

Ramsey, Nowthen, St. Francis,
Oak Grove, and Bethel
Minnesota

Feasibility Study for Shared Fire and
Emergency Services
Revised

June 2013



Ramsey, Nowthen, St. Francis, Oak Grove, and Bethel

Minnesota

Feasibility Study for Shared Fire and Emergency Services

Winter/Spring 2013

Prepared By:

Lane Wintermute

Kent Greene

Rob Strong

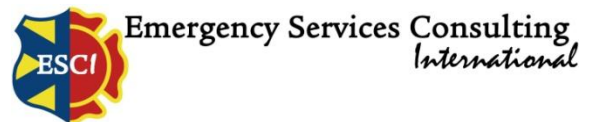


Table of Contents

Table of Figures	iii
Acknowledgements.....	v
Executive Summary.....	1
Section I – Evaluation of Current Conditions	9
Organization Overview	9
Capital Assets and Capital Improvement Programs.....	25
Future Apparatus Serviceability.....	36
Staffing and Personnel Management	39
Service Delivery and Performance.....	48
Demand.....	48
Distribution	54
Performance	61
Mutual and Automatic Aid Programs	66
Support Programs	69
Section II – Opportunities for Cooperative Efforts	81
General Partnering Strategies	81
Functional Consolidation	81
Operational Consolidation	81
Legal Unification	82
Governance Options and Strategies	84
Status Quo.....	84
Fire District through a Joint Powers Agreement.....	84
Fire District with Taxing Authority	96
Consolidation under the Single City and Contracting Services.....	97
Future Facility and Deployment Considerations.....	98
Options for Shared Services	100
Baseline Budget Determination.....	100
Baseline Personnel.....	101
Operational Cooperative Effort Alternatives	104
Functional Cooperative Efforts Strategies.....	109
Enhanced Use of Mutual and Automatic Aid.....	109
Pre-Incident Planning.....	111
Regionalized Incident Command	112
Administrative and Support Services.....	113
Shared Health and Safety Programs	114
Capital Replacement Planning	115
Apparatus and Equipment Purchasing	116
Shared Recruitment and Retention Efforts	117
Regionalized Training Opportunities	118
Regionalized Fire Prevention and Public Education	120
Unification of Standard Operating Guidelines.....	122
Findings, Recommendations and Plan of Implementation.....	123
Findings and Recommendations.....	123
Plan of Implementation	123

Conclusion131

Table of Figures

Figure 1: Comparison of Land Area Covered (square miles)	11
Figure 2: Comparison of Populations Served.....	12
Figure 3: Comparison of Physical Resources to Regional Benchmarks.....	12
Figure 4: Summary of Governance and Lines of Authority Elements.....	13
Figure 5: Summary of Foundational Policy Document Elements	15
Figure 6: Summary of Organizational Design Elements.....	16
Figure 7: Historical Budget - BFD	17
Figure 8: 2012 Budget Distribution - BFD	18
Figure 9: Historical Budget - OGF D	18
Figure 10: 2012 Budget Distribution - OGF D	19
Figure 11: Historical Budget - RFD	20
Figure 12: 2012 Budget Distribution - RFD	20
Figure 13: Historical Budget - SFFD.....	21
Figure 14: Budget Distribution 2012 - SFFD.....	22
Figure 15: Comparisons of Cost per Capita for Fire Protection and Emergency Services	23
Figure 16: Summary of Relief Association Benefits	24
Figure 17: Fire Relief Association Net Assets.....	24
Figure 18: Capital Assets	25
Figure 19: Ramsey Station 1.....	26
Figure 20: Ramsey Station 2.....	27
Figure 21: Nowthen Fire Station (Ramsey Station 3).....	28
Figure 22: Oak Grove Station 1	29
Figure 23: Oak Grove Station 2	30
Figure 24: Bethel Fire Station	31
Figure 25: St. Francis Fire Station.....	32
Figure 26: Ramsey FD Major Apparatus	34
Figure 27: Nowthen FD Major Apparatus	34
Figure 28: Oak Grove FD Major Apparatus.....	35
Figure 29: Bethel FD Major Apparatus.....	35
Figure 30: St. Francis FD Major Apparatus.....	36
Figure 31: Capital Replacement Planning Summary.....	37
Figure 32: Capital Replacement Planning Summary.....	38
Figure 33: Career Personnel.....	40
Figure 34: Paid-on-Call Personnel.....	40
Figure 35: Comparison of Personnel per 1,000 Population.....	41
Figure 36: Historical Average Staffing Performance.....	41
Figure 37: Summary of Application and Recruitment Elements.....	43
Figure 38: Summary of Testing, Measurement, and Promotion Elements	44
Figure 39: Summary of Member Retention Efforts and Programs Elements	46

Figure 40: Total Service Demand by Department (2011-2012)	48
Figure 41: Service Demand by Incident Type (2011-2012)	49
Figure 42: Service Demand by Incident Type (2011-2012) without Medical Responses	50
Figure 43: Service Demand by Month (2011-2012).....	50
Figure 44: Service Demand by Month (2011-2012) without Medical Responses	51
Figure 45: Service Demand by Day of Week (2011-2012)	51
Figure 46: Service Demand by Day of Week (2011-2012) without Medical Responses.....	52
Figure 47: Service Demand by Hour of Day (2011-2012)	52
Figure 48: Service Demand by Hour of Day (2011-2012) without Medical Responses	53
Figure 49: Geographic Service Demand.....	54
Figure 50: Four, Eight and 12-Minute Travel Capabilities.....	55
Figure 51: Service Demand Coverage by Travel Time.....	56
Figure 52: Representative Insurance Premiums by Fire Protection Class	57
Figure 53: 1.5-Mile Engine and 2.5-Mile Aerial ISO Travel Distance Coverage	59
Figure 54: 1.5 Mile Engine and 2.5 Mile Aerial ISO Travel Distance Statistics.....	59
Figure 55: Five-Mile ISO Distance Coverage	60
Figure 56: NFPA 1720 Response Performance Recommendations	63
Figure 57: Response Time Performance, 2012	64
Figure 58: 2012 Response Time by Hour of Day - BFD	64
Figure 59: 2012 Response Time by Hour of Day - OGF D	65
Figure 60: 2012 Response Time by Hour of Day - RFD	65
Figure 61: 2012 Response Time by Hour of Day - SFFD.....	66
Figure 62: General Training Competencies.....	70
Figure 63: Training Administration	71
Figure 64: Training Resources	72
Figure 65: Training Scheduling and Procedures.....	74
Figure 66: Code Enforcement and Inspection Programs	75
Figure 67: Fire Safety and Public Education.....	78
Figure 68: Fire Investigation.....	80
Figure 69: Summary of Alternative Funding Models	95
Figure 70: Multiple-Variable Funding Scenarios	95
Figure 71: Fire Station Locations.....	98
Figure 72: Combined Budget by Category, Fiscal Year 2012	101
Figure 73: Administrative and Support Baseline Staffing	101
Figure 74: Field Operations Baseline Staffing	102

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City of Nowthen

Bill Schulz, Mayor	Mary Rainville, Councilmember
Harlan Meyer, Councilmember	Corrie LaDoucer, City Clerk
Jeff Pilon, Councilmember	Dean Kapler, Fire Chief
Jim Scheffler, Councilmember	

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Jerry Tveit, Mayor	Tim Brown, Councilmember
Mike Haggard, Councilmember	Matt Hysten, Administrator
Amy Lazere, Councilmember	Dean Kapler, Fire Chief
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City of Oak Grove

Mark Korin, Mayor	Sean Sullivan, Councilmember
Mike Wylie, Councilmember	Rick Juba, Administrator
Scott Lawrence, Councilmember	Curt Hallermann, Fire Chief
Dan Denno, Councilmember	

City of Bethel

Todd Miller, Mayor	Richard Wiitala, Councilmember
Kristi Bottema, Councilmember	Ginger Berg, City Clerk
David Merritt, Councilmember	David Arcand, Fire Chief
Brian Birkham, Councilmember	

Executive Summary

Emergency Services Consulting International (ESCI) was engaged by the cities of Ramsey, Nowthen, St. Francis, Oak Grove, and Bethel, Minnesota, herein after referred to as the participating agencies, to evaluate the feasibility of shared and cooperative services between the cities' fire departments. This report serves as the culmination of the project and begins with a general overview of the participating agencies. This overview includes information relative to history, formation, and general description of the service areas, governance and lines of authority, foundational policy documents, organizational design, and budget and finance.

