Appendices

Appendix A: Table of Figures

Figure 1: City of Kirkland Annexation History	16
Figure 2: City of Kirkland Annexation History Map	17
Figure 3: Annexation Area, June 2011	
Figure 4: Kirkland Fire & Building Department Organizational Chart	21
Figure 5: KF&BD Revenue, 2008 – 2012	23
Figure 6: KF&BD EMS Transportation Revenue, March 2011 – January 2012	24
Figure 7: KF&BD Expenditures by Department, 2008 – 2012	
Figure 8: KF&BD Expenditures by Cost Category, 2008 – 2012	
Figure 9: KF&BD Expenditure Percentage by Cost Category, 2008 – 2012	26
Figure 10: KF&BD Percentage of Benefits and Taxes, 2008 – 2012	26
Figure 11: KF&BD Summary of Operational Finances, 2008 – 2012	27
Figure 12: KF&BD Debt Summary	
Figure 13: KF&BD Debt Amortization Schedule	
Figure 14: KF&BD Firefighter Pension	29
Figure 15: KF&BD Unfunded LEOFF I Medical/Long-Term Care	
Figure 16: KF&BD CIP Vehicle Replacement, 2012 – 2016	30
Figure 17: KF&BD CIP Equipment Replacement, 2012 – 2016	
Figure 18: Kirkland, Washington, Median Value and Home Sales, 2006 – 2011	31
Figure 19: Unemployment Percentage, 2002 – 2011	32
Figure 20: Unemployment, 2002 – 2011	32
Figure 21: Historical and June to June CPI-W Table, 2002 – 2012	33
Figure 22: Historical and Average CPI-W Graphically, 2002 – 2012	33
Figure 23: CPI-W Forecast Budget Impact, 2012 – 2021	34
Figure 24: TAV Growth Rates, 2013 – 2017	34
Figure 25: Forecast TAV, 2012 – 2017	
Figure 26: KF&BD Revenue Forecast, 2012 – 2017	
Figure 27: KF&BD Expenditure Forecast, 2012 – 2017	36
Figure 28: KF&BD Forecast Summary, 2012 – 2017	37
Figure 29: Administrative and Support Staffing Summary	40
Figure 30: Administration and Support FTEs by Division and Program	41
Figure 31: KF&BD Staffing by Division and Program	42
Figure 32: Position Summary FTEs, Fiscal Year 2007 – 2008 and 2011 – 2012	43
Figure 33: Emergency Operations Staffing	44
Figure 34: Number of Firefighting Personnel Based Upon Level of Risk	46
Figure 35: Service Delivery Infrastructure	48
Figure 36: Points of Deficiency and Community Class	50
Figure 37: KF&BD Grading Schedule, June 1995	50
Figure 38: Minimum Staffing by Unit and Position, January 2012	64
Figure 39: Water District Service Areas	91
Figure 40: Historical FTEs, Fiscal Years 2001 – 2012	100
Figure 41: Historical Percent and Average Change in FTEs, 2001 – 2011	



Figure 42:	Budget to Actual Overtime Cost, Fiscal Years 2008 – 2012	102
Figure 43:	Budget to Actual Overtime by Percentage, Fiscal Years 2008 – 2012	102
Figure 44:	Annual and Average per Capita Cost of Overtime, Fiscal Years 2008 – 2012	103
Figure 45:	Overtime as a Percentage of Wages, Fiscal Years 2008 – 2012	104
Figure 46:	Minimum Staffing by Unit and Position, January 2012	105
Figure 47:	Number of Shifts per Year, Minimum Staffing	105
Figure 48:	Number of Authorized Positions by Shift	106
	Number of Scheduled Shifts by Position per Year	
Figure 50:	Number of Shifts Available Less Minimum Staffing and Leaves per Year	108
Figure 51:	Percentage of Unallocated Shifts Less Minimum Staffing, and Leaves per Year	112
Figure 52:	Total Service Demand, 2005 – 2011	132
Figure 53:	Service Demand by Incident Type, 2005 – 2011	132
Figure 54:	Percentage of Service Demand by Incident Type, September 2010 – August 2011	133
Figure 55:	NFIRS Incident Type, September 2010 – August 2011	134
Figure 56:	Fire Incident Service Demand by Month of Year, September 2010 – August 2011	135
Figure 57:	EMS Incident Service Demand by Month of Year, September 2010 – August 2011	135
Figure 58:	Other Incident Service Demand by Month of Year, September 2010 – August 2011	136
Figure 59:	Service Demand by Day of Week, September 2010 – August 2011	136
Figure 60:	Service Demand by Hour of the Day, September 2010 – August 2011	137
Figure 61:	KF&BD Service Area	138
-	KF&BD Service Area Expanded	
	All Incidents, September 2010 – August 2011	
Figure 64:	Rescue and EMS Incidents, September 2010 – August 2011	143
Figure 65:	Service and Other Calls for Service, September 2010 – August 2011	145
Figure 66:	Fire, Explosion, and Hazardous Materials Incidents, September 2010 – August 2011	147
Figure 67:	Structure Fires, September 2010 – August 2011	148
Figure 68:	Fire Station No. 21 – 4:00, 5:00, 5:30, and 8:00-Minute Travel Time	150
Figure 69:	Fire Station No. 22 – 4:00, 5:00, 5:30, and 8:00-Minute Travel Time	151
_	Fire Station No. 24 – 4:00, 5:00, 5:30, and 8:00-Minute Travel Time	
O	Fire Station No. 25 – 4:00, 5:00, 5:30, and 8:00-Minute Travel Time	
Figure 72:	Fire Station No. 26 – 4:00, 5:00, 5:30, and 8:00-Minute Travel Time	154
Figure 73:	Fire Station No. 27 – 4:00, 5:00, 5:30, and 8:00-Minute Travel Time	155
_	Four-Minute Travel Time Concentration, Career Staffed Fire Stations	
Figure 75:	Eight-Minute Travel Time Concentration, Personnel	159
Figure 76:	Eight-Minute Travel Time Concentration, Fire Engines	161
Figure 77:	Eight-Minute Travel Time Concentration, Battalion Chief and Ladder Truck	163
Figure 78:	Eight Minute Travel Time Concentration, Aid Unit	164
Figure 79:	Eight-Minute Travel Time Concentration, Effective Response Force	166
Figure 80:	Number of Responses by Apparatus, September 2010 – August 2011	168
Figure 81:	UHU (Unit Hour Utilization), September 2010 – August 2011	169
Figure 82:	Apparatus Commitment per Incident, September 2010 – August 2011	170
•	Concurrent Calls, September 2010 – August 2011	
Figure 84:	Average Response Time Frequency, September 2010 – August 2011	173
Figure 85:	Response Time Frequency by Incident Type, September 2010 – August 2011	173

