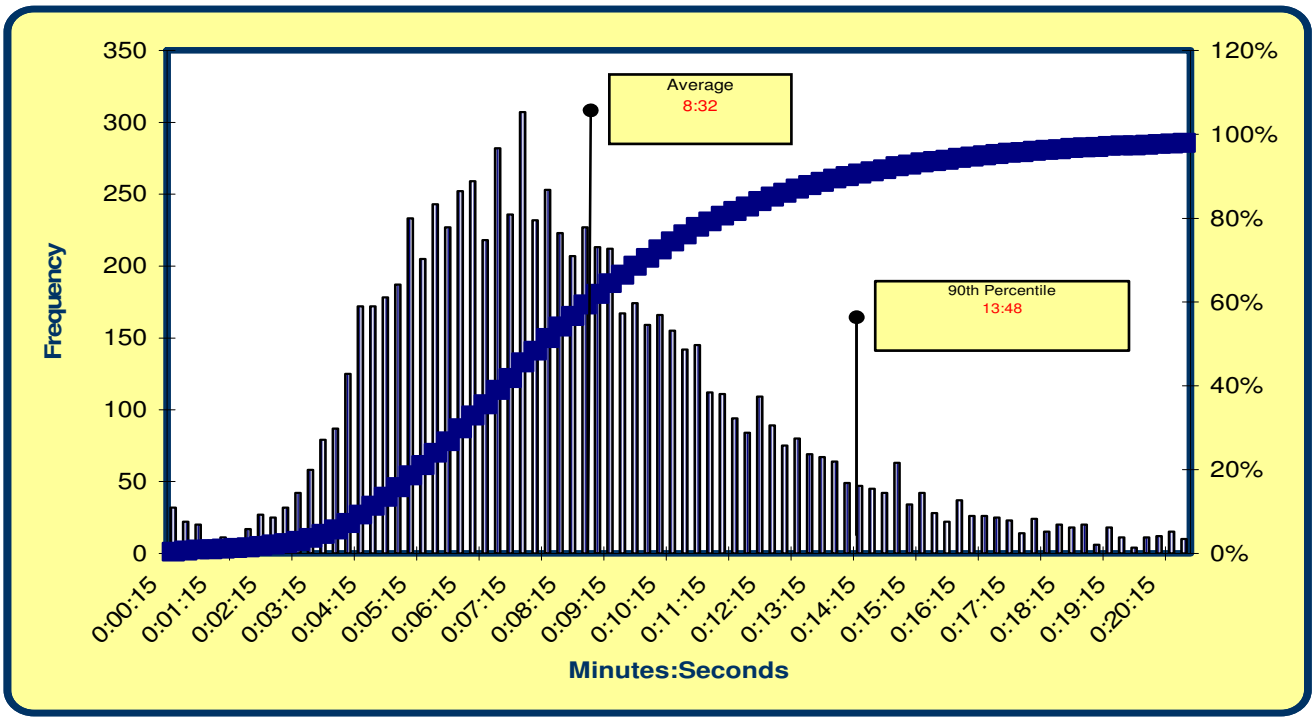


Figure 129: – Overall Response Time Performance, Central Kitsap Fire & Rescue (2005)