Each participating agency is a direct operating department of its respective municipality. Each reports to a city council and/or mayor and participates in annual municipal budget processes. The primary difference between the governance and lines of authority of the five study agencies is relative to city size but otherwise few differences exist.

Foundational policy documents are those books, handbooks, and manuals that allow the organization to exist and govern its operations both from an administrative and operational perspective. ESCI reviewed the organizations documents and found that they are generally well developed. While each agency maintains Standard Operating Guidelines (SOG), they are somewhat variable in content. Regardless of moving forward with cooperative efforts, all five agencies would benefit from developing and implementing a standardized set of policy documents that cover specific topics including administrative policies, general rules, and operational guidance.

Most fire departments and emergency services agencies are structured in a typical "top-down" hierarchy where the fire chief reports to a board of directors (or city administrator/manager or city council) and the remainder of the fire department is under his/her direction, usually consisting of several assistant or deputy chiefs, line officers, and operational firefighters. As seen in many organizations this size, programs and responsibilities are overseen by those 'wearing more than one hat'. Future shared services may produce programs of sufficient size to warrant separate program managers as well as administrative and support positions.

Without adequate funding, no emergency services organization can fulfill its mission. The personnel, whether career or volunteer, are compensated in some fashion either through salary and benefits or through intangible pension programs. Apparatus are expensive pieces of specialized equipment that can

cost as much as \$1.5 million and must be replaced periodically. Facilities, which can cost upwards of several million dollars to construct, are necessary to house the apparatus and provide housing and training for personnel. Although not replaced as often as apparatus, emergency services facilities cannot be expected to last forever. With the exception of Bethel, all of the agencies have effectively planned for future apparatus replacement needs. Limited planning has taken place regarding fixed facilities. Should future collaborative efforts be undertaken, the cost of future capital replacement will be a critical consideration.

Aside from personnel, capital assets can be a department's most critical expense; without proper upkeep and replacement planning, facilities and apparatus can fall into disrepair and fail at a critical time. ESCI conducted a non-architectural/non-engineering review of existing facilities to evaluate suitability for current uses and viability for future service delivery. In addition, the project team reviewed existing apparatus for general condition and serviceability. The review is included in the Capital Assets section of this report.

Today's emergency services agencies are a mix of career (paid full-time), part-time, paid-on-call, and volunteer personnel. Which of these an agency utilizes (one or more) is dependent upon several factors, including availability of paid-on-call or volunteer personnel, service demand, population density, socioeconomics, demographics, and financial resources of the community. For a career fire department, the distinction between administrative and support personnel and operations personnel is relatively clear. In combination and volunteer departments, however, this separation is not as simple. Most combination and volunteer departments have personnel that perform both administrative/support and operational roles while career departments have personnel that are primarily focused on managing and supporting the programs of the organization.

Only Ramsey Fire Department uses career personnel to meet the administrative and support needs of the department. Each of the other departments accomplishes these functions with part-time or paid-on-call personnel. In all of the participating agencies, administrative personnel also serve as primary emergency responders.

Emergency response staffing is accomplished largely by the use of paid-on-call, part-time personnel throughout the study area. Only Ramsey employs career personnel which are limited to administrative roles. All operational responders are non-career members.

The following table details the career membership of the agencies:

	Bethel	Nowthen	Oak Grove	Ramsey	St. Francis	Total
Fire Chief	0	0	0	1.0	0	1.0
Fire Marshal	0	0	0	1.0	0	1.0
Admin. Asst.	0	0	0	0.5	0	0.5
Total	0	0	0	2.5	0	2.5

Paid-on-call members are listed below:

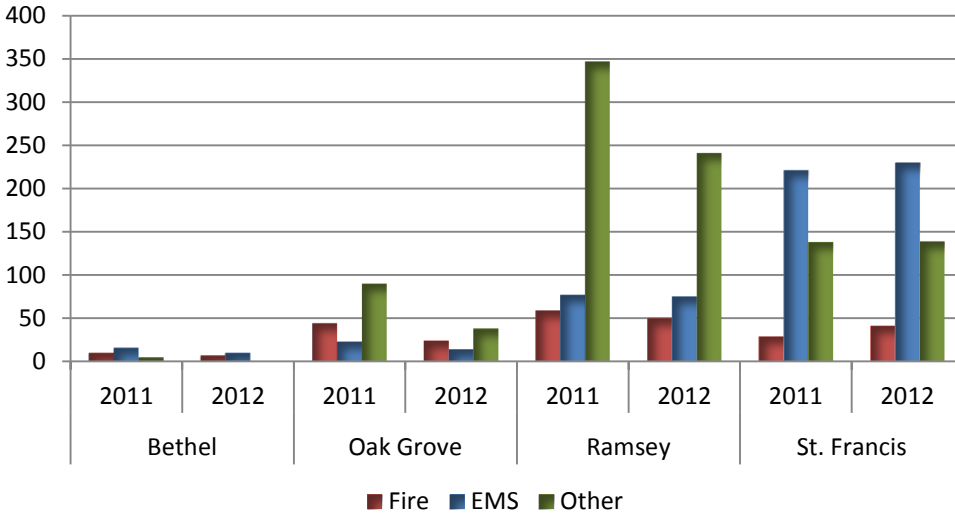
	Bethel	Nowthen	Oak Grove	Ramsey	St. Francis	Total
Fire Chief	1	0	1	0	0	2
Asst. Chief	1	0	1	2	1	5
Captain	1	0	2	3	1	7
Lieutenant	2	0	5	3	4	14
Training Officer	0	0	0	1	1	2
Inspector	0	0	0	0	1	1
Firefighter	7	0	22	43	15	87
Admin. Asst.	0	0	1	0	0	1
Total	12	0	32	52	23	119

Based on the distribution of operational staff across all three study departments, the system utilizes a total 120 operational personnel including 2 career and 118 paid-on-call personnel. From a comparative perspective, the number of volunteer/paid-on-call personnel in the combined study area is above the regional benchmarks while the number of career personnel is significantly below the expected level.

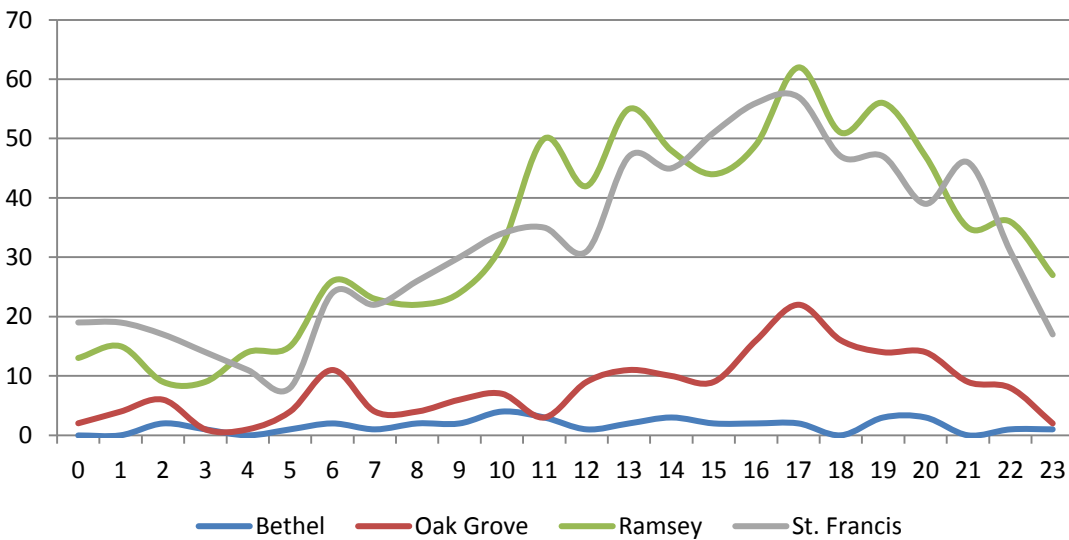
The primary responsibility of any emergency services organization is to provide emergency response services to their respective communities. The next section of the report evaluates the service delivery and performance of each participating agency both as an independent provider and as a region. This was accomplished through an analysis of service demand, distribution of resources and response performance and is partially summarized below.