Kirkland Fire & Building Department ~ Kirkland, Washington 2012 ~ Organizational Evaluation, Future Planning, Feasibility of Cooperative Service Delivery, & Organizational Strategic Plan

Figure 86: City of Kirkland Population History, 1900 – 2000	177
Figure 87: City of Kirkland Population History (Table), 2001 – 2011	177
Figure 88: City of Kirkland Population History (Graphic), 2001 – 2011	178
Figure 89: KF&BD Service Area Population, 2008 – 2011	179
Figure 90: Annexation Area Population, 2010 – 2011	179
Figure 91: Annual Percent of Population Change, 2002 – 2010	179
Figure 92: Population Distribution by Age, 2010	180
Figure 93: Housing Occupancy Status, 2010	181
Figure 94: Kirkland Forecast Population, 2012 – 2030	182
Figure 95: Population Forecast Comparison, 2012 – 2030	183
Figure 96: Projected Workload by Incident Type, 2012 – 2030	184
Figure 97: Regional Growth Strategy for Central Puget Sound	186
Figure 98: Kirkland Zoning Map	189
Figure 99: Kirkland Comprehensive Land Use Map	190
Figure 100: City of Kirkland Zoning Classification in Acres	191
Figure 101: Training Division Staffing	
Figure 102: Cooperative Effort Strategies	202
Figure 103: Response Performance by Percentage, 2007 – 2010	215
Figure 104: 90 Percent Targets – Actual versus Target, 2010	216
Figure 105: Response Time – Percent of Calls Meeting Target	
Figure 106: Non-Structure Fire Critical Tasking	
Figure 107: Motor Vehicle Collision with Entrapment Critical Tasking	220
Figure 109: Response Zone Performance Objectives, 0700 and 2200 hours	223
Figure 110: Response Zone Performance Objectives, 2200 and 0700	224
Figure 112: Population Served by Agency	
Figure 113: Firefighters per 1,000 Population	
Figure 114: Breakdown of Personnel and Minimum Staffing Levels	
Figure 115: Percentage of Administrative and Support Personnel to Department Total	
Figure 117: Services and Level Provided by Agency	
Figure 118: Fire Stations per 1,000 Population	
Figure 118: Fire Engines per 1,000 Population	
Figure 119: Ladder Trucks per 1,000 Population	
Figure 120: Total Emergency Responses per 1,000 Population	
Figure 121: Cost per Capita	
Figure 123: Internal Customer Dashboard View	275
Figure 124: External Customer Dashboard View	276



Appendix B: Management Advisory Group, Recommendations and Findings

The City of Kirkland and King County Fire District #41 conducted a Fire and Rescue Efficiency and Effectiveness Study in 2008. Prepared by MAG (Management Advisory Group, INC.), the study has 13 major findings and 12 major recommendations. ESCI reviewed and compared the findings and recommendations from 2008 with 2012 as an element of this study. For findings and recommendations that were found to still be outstanding, ESCI has called those out for discussion by City administration and KF&BD.

(1.4 Major Findings)

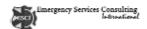
- 1. The high level of EMS responses has the unintended consequence of lowering the level of fire protection.
- 2. Hazardous Materials response language is vague as to the types of responses KF&BD will handle versus a regional response.
- 3. Rescue and extrication language is vague as to the type and level of service provided by KF&BD and subject overlaps the Marine Rescue/Firefighting standard.
- 4. KF&BD is totally dependent upon mutual and automatic aid response for marine rescue/firefighting.
- 5. Measurement of Response Time Standard is flawed and overly ambitious.
- 6. Standard on Effective Response significantly overlaps standard measurement of response time.

(1.5 Major Recommendations)

- 1. Hazardous Materials risk assessment needs to be conducted.
- Marine rescue/firefighting risk assessment needs to be conducted.
- 3. Standard on Effective Response needs to be rewritten to reflect efficient use of staffing levels.
- Measurement of Response Time Standard needs to follow RCW 35.103 definitions.
- 5. City Attorney should review KF&BD "standards" for added liability for the city. Recommend objectives be used instead of standards.

(Body of Work, Findings and Recommendations)

- 1. Reduce EMS response crew size from three to two (page 5-3).
- 2. Modify structure fire effective response criteria to reflect efficient use of staffing levels (page 5-5, 6, & 7).
- 3. Firefighter safety not compromised by staffing levels, but can be a reflection of a lack of safety-awareness by personnel (page 5-7, & 8).



⁸⁹ Findings and recommendations are paraphrased.

- 4. Improve existing call-back system for greater efficiency (page 5-11).
- 5. Conduct commodity flow study for Kirkland or region⁹⁰ (page 5-12).
- 6. Measurement of response time "from time of 9-1-1 call" is flawed (page 5-21).
 - a. Five minute response for ALS not appropriate for Kirkland (page 5-21).
 - b. Code Yellow responses should be reconsidered as a component of emergency medical services (page 5-21).
- 7. Five minute response time for four firefighters is beyond KF&BD capabilities (page 5-21).
- 8. "Initial arriving manpower" confusing term and conflicts with target response time objectives report. Six minutes and ten minutes are used respectively (page 5-21).
- 9. Recommends that response time is measured at the receipt of alarm at the fire station (page 5-22).
- 10. Recommends that one unit, staffed with two BLS personnel responds to medical emergencies (page 5-23).
- 11. KF&BD failed to meet response time standard 50 percent of the time from 2004-2007 (page 5-27).