Each department is involved in emergency medical services first response efforts to varying degrees. Medical incidents account for the majority of some agencies' overall service demand while others respond to more fires and other incidents than medical calls, as shown in the following table.

Ramsey, Nowthen, St. Francis, Oak Grove, and Bethel, Minnesota
 Feasibility Study for Shared or Cooperative Fire and Emergency Services



Service demand was also evaluated temporally. As expected, each department’s service demand begins to increase around 0600, peaks during the mid-afternoon hours and then declines into the evening. This is a common bell-curve pattern of service demand for fire departments involved in the delivery of EMS. When service demand was plotted geographically, it was determined that the heaviest incident density occurs within Ramsey and St. Francis.



In regard to distribution of resources, based on travel models, nearly 100 percent of the combined service area is within 12 minutes of travel from an existing fire station and 85 percent is within eight

minutes. Four-minute coverage drops to 50 percent in Oak Grove and is also lower in the other service areas, as is to be expected.

	4 Minutes	8 Minutes	12 Minutes
Bethel	100 %	100 %	100 %
Oak Grove	50.2 %	85.8 %	97.3 %
Ramsey/Nowthen	70.5 %	98.2 %	100 %
St. Francis	84.9 %	95.6 %	99.5 %

Although the delivery of fire suppression and emergency medical services is at the foundation of each department's mission, additional core activities are necessary to support every emergency services agency. These activities provide the basis for member training and education, public safety education, fire prevention, and code enforcement. More detail on each of the elements is provided within the body of the document.

While the preceding sections of the report focus on the current conditions within each of the study agencies, the greater intent of the project is to evaluate the potential for cooperative and/or shared services between the agencies up to and including consolidation if feasible. The final report section examines the multitude of options available to the study agencies and provides direction where appropriate. Three basic strategies are generally available when considering cooperative efforts and shared services, beginning with a do-nothing approach (status quo) and ending with complete unification of the organizations into what is, essentially, a new emergency service provider. In between lay the potential for functional consolidation and operational consolidation.

In identifying potential cooperative and shared services opportunities, the project team considered the key issues now challenging each agency and community. 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 expectations, and other significant matters.

ESCI usually makes no distinction between unification, consolidation, or merger, tending to use each term interchangeably. The reader should note that when referring to the union of programs or agencies, the operative words are *functional* and *legal*.

Governing bodies should pursue the process of joining two or more fire departments only after concluding that unification is cost-effective and is likely to provide better and/or more efficient service to the public. Each agency's legal counsel should research the particular statutory steps necessary to implement a particular unification strategy. The different processes are not commonly difficult to accomplish, but because the transfer of public assets and liabilities may be involved, the procedure itself can be relatively precise. It is important, therefore, that the agencies have the benefit of competent legal advice throughout the process.

The decision to choose one unification strategy over another is a matter of local policy. Most often, officials choose a preferred course for analytical reasons; however, in certain cases politics or law may rule. Most states actively support cooperation between governments as a matter of policy in the interest of furthering the economy and efficiencies of local government. Generally, functional and operational strategies are always available as options, whereas the legal unification of fire departments is dependent on circumstance.

As discussed in further detail in the body of this report, statutory allowances to accommodate various forms of merger and consolidation are limited in Minnesota Law and, to achieve some forms of unification, legislative action is necessary to provide the authority to do so. To accomplish a true legal unification, one group of Minnesota communities had to petition the legislature for a special law that created the state's first independent fire district with taxing authority. They were successful in doing so, as is explained in the General Partnering Strategies section of this report.

While the last section of the report evaluates and presents the potential for combining the study departments into one or more new and larger agencies, ESCI understands that cooperative efforts and shared services can take on a much different look. As mentioned previously, there are various methods by which to cooperate between departments and improve the overall efficiency of the organizations within a given region. Various functional shared services options that two or more departments may participate in to gain efficiencies of scale were evaluated and include:

- Enhanced Mutual and Automatic Aid Agreements
- Development of Uniform Pre-Incident Planning Processes
- Implementation of Regional Incident Command and Operational Supervision
- Combining Administrative and Support Services
- Developing a Shared Health and Safety Program

- Implementing a Regional Capital Replacement Plan
- Establishing Shared Apparatus and Equipment Purchasing Practices
- Sharing Personnel Recruitment and Retention Efforts
- Developing a Regional Training Program
- Developing a Regional Code Enforcement and Life Safety Education Program
- Developing Unified Standard Operating Guidelines/Procedures

Each of the above is discussed in detail and implementation guidance is provided. ESCI recommends that, regardless of decisions that may be made about any greater degree of future unification of the agencies, the listed functional shared services approaches be implemented.

ESCI also evaluated the opportunities that exist for higher level integration. It is important to point out that a high level of collaboration currently exists between the Cities of Ramsey, Nowthen, and St. Francis, constituting what is essentially already a unified organization. The City of Nowthen receives fire protection from the City of Ramsey, and the City of St. Francis is receiving administrative oversight and management from the contracted use of the Ramsey Fire Chief. Should the existing three-city cooperative effort be taken to a higher level, the City of Bethel would be the next likely partner, in large part because the city is surrounded on three sides by St. Francis. The City of Oak Grove could also benefit from joining the cooperative effort, resulting in multiple benefits.

In many larger cooperative efforts projects in which ESCI participated, cost savings are realized when multiple agencies combine that have a large number of career personnel. Financial advantages may also be found when re-deployment of personnel and facilities accommodates a reduction in the number of fire stations and/or people. In this study area, ESCI finds that station locations are appropriate and necessary to provide appropriate levels of coverage, so no reductions are feasible. Further, using a paid-on-call staffing model in all of the fire departments, financial savings cannot be accomplished by reducing personnel numbers. **Based on these findings, financial advantages of full unification are limited. However, many valuable gains in terms of increased efficiency and operational effectiveness will result from the adoption of the functional shared service initiatives that are offered.**

The report concludes with a general discussion on the overall implementation process should the entities make a decision to move forward. Part of this process includes the policy decisions necessary to determine, based on the results of the study, whether there is sufficient desire among the political

bodies of the organization to continue with the process or not. The implementation begins with that step.

A tremendous amount of data and information is contained within this document, much of which was supplied by the agencies involved and then analyzed and evaluated by the ESCI project team. In the end, the study departments, like many other paid-on-call fire departments across North America, are operating at a level that is currently meeting the expectations of the communities served but realize that there is always room for improvement. Regardless of the path that policymakers chose moving forward, the information contained with this report is intended to be used by the fire departments to follow a process of continuous quality improvement in a non-ending cycle of self-evaluation.

ESCI began collecting data and working with community stakeholders for this project in February 2013. Analysis of data and collection of stakeholder input has taken over four months to compile to develop options for future service delivery within the study area. It is ESCI's sincere hope that the information contained within this document is seen as useful in enhancing the way in which fire and emergency services are delivered throughout the area.

Section I – Evaluation of Current Conditions

In early 2013, Emergency Services Consulting International (ESCI) was engaged by the cities of Ramsey, Nowthen, St. Francis, Bethel, and Oak Grove (referred to as the participating agencies or study agencies), to evaluate the feasibility of establishing or enhancing cooperative delivery opportunities that already exist between the individual agencies regarding the provision of fire and emergency services. This report serves as the culmination of that analysis.

In order to fully appreciate the intricacies of how the participating agencies currently provide delivery of emergency services to their communities, ESCI initiates the project with an analysis of the current conditions existing in each agency. A review of all of the organizational elements is conducted for two reasons: first, to verify that ESCI's information collection is complete and accurate; secondly, to provide the reader that is not directly involved in fire and EMS service delivery with an understanding of how the agencies operate.

Organization Overview

Fire departments and other emergency services providers are actively involved in a number of varying activities primarily depending on the needs within their respective communities. The study area for this project is no different. This section provides a general description of each study agency's history, area served, population, infrastructure and financial element.

City of Bethel (Bethel Fire Department)

Bethel Fire Department (BFD) is a direct operating department of the City of Bethel. The area is comprised of 0.97 square miles and has a resident population of 466 based on the 2010 U.S. Census. This creates a population density of 480.4 per square mile, classifying the City as rural based on Nation Fire Protection Association (NFPA) benchmarks. Formed in, BFD is one of the oldest fire departments in Minnesota and continues to provide fire suppression, BLS (basic life support) emergency medical first responder, hazmat operations-level, and public education services. The department maintains a single response facility and a total of five apparatus including two engines, one tanker/tender, one grass unit, and one utility vehicle. Services are provided by an all-volunteer (paid-on-call) force of 12 including the fire chief, assistant chief, captain, two lieutenants, and seven firefighters.

City of Nowthen

The City of Nowthen is comprised of approximately 35.1 square miles and has a resident population of 4,443 as of the 2010 U.S. Census. This translates to a population density of 126.6 per square mile,

classifying the area as rural based on NFPA benchmarks. The City of Nowthen contracts fire protection and emergency services to the City of Ramsey. The City, however, owns the fire station located in Nowthen and pays for services rendered by Ramsey Fire Department. All personnel, although considered Nowthen firefighters, are actually City of Ramsey employees (volunteers) and are paid through the Ramsey Fire Department for responses and training. The current joint powers agreement between Nowthen and Ramsey dictates that Ramsey will bill Nowthen when Ramsey apparatus and personnel are used within the City of Nowthen and Nowthen will bill Ramsey when Nowthen apparatus and personnel are used within the City of Ramsey. Nowthen owns one engine, one tanker and one grass unit that are housed at the Nowthen station.

City of Oak Grove (Oak Grove Fire Department)

Oak Grove Fire Department (OGFD) is a standing department within the City of Oak Grove's organizational structure. The department's response area, which duplicates the city's municipal boundary, is comprised of approximately 35.1 square miles with a resident population of 8,031. This translates into a population density of 228.8 per square mile, classifying the area as rural based on NFPA benchmarks. The department operates from two strategically placed fixed facilities with a fleet of two engines, two tanker/tenders, one rescue, two grass units, and several ancillary vehicles. The department provides fire suppression, BLS emergency medical first responder, vehicle extrication, hazmat operations-level, public education, and code enforcement and inspections with a totally volunteer (paid-on-call) staff of 32 consisting of the fire chief, an assistant chief, 2 captains, 5 lieutenants, 1 administrative assistant, and 22 firefighters.

City of Ramsey (Ramsey Fire Department)

Ramsey Fire Department (RFD) is a standing department within the City of Ramsey's organizational structure. The department's response area, which duplicates the city's municipal boundary as well as that of Nowthen, is comprised of approximately 29.7 square miles (plus the City of Nowthen) and contains a resident population of 23,668 based on the 2010 U.S. Census. This translates to a population density of 796.9 per square mile, classifying it as suburban based on NFPA benchmarks. The department provides services from two fixed facilities (plus the Nowthen station) with a fleet of two engines (three including the one in Nowthen), two tanker/tenders (three including the one in Nowthen), one aerial ladder, two rescues, one grass unit and one boat along with several ancillary vehicles. Fire suppression, BLS emergency medical first responder, vehicle extrication, hazmat operations-level, technical rescue-confined space, public education, and code enforcement and inspections services are provided by a staff of 54 including a full-time fire chief, full-time fire marshal, part-time administrative assistant, and a

volunteer (paid-on-call) staff consisting of 2 assistant chiefs, 3 captains, 3 lieutenants, 1 training officer, and 43 firefighters.

City of St. Francis (St. Francis Fire Department)

St. Francis Fire Department (SFFD) is a direct operating department of the City of St. Francis and consists of a response area that duplicates the municipal boundary to include 23.7 square miles and a resident population of 7,218 as of the 2010 U.S. Census. This translates to a population density of 351.8 per square mile and is classified as rural based on NFPA benchmarks. The department provides fire suppression, BLS emergency medical first responder, vehicle extrication, hazmat operations-level, public education, and code enforcement and inspections services from a single fixed facility and a fleet of two engines, two tanker/tenders, one rescue unit, and two grass units. Services are provided by a totally volunteer (paid-on-call) staff of 23 including the assistant chief, 1 captain, 4 lieutenants, 1 training officer, 1 inspector, and 15 firefighters. At the time of this study, the City of St. Francis was contracting with the City of Ramsey to provide Fire Chief oversight to the department.

The figure below summarizes the land area within each study municipality while the second figure provides a summary of population and population density.

Figure 1: Comparison of Land Area Covered (square miles)

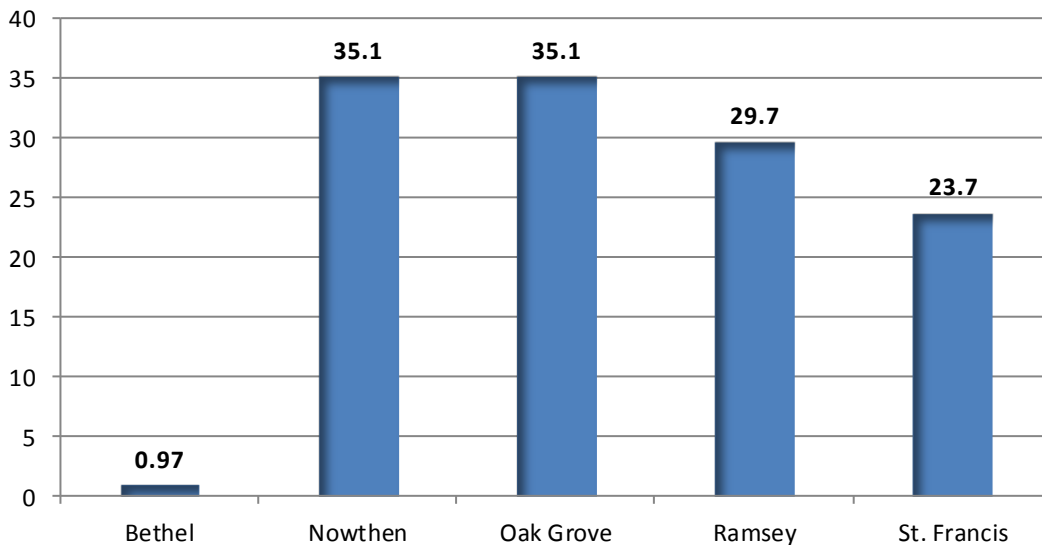
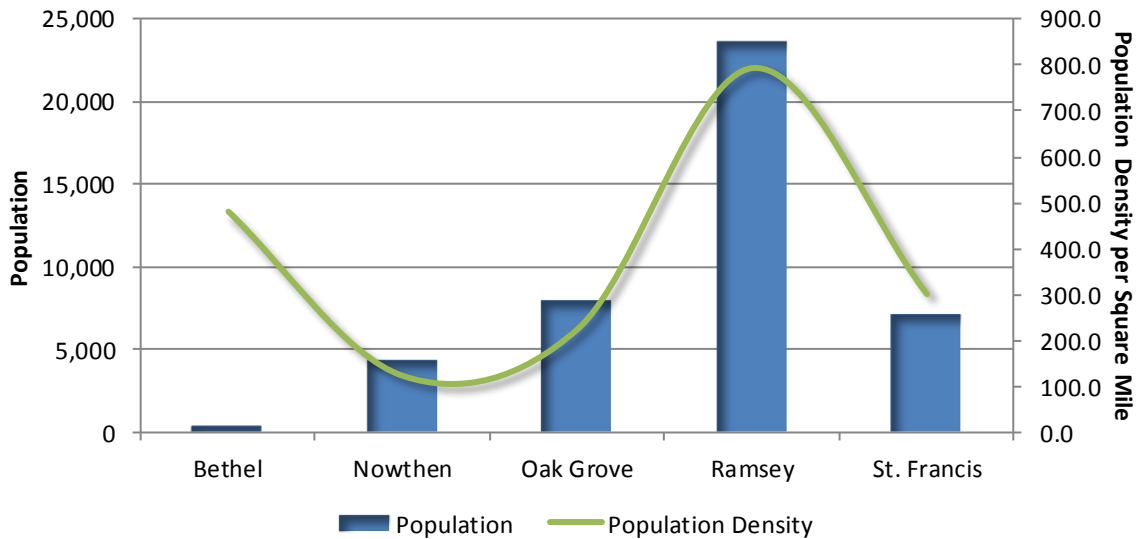
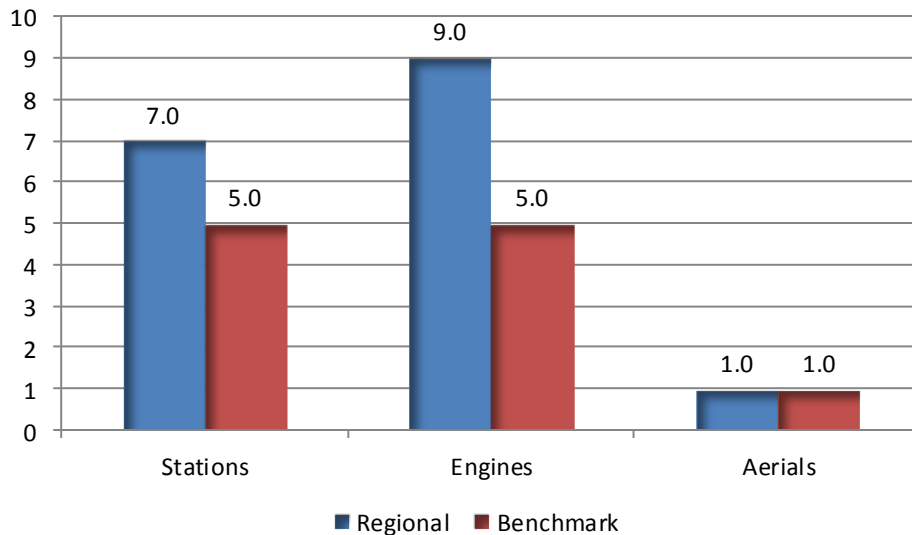