⁹⁰ Has King County conducted a commodity flow study?



-

Appendix C: Summary Table of Short and Mid-Term Recommendations

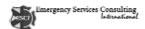
***	Recommendation 1: Amend job descriptions to accurately reflect roles and expectations
	for administration and support staff. (Implementation Order 1)51
*	Recommendation 2: Create a budget category for administrative services for the fire and
	for building departments. (Implementation Order 7)51
**	Recommendation 3: Increase emergency operations by adding a BLS aid unit staffed
	between 8:00 AM and 8:00 PM to maintain adequate personnel for a moderate risk fire
	event. (Implementation Order 5)51
*	Recommendation 4: Request WSRB to conduct an evaluation of the fire and
	suppression capabilities of KF&BD. (Implementation Order 8)51
*	Recommendation 5: Annually conduct a detailed analysis of revenue versus expenditure
	to validate that EMS transportation activity is meeting stated goals established by the
	City. (Implementation Order 6)51
*	Recommendation 6: Add a Medical Service Administrator (MSA) at the rank of division
	chief to manage the medical division. (Implementation Order 2)51
*	Recommendation 7: Bill for EMS transport when responding and transporting patients
	outside of the City of Kirkland. (Implementation Order 4)51
*	Recommendation 8: Add one FTE administrative assistant for EMS and one FTE
	financial analyst to administrative support functions. (Implementation Order 3)51
*	Recommendation 9: KF&BD review and validate the mission, vision, and values
	following completion of the 2012 strategic plan. (Implementation Order 1)62
*	Recommendation 10: Display the adopted mission, vision, and organizational values in
	City Hall and fire department facilities. (Implementation Order 2)62
*	Recommendation 11: Outsource development and maintenance of Administrative Rules
	and Standard Operating Guidelines to a third party. Development and maintenance of
	Administrative Rules and Standard Operating Guidelines should include involvement of
	the City human resource department. (Implementation Order 1)78
*	Recommendation 12: Develop a succession plan to ensure employees are recruited and
	developed to fill each key role within the organization. (Implementation Order 11)79
*	Recommendation 13: Prioritize media messaging. Use "Currently Kirkland" and other
	media outlets as a tool to leverage the reach and impact of fire department public
	information and education messages. (Implementation Order 2)79
*	Recommendation 14: Anticipate controversies or events which may generate media or
	community interest and develop a media or messaging plan in advance. (Implementation
	Order 7)
*	Recommendation 15: Develop a proactive message file where the subject is not time-
	sensitive, but timely release may position the message to its greatest advantage
	(Implementation Order 12)79
*	Recommendation 16: Develop interactive content for the fire department website: citizer
	training videos and downloadable documents (fire escape plans, preparedness, and self-
	help checklists). (Implementation Order 9)79
*	Recommendation 17: Update existing content on the fire department website and
	schedule regular maintenance. (Implementation Order 8)79
*	Recommendation 18: Administer a stress test at the time of hire and periodically or
	incumbent employees/members based on age and risk factors. (Implementation Order
	5) 79
*	Recommendation 19: Develop a procedure and policy for reporting and retaining al
	employee exposure records. (Implementation Order 4)79
*	Recommendation 20: Aggregate like item equipment purchases with a total value of
	\$5,000 or more and include in the City's annual budget. (Implementation Order 12) 79

2012 -	Organizational Evaluation,	Future Planning							an
2012 ~	Organizational Evaluation,	i uture i iairiirig,	i casibility of	Cooperative	Service De	iiveiy, a	Organizational	Strategic i ia	ווג

*	Recommendation 21: Develop, validate, and employ a physical evaluation process that is in traleted (Implementation Order 6)
*	is job related. (Implementation Order 6)
**	hire/appointment. (Implementation Order 2)79
**	Recommendation 23: Produce a live monthly informational broadcast meeting between
	the fire chief and department personnel. (Implementation Order 10)79
*	Recommendation 24: Provide a fire service-related occupational and health program
	(Implementation Order 3)79
**	Recommendation 25: Develop and implement a plan outlining how volunteers will be
	used and managed during emergency events. (Implementation Order 5)88
*	Recommendation 26: Identify a location and develop a dedicated EOC; apply for a
	matching grant from the Washington EMD Emergency Operations Center Gran
	Program (requires a 25 percent local match). (Implementation Order 4)88
*	Recommendation 27: Seek potential partner agencies to provide contracted emergency
	management services from KF&BD. (Implementation Order 7)88
**	Recommendation 28: Complete and publish the COOP and COG plans. (Implementation
	Order 2)
*	Recommendation 29: Develop a Hazard Identification and Vulnerability Assessment and
	a Hazard Mitigation Plan. Submit to King County for inclusion as an annex to the County
	plan. (Implementation Order 3)88
**	Recommendation 30: Involve KF&BD and other City of Kirkland employees in
	community-based emergency exercises at least annually. (Implementation Order 6)88
**	Recommendation 31: Hire a full-time City emergency manager, shifting daily
	responsibilities from the Deputy Chief of Administration to the emergency manager
	(Implementation Order 1)88
*	Recommendation 32: Integrate KF&BD fire prevention records management with the
	EnerGov RMS software used by the Building Division. (Implementation Order 3)96
**	Recommendation 33: Conduct a fire and life-safety inspection of all inspectable
	occupancies in the next 12 months. If necessary use emergency services personnel to
	complete inspections. (Implementation Order 1)96
*	Recommendation 34: Develop and adopt a plan for the maintenance, repair, and flow
	testing of all fire hydrants in the City of Kirkland. (Implementation Order 2)96
**	Recommendation 35: Develop and implement a self-inspection program for light risk
	occupancies where the occupants have demonstrated regular code compliance
	(Implementation Order 13)96
**	Recommendation 36: Acquire and deploy electronic tablet devices for field data entry
	and rapid downloading to the records management system. (Implementation Order 4).96
**	Recommendation 37: Develop and adopt a plan to actively solicit feedback from a
	representative sample of recipients of KF&BD inspection and enforcement services
	(Implementation Order 10)96
*	Recommendation 38: Adopt a local residential sprinkler ordinance for new residentia
	construction. (Implementation Order 5)96
*	Recommendation 39: Form a regional partnership to develop and deliver juvenile
	firesetter intervention and counseling. (Implementation Order 12)96
*	Recommendation 40: Develop, adopt, publish, and implement a KF&BD Public
	Education Plan. (Implementation Order 6)
*	Recommendation 41: Form regional partnerships for the development and deploymen
	of public fire and life safety education initiatives; also rotate operations personnel to
	deliver a structured curriculum. (Implementation Order 7)96



*	Recommendation 42: Rotate emergency operations personnel to a temporary duty
	assignment as a public educator to deliver the public education curriculum
	(Implementation Order 11)97
**	Recommendation 43: Employ electronic information media from the United States Fire
	Administration and NFPA for linking or posting and making available on the Kirkland
	website. (Implementation Order 9)
*	Recommendation 44: Create partnerships with other public agencies and private sector
	companies to provide public education and information to the citizens of Kirkland
.*.	(Implementation Order 8)
**	accurately reflect current daily minimum staffing level. (Implementation Order 22)208
*	Recommendation 46: Maintain a minimum per shift of two personnel (swing personnel)
•	at firefighter EMT, two at lieutenant, and two at the captain rank with the qualifications
	and appropriate certifications to fill vacancies or step-up. (Implementation Order 24) .208
*	Recommendation 47: Within the limits of the collective bargaining agreement use
	personnel at the captain and lieutenant rank to work down to fill vacancies
	(Implementation Order 30)
*	Recommendation 48: Periodically (annually or more frequently) review minimum staffing
	levels and options for filling vacancies. (Implementation Order 25)208
**	Recommendation 49: Periodically review sick leave and work-related injuries for patterns
	and opportunities to reduce occurrences. (Implementation Order 26)208
**	Recommendation 50: Develop an internal CIP for the maintenance and replacement of
	KF&BD capital equipment. (Implementation Order 27)208
*	Recommendation 51: Perform an energy audit on all fire stations and follow
*	recommended energy efficiency measures. (Implementation Order 35)
***	Recommendation 52: Replace apparatus using a combination of age, mileage (for gas powered units), engine hours (for diesel apparatus) and condition. (Implementation
	Order 34)208
0	If an apparatus meets age and mileage or engine hour thresholds, use the condition as
0	the determining factor when considering replacement
0	Condition factors such as maintenance records and cumulative maintenance costs
	should help determine if a unit is actually ready to be replaced208
0	If a unit has not met the age and mileage or engine hour thresholds but the condition
	factors are alarmingly high, consider early replacement208
*	Recommendation 53: Store PPE in a separate, well ventilated room. (Implementation
	Order 6)208
*	Recommendation 54: Monitor mutual and automatic aid for equity. (Implementation
	Order 28)
*	Recommendation 55: Make upgrades to incident reporting RMS software to eliminate
	erroneous data entries. (Implementation Order 9)
**	Recommendation 56: Track failure rate of units to respond to incidents in their first due area by fire station and apparatus
*	Recommendation 57: Expand Chapter 21.35A of the Kirkland Municipal Code to include
***	response by KF&BD to repeat false of malicious fire alarms. (Implementation Order 21)
	209
*	Recommendation 58: ICS training is currently at the federal minimum. Department
*	minimum should be IS-100, IS-200, & IS-700 and IS-800b for all response personnel
	and IS-300 & IS-400 for all chief officers. (Implementation Order 23)209
*	Recommendation 59: Create a formal mentoring program to develop for officers to use
	with subordinates. (Implementation Order 31)



*	Recommendation 60: Formalize the East Metro Training Group via an interlocal
	agreement between participating agencies, with Kirkland Fire & Building Department as
	a permanent member. (Implementation Order 7)209
**	Recommendation 61: Identify training competencies in writing, teach, train, test, and
	evaluate personnel regularly by the training division in concert with shift battalion chiefs.
	(Implementation Order 8)
*	Recommendation 62: Develop a consistent program for training hazardous materials
	technicians. (Implementation Order 32)209
*	Recommendation 63: Dedicate a reserve engine to the training division, preferably a unit
	that can be shared by agencies. (Implementation Order 22)
*	Recommendation 64: Develop a joint recruit academy with other members of the EMTC.
	(Implementation Order 29)
*	Recommendation 65: Maintain the practice EMTC recruit training or use the practice of
	sending recruits to either Bates or North Bend, augmented with agency specific training.
	(Implementation Order 10)
*	Recommendation 66: In the absence of a combined EMTG training manual, KF&BD
	should develop its own training manual, preferably in concert with the other members of
	the EMTG. (Implementation Order 20)
*	Recommendation 67: Refine and expand goals and purpose statements of training
	objectives. (Implementation Order 11)209
*	Recommendation 68: Establish a minimum number of annual training hours an individual
	or company is required to complete. (Implementation Order 19)209
*	Recommendation 69: Conduct at a minimum two night drills per shift per year that
Ť	involve all fire suppression personnel. (Implementation Order 18)
*	Recommendation 70: Develop lesson plans for core competencies requiring instructors
Ť	to follow plans when instructing. (Implementation Order 14)
*	Recommendation 71: Establish a minimum requirement for annual company and
	individual training evaluations. Include shift battalion chief involvement in annual
	evaluations. (Implementation Order 5)
*	Recommendation 72: Include company level training activities by subject in the RMS.
	(Implementation Order 16)
*	Recommendation 73: Integrate pre-fire incident planning of community target hazards in
	training activities. (Implementation Order 17)210
*	Recommendation 74: Refine and expand goals and purpose of training objectives.
	(Implementation Order 13)210
*	Recommendation 75: Jointly construct and staff a new fire station with Northshore FD.
	The fire station should be located in an area to serve the Finn Hill neighborhood and
	Northshore FD. (Implementation Order 3)210
*	Recommendation 76: Develop a comprehensive evaluation program to assess all
	aspects of the EMS system. (Implementation Order 12)210
*	Recommendation 77: Provide Advanced Life Support services within the City of Kirkland
	via the King County Medic One program. (Implementation Order 1)210
*	Recommendation 78: Participate in the King County Medic One Community Medical
	Technician (CMT) pilot. (Implementation Order 2)
*	Recommendation 79: Modify the EMS response protocol of sending three responders to
-	medical incidents. Redeploy with dedicated staffing of two-person aid units, or single
	person quick response unit for low priority EMS incidents. (Implementation Order 3)210
*	Recommendation 80: Expand the current partnership with the King County Sheriff's
	Marine Unit and the Seattle Fire Department to provide a joint, coordinated response to
	marine firefighting and rescue incidents. (Implementation Order 4)210