Figure 2: Comparison of Populations Served



Based on NFPA benchmarks for departments serving similar populations within the Midwest region, the study departments appear to be slightly over-resourced as illustrated in the figure below. However, it should be understood that these benchmarks do not consider land area and are population based only. Distribution and necessity of resources will be discussed later in this report.

Figure 3: Comparison of Physical Resources to Regional Benchmarks



The figure below summarizes the general descriptions of the study agencies as well as governance and lines of authority elements.

Figure 4: Summary of Governance and Lines of Authority Elements

	Bethel FD	Oak Grove FD	Ramsey FD	St. Francis FD
Department Preferred Acronym	BFD	OGFD	RFD	SFFD
Governance Authority	Direct operating department of the City of Bethel	Direct operating department of the City of Oak Grove	Direct operating department of the City of Ramsey	Direct operating department of the City of St. Francis
Jurisdictional Limits	Duplicates the governmental boundaries of the community	Duplicates the governmental boundaries of the community	Duplicates the governmental boundaries of the community and also covers the City of Nowthen	Duplicates the governmental boundaries of the community
Communities Served (all or portion)	Bethel	Oak Grove	Ramsey, Nowthen	St. Francis
Primary Risk Types	Suburban residential and light commercial	Suburban residential and light commercial, Rural residential and agricultural	Urban residential and commercial, Suburban residential and light commercial, Rural residential and agricultural	Urban residential and commercial, Suburban residential and light commercial, Rural residential and agriculture
Community Growth Level	Very limited	Very limited	Moderate, but steady	Very limited
Year Agency Formed	1905	1980	1988	1963
List All Services	Fire suppression, BLS emergency medical first responder, Hazmat operations-level, Public education	Fire suppression, BLS emergency medical first responder, Vehicle extrication, Hazmat operations-level, Public education, Code enforcement and inspections	Fire suppression, BLS emergency medical first responder, Vehicle extrication, Hazmat operations-level, Technical rescue-confined space, Public education, Code enforcement and inspections	Fire suppression, BLS emergency medical first responder, Vehicle extrication, Hazmat operations-level, Public education, Code enforcement and inspections
Technician-Level Hazmat Services Provided By	Regional hazmat team in which this agency does not participate	Regional hazmat team in which this agency does not participate	Regional hazmat team in which this agency does not participate	Regional hazmat team in which this agency does not participate
Hazmat Team Name	North Metro CAT	North Metro CAT	North Metro CAT	North Metro CAT
Staffing Methodology	On-call responders coming from home or work	On-call responders coming from home or work	On-call responders coming from home or work	On-call responders coming from home or work
Minimum On-Duty Strength or Typical On-Call Availability	4	8	15	10
Latest ISO Rating	9	7/10	4/7/10	4/7/10

	Bethel FD	Oak Grove FD	Ramsey FD	St. Francis FD
Split Rating	No	The split rating applies the lower of the ratings to those structures within 1,000 feet of a hydrant and the higher of the three to those structures outside five miles of a fire station. All others in the un-hydranted areas receive the middle rating.	The split rating applies the lower of the ratings to those structures within 1,000 feet of a hydrant and the higher of the three to those structures outside five miles of a fire station. All others in the un-hydranted areas receive the middle rating.	The split rating applies the lower of the ratings to those structures within 1,000 feet of a hydrant and the higher of the three to those structures outside five miles of a fire station. All others in the un-hydranted areas receive the middle rating.
Last ISO Survey Conducted In	2004	2010	2004	2004

Based on the summary information, the study department are strikingly similar in the services they provide and the methods by which they provide them. The primary differences lie with the population densities covered, which have an impact on the respective Insurance Services Office (ISO) ratings. How the distribution of resources impact this rating will be discussed later in this report.

Foundational Policy Documents

Foundational policy documents are those books, handbooks and manuals that allow the organization to exist and govern its operations, both from an administrative and operational perspective. Many sets of these documents can exist within a single agency and the comprehensiveness of the documents can be highly varied. In general, those organizations that function as governmental entities (county, municipal and special districts) tend to have a more comprehensive set of policy documents than do predominantly volunteer agencies. This is not due to the volunteer agencies’ lack of attention to the issue but rather state and federal rules that local government units must adhere to in this regard. ESCI reviewed the policy documents for each agency as outlined in the following figure.

Figure 5: Summary of Foundational Policy Document Elements

	Bethel FD	Oak Grove FD	Ramsey FD	St. Francis FD
Titles of Policy Documents	Policies and Procedures Anoka County Chiefs	SOGs City Employee Manual Fire Department Handbook	SOGs Personnel Policies Anoka County Chiefs	SOGs City Personnel Policies
Quality of Administrative Policy Documents	Well organized and complete	Well organized and complete	Well organized and complete	Well organized and complete
Important Civil Liability and Risk Management Policies Present	Yes	Yes	Yes	Yes
Quality of Standard Operating Policies	Very good	Very Good	Very good	Very good
Adequate Operational Scene Guidance	No	Yes	Yes	Yes

While each department operates under its respective municipality’s policy document, all presented operational documents that are well-organized and nearly complete. All study agencies should ensure that specific scene guidance is included as part of the operational documents supplied to personnel. Moving forward, the departments should work together to establish a common set of operational policies and procedures to increase the consistency of service delivery across the region.

Organizational Design

Most fire departments and emergency services agencies are structured in a typical “top down” hierarchy where the fire chief reports to a board of directors, city administrator/manager, or city council and the remainder of the fire department is under his/her direction, usually consisting of several assistant or deputy chiefs, line officers, and operational firefighters. Often span of control becomes an issue as departments grow and the ability of supervisory personnel, either career or volunteer, becomes overextended. In historical military literature, the origin of modern span of control theory, an individual in a stressful situation should have no more than six to eight personnel under his/her command. ESCI evaluated the organizational structure of each study agency as illustrated in the following figure.

Figure 6: Summary of Organizational Design Elements

	Bethel FD	Oak Grove FD	Ramsey FD	St. Francis FD
Clear Unity of Command	Yes	Yes	Yes	Yes
Organized With Clear Operating Divisions	No	No	No	No
Specific Programs With Managers Designated	No	No	No	No
Chief's Disciplinary Authority	Written reprimand and recommendation for further discipline	Written reprimand and recommendation for further discipline	Written reprimand, suspension from Duty and recommendation for further discipline	Suspension from duty and recommendation for termination
Quality of Job Descriptions	Complete, thorough, and up to date	Complete, thorough, and up to date	Complete, thorough, and up to date duties listed	Complete, thorough, and up to date

Each organization is structured in a typical top-down hierarchy and retains a span of control that is within recommended limitations. Based on the sizes of the organizations, it would be difficult to assign specific program managers or separate operating divisions without additional career personnel.

Funding, Fees and Taxation

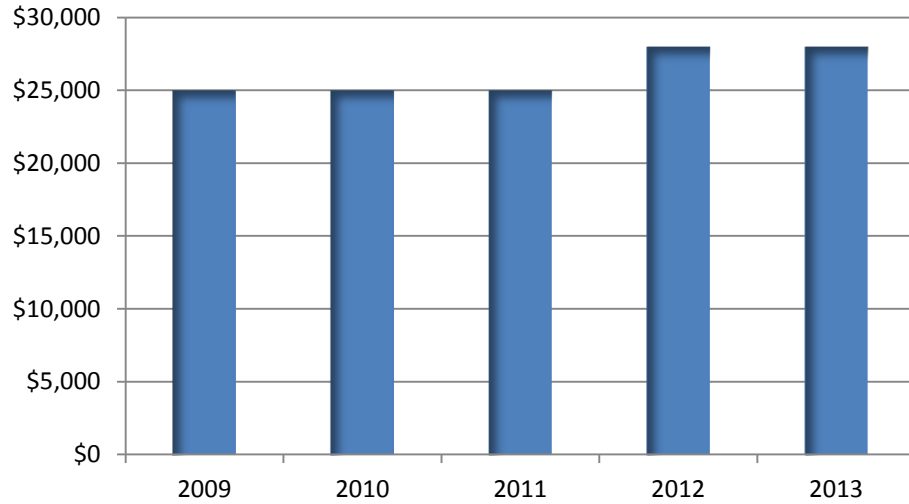
Without adequate funding, no emergency services organization can fulfill its mission. The personnel, whether career or volunteer, are compensated in some fashion either through salary and benefits or through per-call compensation and volunteer pension programs. Apparatus are expensive pieces of specialized equipment that can cost as much as \$1.5 million and must be replaced periodically (as will be discussed in the next section of this report). Facilities, which can cost upwards of several million dollars to construct, are necessary to house the apparatus and provide housing and training for personnel. Although not replaced as often as apparatus, emergency services facilities cannot be expected to last forever.

This section of the report analyzes the fiscal resources of each of the study agencies and provides some generalizations about accountability of taxpayer dollars. The study departments provided varying degrees of financial data for evaluation by the ESCI project team. Given the variety of information provided, no direct correlation can be determined regarding overall budget history. However, at the end of this section, ESCI presents a composite cost of fire protection for the last fiscal year and compares that information to regional and national available data.

Bethel

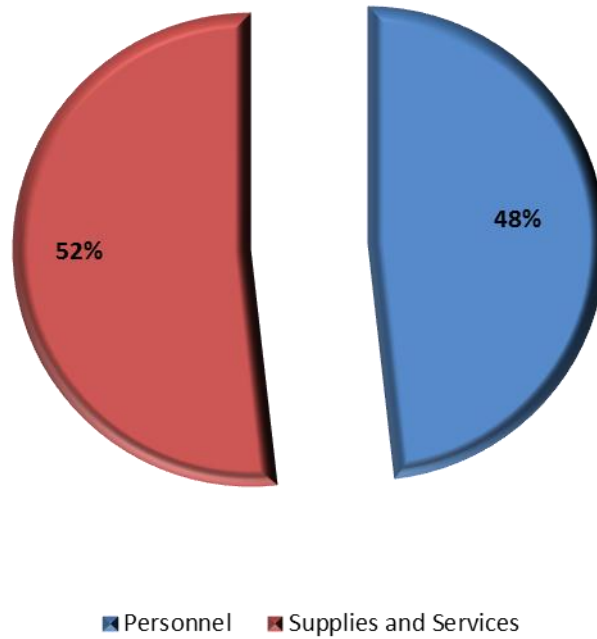
BFD provided five years of budget history for evaluation by the ESCI project team.

Figure 7: Historical Budget - BFD



Over the past five years, the department's budget has seen an increase of 12.0 percent. While this may seem like a large increase, the overall expenditures for fire protection within Bethel are extremely low. Based on a per capita rate, fire protection costs are calculated at \$60.09 compared to \$70.28 across Minnesota and \$137.83 nationally. The figure below illustrates how the department's budget is distributed across the personnel and supplies/services categories.

Figure 8: 2012 Budget Distribution - BFD

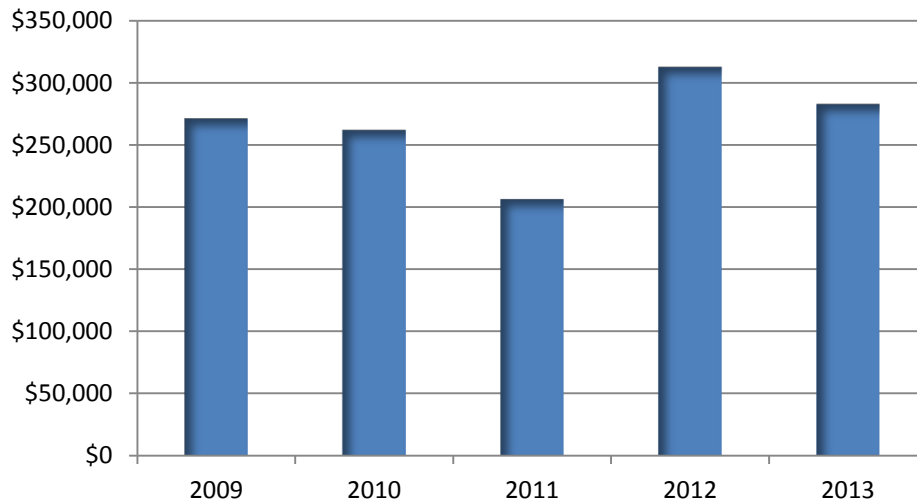


BFD's expenditures are nearly equal and no capital expenditures were recorded for the 2012 fiscal year, the mostly recently fully completed fiscal year.