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	mendation 81: Develop a capita	•	•	
	No. 25 (Finn Hill South) and Fire	•	, , ,	
Order 3	3)			210
	mendation 82: Develop a long-			
	(Implementation Order 9)			
	mendation 83: Define and report	\ I	. , 0	· .
	where response time objectives	9		
•	able consequences and steps to	achieve compliand	ce. (Implementation C	Order 7)
227				
	mendation 84: Determine the car		•	
	m assignment deployments. Dev			
	ercent. (Implementation Order 6).			
Recomn	mendation 85: Adopt a two tie	ered response tim	e objectives for fire	, EMS,
hazardo	ous materials, technical res	scue, and spec	cialized rescue in	cidents.
(Implem	nentation Order 3)			227
Recomn	mendation 86: Risk assessment	RMS should be m	nanaged by the KF&I	BD Fire
Preventi	ion Division. (Implementation Orc	ler 8)		227
Recomn	mendation 87: Develop and ad	opt response time	intervals, benchma	rk, and
review a	at a minimum annually. Respor	ise time benchmar	ks should be monitor	red and
analyze	d to determine factors causing	trends including	increased service d	lemand,
•	ent alarms, and staffing levels. (Ir	•		
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	ement benchmarks that meet nati		•	
	mendation 89: Adopt turnout time	,	•	,
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	mendation 90: Integrate the New			

emergency management plans, records, and reports. (Implementation Order 4)......227

Appendix D: Summary of Recent RFA (Regional Fire Authority) Legislation

SB 6470 allows cities to assess a benefit charge if it annexed part or all of a fire district from 2006 forward. Until this bill was passed, a city could not assess a benefit charge unless it was as part of an RFA. A benefit charge can be levied up to 60 percent of the *operating budget* of a fire agency. That is not 60 percent of its taxing authority, but 60 percent of its operating budget (excluding capital).

SB 6470-S.E - Digest (Digest as Enacted)

Authorizes certain cities and towns to fix and impose a benefit charge, for enhancement of fire protection services, on personal property and improvements to real property.

HB 1854 allows an RFA to annex another fire jurisdiction. I didn't know much about this one, but reading the bill through, it appears to allow an RFA to annex other agencies without going through another RFA formation process (establish a plan, public hearings, etc.).

HB 1854-S – Digest (Digest as Enacted)

Establishes a process through which a fire protection jurisdiction may be annexed by a fire service protection authority. Authorizes the transfer of certain fire protection and emergency services from annexed fire protection jurisdictions to annexing regional authorities. Reduces the property tax levy authority of a fire protection district, city, town, Indian tribe, or port district that is annexed into a RFA (regional fire protection service authority).

HB 1731 allows an RFA to establish RFA commissioners (as opposed to using the commissioners and council members from the previously separate agencies) or a combination of the two. It has to be addressed in the RFA Plan. Also authorizes the RFA to establish RFA commissioner districts, roughly equal in population.

HB 1731-S.E – Digest (Digest as Enacted)

Addresses the formation, operation, and governance of regional fire protection service authorities.

Energency Services Consulting

Appendix E: History and Formation of the Kirkland Fire Department

(The formation and chronological history of the Kirkland Fire Department was drafted from information graciously provided to ESCI by KF&BD Captain Bill Hoover. ESCI thanks Captain Hoover for his valuable assistance.)

Humble Beginnings

On June 6, 1889 at approximately 2:30 p.m., a worker in a cabinet shop in Seattle was heating glue over a gasoline fire when the glue boiled over and ignited. The fire spread to the wood chips and turpentine covering the floor. The resulting fire was visible from Kirkland. Alarmed at the sudden realization they were at risk, business owners in Kirkland purchased fire buckets and organized a fire brigade. This confederation of businesses established an agreed upon method of fighting fires in 1890, and the first organized firefighting effort in Kirkland was born.

In 1909, the City of Kirkland spent \$95 to purchase a hand pulled firefighting hose cart. A siren was also purchased and installed on the bank building, which was set off by the telephone operator to notify fire brigade members of a fire. A "fire shed" was located next to a livery stable and the first brigade member to arrive would attach a horse to the hose cart.

In 1916, the Kirkland Hotel caught fire. Armed with only the hose cart, the brigade members fought valiantly, but the large wooden structure was quickly consumed. They did manage to prevent the fire from spreading to adjacent buildings.