Oak Grove

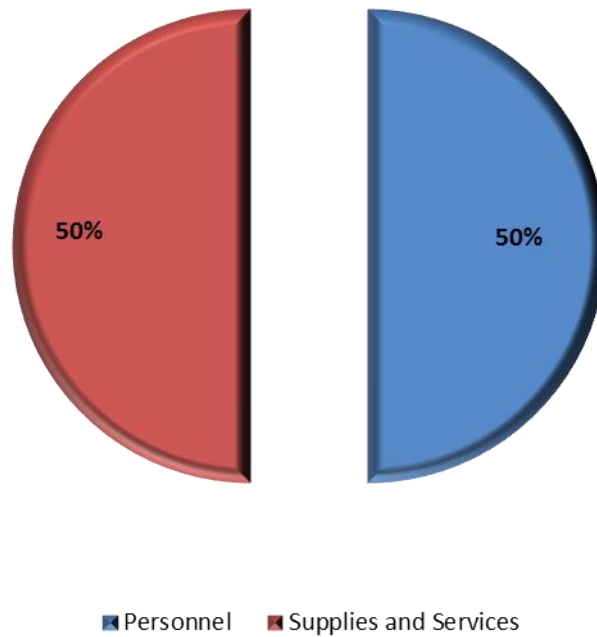
OGFD provided five years of budget history for evaluation by the ESCI project team, as illustrated below.

Figure 9: Historical Budget - OGFD



Based on the five-year history, the department has seen an increase of only 4.2 percent overall. The figure below illustrates how the department's budget is distributed across the personnel and supplies/services categories.

Figure 10: 2012 Budget Distribution - OGF

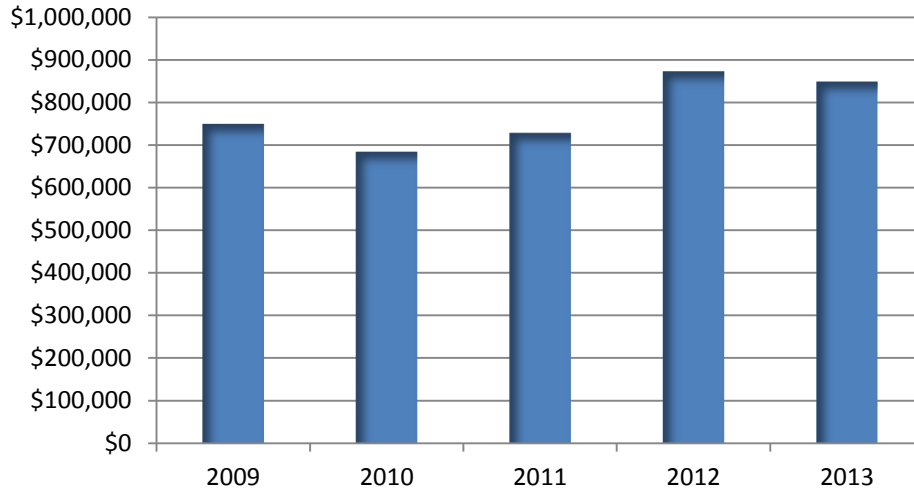


For 2012, the department's budget is equally divided across the two primary categories. No capital expenditures were recorded in the 2012 budget.

Ramsey

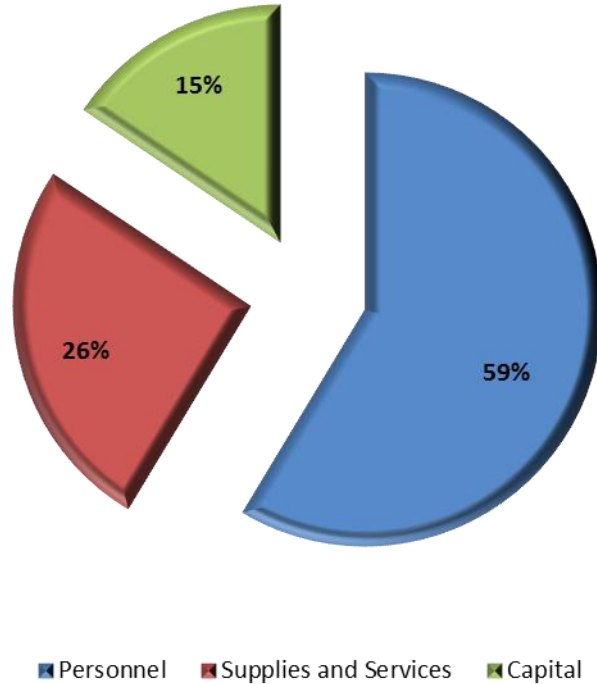
RFD provided five years of budget history for evaluation by the ESCI project team. That five-year budget history is illustrated below.

Figure 11: Historical Budget - RFD



RFD has seen an increase of 13.2 percent during the study period but also saw a decrease of 2.8 percent from 2012 to 2013. The figure below illustrates how the department's budget is distributed across the categories of personnel, services/supplies and capital expenditures.

Figure 12: 2012 Budget Distribution - RFD

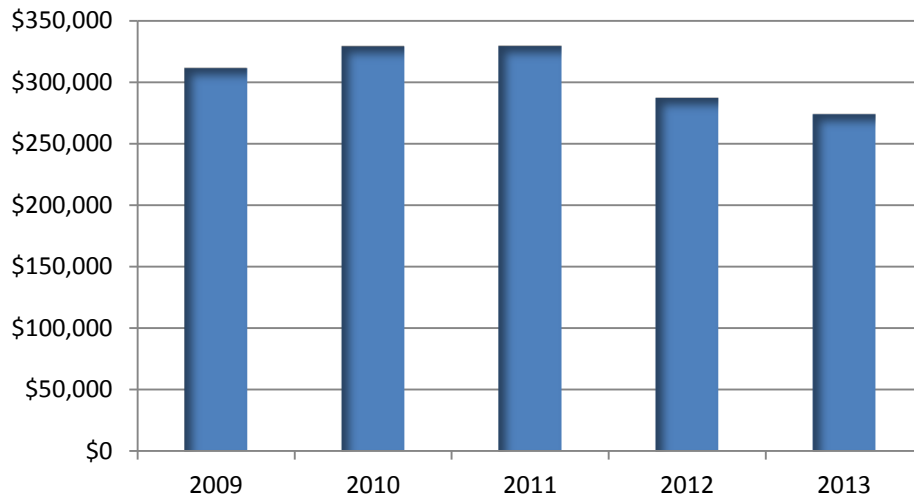


The department recorded a capital expenditure of \$136,000 in the 2013 budget, which skews down the overall percentages of personnel and supplies/services. If this expense were removed, personnel expenditures would account for 69 percent of total department costs.

St. Francis

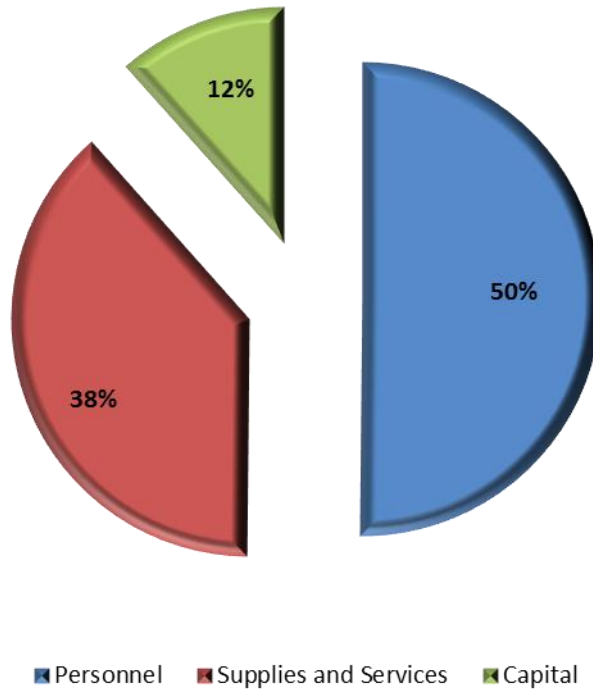
SFFD provided five years of budget history for evaluation by the ESCI project team.

Figure 13: Historical Budget - SFFD



SFFD has seen a decrease of 12.1 percent over the five-year budget history with decreases of 12.1 and 4.6 percent in 2012 and 2013, respectively. The figure below illustrates how the department's budget is disturbed across the personnel, supplies/services and capital categories.