Kirkland Fire Department's Official Formation

On June 21, 1923, Kirkland's first official volunteer fire department was formed. Dr. R.R. Ruffin was named Kirkland's first fire chief. At the urging of the insurance officials at the Washington Surveying and Rating Bureau, Chief Ruffin had fire hydrants installed to improve the insurance rates for the community. That same year, a garage fire occurred at McIntyre Buick. A previously damaged vehicle parked in the garage caught fire. Kirkland firefighters responded and had the fire out in 15 minutes, limiting the damage to \$3,000.

Sometime thereafter, Seattle sold a converted 1924 Packard truck to the Kirkland Fire Department, which became Kirkland's first motorized "fire engine." It held two 60-gallon chemical tanks, 100 feet of attack hose, 500 feet of hydrant hose, and ladders. It was not until 1929, however, that Kirkland obtained its first commercially designed and built fire engine, a 1929 GMC pumper. The unit is still owned by Kirkland as an antique pumper and is housed at Fire Station No. 22 in Houghton.

Kirkland Neighbors Form, then Join

On September 2, 1949, residents north of the city voted 235 in favor and 54 against the formation of King County Fire District #41. Kirkland Fire Chief Leonard Paulson supported the formation since Kirkland Fire Department was routinely responding out of the City, but there was no funding to support such activities. Bob Gollofon was selected to be the new districts' first fire chief. The districts' first fire engine was acquired shortly thereafter from an eastern Washington fire department and housed in a garage loaned to the district. Located at 13000 84 Ave NE, the building still stands at that location today.

South of the City of Kirkland, the town of Houghton appointed Harold Mehrer fire chief in 1962. In 1968, Houghton tried but failed to annex Kirkland. The following year, Kirkland annexed Houghton and Chief Mehrer stepped down. Also in 1969, Chief Paulson was replaced by Bob Ely, the first paid employee and first paid fire chief of the Kirkland Fire Department. A year later, King County Fire District #41 contracted for fire protection from the City of Kirkland. In 1970, all three fire agencies were operating as one department, referred to as the "Greater Kirkland Fire Department".

Kirkland Fire Department Today

On May 1, 2009, Kevin Nalder was appointed Director of the Kirkland Fire and Building Department. On June 1, 2011, the remainder of King County Fire District #41 and portions of King County Fire District #34 (Redmond) and King County Fire District #36 (Woodinville) were annexed into the city. These annexations were collectively referred to as the Finn Hill – Juanita – Kingsgate annexation. Over 30,000 new residents were added to the city population in that annexation, bringing the population of the service area to approximately 80,505 citizens spread over almost 18 square miles. The department employs 101.5 firefighters, administrators and support staff.

The department serves its residents from five active fire stations and one station staffed at night with volunteers for medical responses only. The stations have a total of 19 firefighters on duty minimum, operating and cross-staffing five fire engines, six medical aid units and one ladder truck. The department handled 7,380 responses in the last full year of data collection ending August, 2011.

Appendix F: Comparable Providers

In order to illustrate a relative comparison of deployment assets, ESCI surveyed five other Washington emergency service providers: Bellingham, Everett, Redmond, and Yakima fire departments, and Kent Fire Department RFA (Regional Fire Authority). Each of the surveyed agencies provides services to communities of similar size and demographics as those served by KF&BD. The following figures provide a comparison of the number of fire stations, engines, and ladder (aerial) trucks (per 1,000 population) provided by each fire agency (In this and other similar benchmarks, Kirkland is compared with other cities serving between 50,000 and 99,999 residents).

A word of caution is appropriate: each comparable by itself is only informative and should be viewed individually as an interesting fact. The collected data begins to tell the story of how KF&BD compares with other fire and EMS providers in the area.

We begin the comparison with basic statistical information about each fire agency.

Population Served

The following figure is a side-by-side comparison of the population served by each fire department in the survey. The population served by KF&BD is approximately 80,505. The average population served by the six comparable fire departments is 85,146.

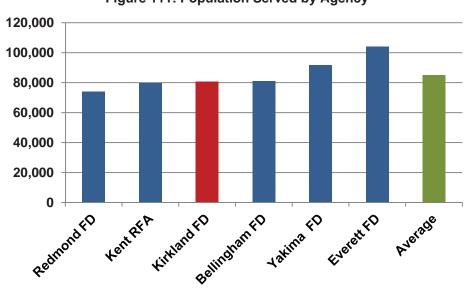


Figure 111: Population Served by Agency

Staffing

Figure 112 compares the number of emergency operation (firefighters and EMS) personnel serving each of the communities per 1,000 population. This comparison is considered to be an interesting statistic but it is important to remember that the services provided by each fire department are variable.

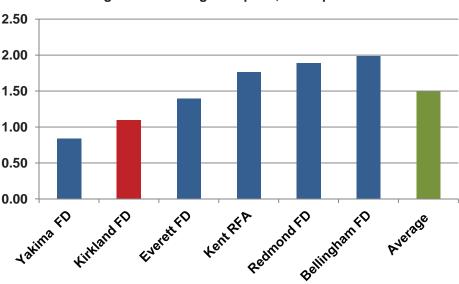


Figure 112: Firefighters per 1,000 Population

There are 1.09 suppression and EMS personnel per 1,000 for the population served by KF&BD, 73.2 percent of the average comparable communities for fire departments serving similar populations.

The following figure compares the total number of personnel, administrative, support, and prevention staff, operational personnel, and minimum on-duty staffing by six fire departments.

Bellingham Yakima Redmond **Everett** Kent **Division** FD FD RFA FD FD Career Personnel 188.0 148.0 206.0 159.0 103.5 87.0 Administrative. Support, and 28.0 16.0 29.7 9.0 15.5 13.5 Prevention Career Suppression 160.0 132.0 140.0 78.0 144.0 90.0 Minimum On-duty 33.0 28.0 30.0 19.0 24.0 19.0

Figure 113: Breakdown of Personnel and Minimum Staffing Levels



The following figure compares the percent of administrative and support personnel to the total number of personnel on each department.

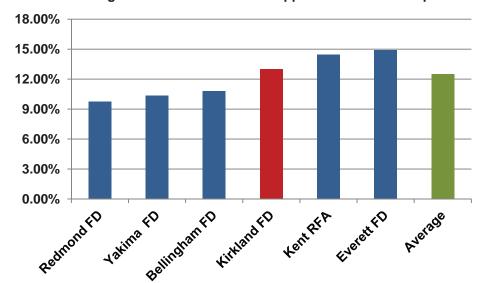


Figure 114: Percentage of Administrative and Support Personnel to Department Total

KF&BD has 13.5 FTE administrative and support positions, equaling 13.04 percent, as compared to the total number of employees in the Department. The ratio is slightly higher than found in Kent and Everett, and 2.25 percent above the average for all agencies.

Services Provided

The table below lists the type and level of service provided by each of the departments.

Figure 115: Services and Level Provided by Agency

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Service	Redmond FD	Yakima FD	Kent RFA	Bellingham FD	Everett FD	Kirkland FD
Fire Suppression	Yes	Yes	Yes	Yes	Yes	Yes
Hazardous Material	Yes	Yes	Yes	Yes	Yes	Yes
EMS	Yes	Yes	Yes	Yes	Yes	Yes
EMS BLS	Yes	Yes	Yes	Yes	Yes	Yes
EMS ALS	Yes	No	No	Yes	Yes	No
EMS Transport	Yes	No	No	Yes	Yes	Yes
Fire Prevention	Yes	Yes	Yes	Yes	Yes	Yes
Public Education	Yes	Yes	Yes	Yes	Yes	Yes
Emergency Management	No	Yes	No	No	Yes	Yes
Technical Rescue	No	Yes	Yes	Yes	Yes	Yes
USAR Team Membership	Yes	Yes	Yes	No	No	No

Resource Comparison

The following figures compare the number of fire stations, engines, and ladder (aerial) trucks (per 1,000 population) provided by each fire agency.

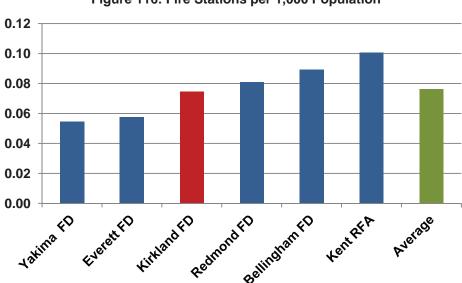


Figure 116: Fire Stations per 1,000 Population

Kirkland FD maintains slightly fewer fire stations per 1,000 residents (97.7 percent) than the average of comparable regional communities and 85.7 percent of the national median⁹¹ for fire departments serving similar populations.

Figure 117 compares the number and average fire engines (pumpers) per 1,000 population for the six fire departments.

⁹¹ NFPA U.S Fire Department Profile, Fire Analysis and Research Division, 2010.



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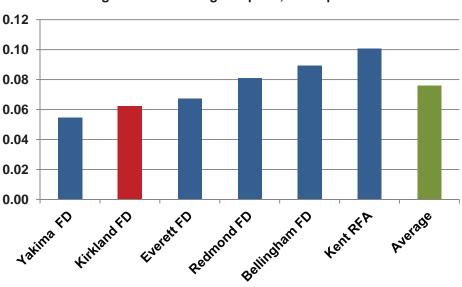


Figure 117: Fire Engines per 1,000 Population

There are 0.62 pumpers per 1,000 for the population served by KF&BD, 81.9 percent of the average regional comparison communities and 71.4 percent of the national median of 0.87 per 1,000 for fire departments serving similar populations.

ESCI next compared the number and average ladder trucks (aerials) per 1,000 population for the six fire departments.

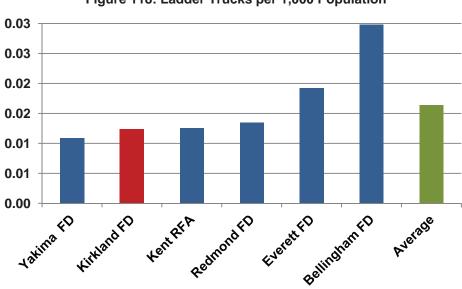


Figure 118: Ladder Trucks per 1,000 Population

There are 0.012 ladder trucks per 1,000 for the population served by KF&BD, 75.7 percent of the average regional comparison communities, and 50.0 percent of the national median for fire

departments serving similar populations. The national median for fire departments serving between 50,000 and 99,999 populations is 0.030 per 1,000 (two ladder trucks).

Emergency Response Activity

The following chart compares the total emergency responses per 1,000 population in 2011. This illustration gives the reader a sense of the relative number of responses between the area emergency response agencies.

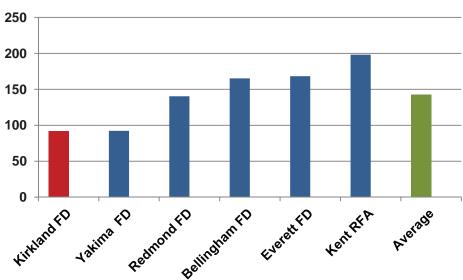


Figure 119: Total Emergency Responses per 1,000 Population

As Figure 119 shows, requests for service occur at a lesser rate per 1,000 population in Kirkland than in the comparable communities. Factors that will affect the incident rate include the fact that the fire departments provide differing levels of service and differences in the service area demographics for each community. Record keeping practices may also affect the comparison.

In Figure 120, costs of fire protection based on the 2012 operating budget and are compared on a per-capita basis:



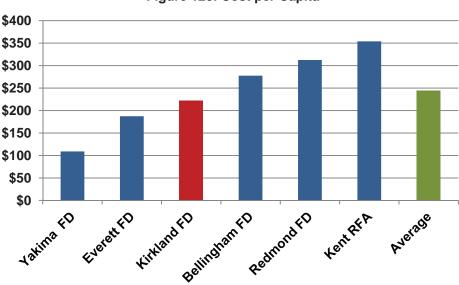


Figure 120: Cost per Capita

The cost per capita of fire and emergency services in Kirkland was \$222 in 2011, slightly less than the average of \$244 for the six fire departments.

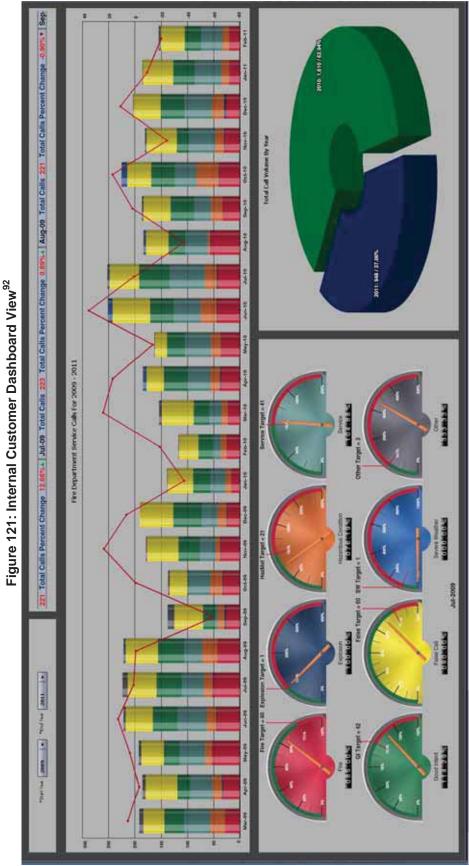
Appendix G: Summary Table of Stakeholder Interviews

Person	Date	Affiliation or Group
1. Internal		
Bob Sternoff	January 3, 2012	City of Kirkland
1. Bob Sterrion	January 3, 2012	City Councilor
2. Penny Sweet	January 3, 2012	City of Kirkland
	, , , , , , , , , , , , , , , , , , , ,	Deputy Mayor
3. Toby Nixon	January 3, 2012	City of Kirkland
·		City Councilor City of Kirkland
4. Kurt Triplett	January 3, 2012	City of Kirkland City Manager
		City of Kirkland
5. Amy Walen	January 3, 2012	City Councilor
6. E-Board	January 4, 2012	IAFF Executive Board
7. Joan McBride	January 4, 2012	City of Kirkland
71 COUNTINGENIUS	- Carraary 1, 2012	City Councilor
8. Doreen Marchione	January 4, 2012	City of Kirkland
		City Councilor City of Kirkland
9. Dave Asher	January 4, 2012	City Of Kirkland City Councilor
10 T DIW	1 0010	Kirkland Fire & Building Department
10. Tom Phillips	January 4, 2012	Building and Construction Official
11. Tom Jensen	January 4, 2012	Kirkland Fire & Building Department
11. Tom Jensen	January 4, 2012	Building and Construction Official
12. Mark Jung	January 5, 2012	Kirkland Fire & Building Department
maint saing	0000	EMS Officer
13. C-Shift crew members	January 5, 2012	Kirkland Fire & Building Department C-Shift
		City of Kirkland,
14. Tracey Dunlap	January 19, 2012	Director of Finance and Administration
45 1 1	1 10 0010	City of Kirkland, Director of Human Resources
15. James Lopez	January 19, 2012	& Performance Management
16. Bill Hoover	January 20, 2012	Kirkland Fire & Building Department
10. Bill 1100vei	January 20, 2012	Captain
17. A-Shift crew members	January 3, 2012	Kirkland Fire & Building Department
	, , ,	A-Shift, Station 26
18. Dave Walker	January 3, 2012	Kirkland Fire & Building Department Assistant Fire Marshal
		Kirkland Fire & Building Department
19. Jim Crowe	January 3, 2012	Deputy Fire Marshal
20. Paul Stewart	January 2, 2012	Kirkland Fire & Building Department
20. Paul Stewart	January 3, 2012	Deputy Planning Director
21. Desirre Goble	January 3, 2012	Kirkland Fire & Building Department
		Planner
22. Teri Wallace	January 4, 2012	Kirkland Fire & Building Department Administrative Staff
		Kirkland Fire & Building Department
23. Audrey Martin	January 4, 2012	Administrative Staff
24 Katharina Diritah	Januari 4, 0040	Kirkland Fire & Building Department
24. Katharine Durish	January 4, 2012	Administrative Staff
25. Helen Ahrens-Byington	January 4, 2012	Kirkland Fire & Building Department
	-	Deputy Fire Chief
26. Battalion Chiefs	January 5, 2012	Kirkland Fire & Building Department



Person	Date	Affiliation or Group
27. B-Shift crew members	January 4, 2012	Kirkland Fire & Building Department B-Shift
28. Marie Stake	January 5, 2012	Kirkland Fire & Building Department Communications Specialist
2. External		
1. Kevin Donnelly	January 5, 2012	Redmond Fire Department Fire Chief
2. Michael Eisner	January 5, 2012	Bellevue Fire Department Fire Chief
3. Mark Risen	January 5, 2012	Bellevue Fire Department Deputy Chief
4. Chris Tubbs	January 4, 2012	Mercer Island Fire Department Fire Chief
5. Jim Torpin	January 5, 2012	Northshore Fire Department Fire Chief
6. Metro Fire Training Group	January 5, 2012	East Metro Training Group
7. Kim Bullen	January 3, 2012	King County County Administrator
8. Bob Van Horne	January 5, 2012	Bothell Fire Department Fire Chief

Appendix H: Dashboard View Examples



⁹² Detroit, Michigan, Fire Department EOC Dashboard Angel's Night Operation, view of fire incidents, FireView™ retrieved August 17, 2012 http://info.theomegagroup.com/blog/bid/134307/FireView-Dashboard-s-Sudden-Impact-on-Detroit-Fire-Department.



Page 275

Figure 122: External Customer Dashboard View 93



93 City website, City of Adrian, Michigan, retrieved August 17, 2012.