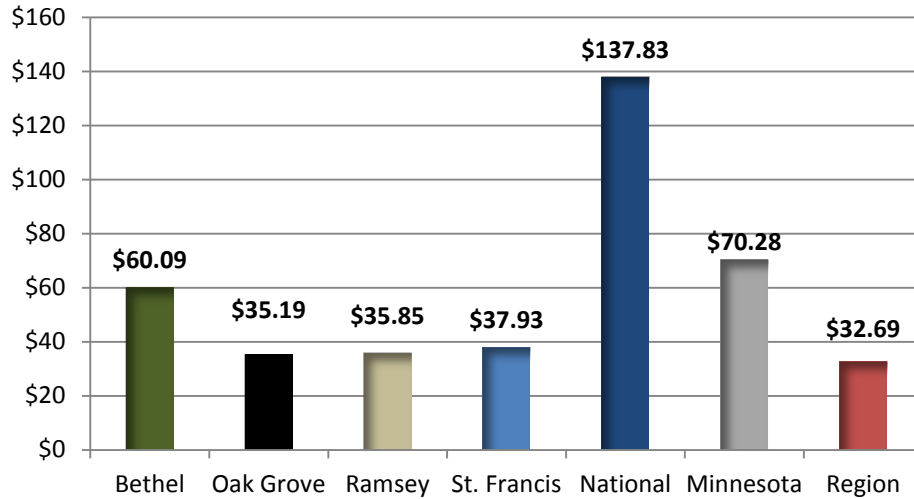
Figure 14: Budget Distribution 2012 - SFFD



The department recorded a capital expenditure of \$33,122 in the 2013 budget that skews the overall percentages downward. If this expenditure were removed, personnel expenditures would account for 57 percent of total department costs.

Overall, the cost of fire protection throughout the study area for 2013 totals approximately \$1,432,826 including all personnel, operational, and capital expenditures. This equates to a per capita cost of \$32.69, significantly below the state and national averages as noted in the following figure.

Figure 15: Comparisons of Cost per Capita for Fire Protection and Emergency Services



Relief Associations

One issue that could be a major factor in the decision to enter into a shared services or other cooperative services agreement between the fire departments concerns each agency's Fire Relief Association. A 2011 report issued by the Minnesota Office of the State Auditor found that 717 relief associations were in existence in Minnesota during 2009.¹ Those 717 relief associations held nearly \$403 million in net assets, which represents accrued benefits for 20,812 firefighters statewide. During 2009, relief associations received \$15.4 million in fire state aid and received \$7.8 million in municipal contributions. During that same year, \$30.8 million in service pensions was paid out by 444 different relief associations.

BFD, OGF and SFFD participate in lump sum plans; at the appropriate time, eligible members receive a one-time payment from the association based on set criteria. RFD participates in a defined-contribution plan. A defined-contribution plan is always fully funded based on the fact that assets are always equal to liabilities. All assets are divided among plan members, and the value of each member's account rises or falls based on revenues and expenditures to or from the plan. The differences in the plans within the study region are identified in the following figure.

¹ Financial and Investment Report of Volunteer Fire Relief Associations. March 2011.

Figure 16: Summary of Relief Association Benefits²

	Pension Type	Active Members	Active Service Requirement	Minimum Age	Yearly Benefit	Funding Ratio
BFD	Lump-Sum	12	10	50	\$488	
OGFD	Lump-Sum	33	5	50	\$2,300	104%
RFD	Defined-Contribution	51	10	50	Balanced	100%
SFFD	Lump-Sum	31	10	50	\$2,100	121%

Although there are differences between the plan types currently in use within the study region, it is also useful to examine the municipal contributions and current net assets held by each relief association. The following figure summarizes these components.

Figure 17: Fire Relief Association Net Assets³

	Municipal Contribution (2010)	Current Net Assets
BFD	\$865	\$84,900
OGFD	\$22,427	\$976,274
RFD	\$16,208	\$1,733,624
SFFD	\$0	\$662,836
Total Assets	\$39,500	\$3,457,634

If these funds were combined, there would have to be some adjustment to the plan type as well as the service requirement. Otherwise, Chapter 424B of Minnesota Statutes should be consulted in how to best merge the existing relief associations if an operational consolidation is implemented.

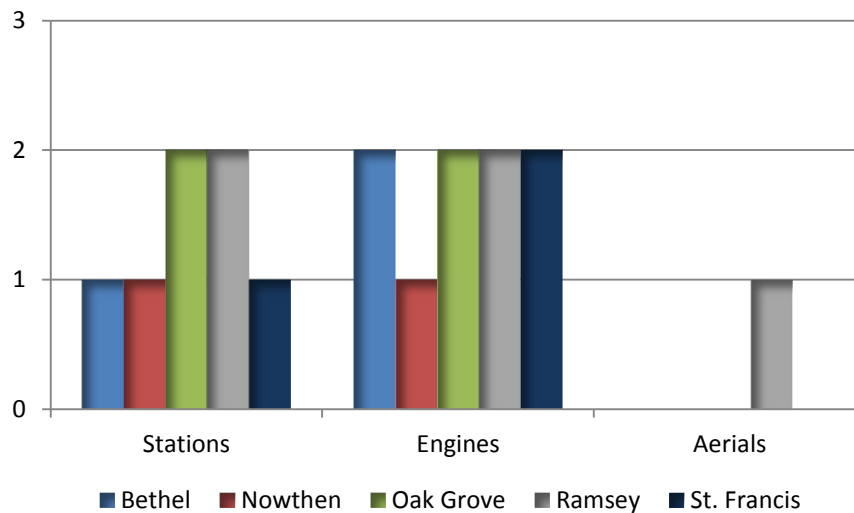
² *Financial and Investment Report Of Volunteer Fire Relief Associations*. State of Minnesota. Office of the State Auditor. http://www.osa.state.mn.us/Reports/pen/2010/vfra/vfra_10_report.pdf.

³ *Ibid.*

Capital Assets and Capital Improvement Programs

Three basic resources are required to successfully carry out the mission of a fire department — trained personnel, firefighting equipment, and fire stations. No matter how competent or numerous the firefighters, if appropriate capital equipment is not available for the use by responders, it is impossible for a fire department to deliver services effectively. The capital assets that are most essential to the provision of emergency response are facilities and apparatus (response vehicles). The following figure exhibits the number of fire stations, engines, and aerial ladder trucks operated by the agencies participating in the study.

Figure 18: Capital Assets



Facilities

Fire stations play an integral role in the delivery of emergency services for a number of reasons. A station's location will dictate, to a large degree, response times to emergencies. A poorly located station can mean the difference between confining a fire to a single room and losing the structure. Fire stations also need to be designed to adequately house equipment and apparatus, as well as meet the needs of the organization, its workers, and/or its members. It is important to research need based on call volume, response time, types of emergencies, and projected growth prior to making a station placement commitment.

ESCI toured each of the stations operated by the fire departments involved in the feasibility study, resulting in the observations listed in the following tables.

Figure 19: Ramsey Station 1


	<p>The City of Ramsey's Station 1 was constructed in 2001 and consists of three large apparatus bays. Also in the facility is a large, well-appointed training/meeting room as well as a smaller conference room.</p> <p>Residential quarters are not in place as the station does not house 24-hour shift personnel. There are two offices and adequate storage spaces.</p> <p>A fire engine, water tender, rescue vehicle, and grass/brush unit are housed in the station.</p>
Survey Components	Observations
Structure	
A. Construction type	Masonry on a concrete slab with a steel frame roof structure
B. Date	2001
C. Seismic protection/energy audits	When originally designed only
D. Auxiliary power	An automatic starting emergency generator is in place
E. Condition	Good
F. Special considerations (ADA, mixed gender appropriate, storage, etc.)	As was required at the time of construction
Accommodations	
A. Exercise/workout	In the apparatus bays
B. Kitchen/dormitory	A kitchen is adjacent to the apparatus bays. No residential facilities are present.
C. Lockers/showers	Mixed gender facilities are in place
D. Training/meetings	A large classroom seats 96 students and is well appointed with audio/visual equipment
E. Washer/dryer	Present in the apparatus bays
Protection Systems	
A. Sprinkler system	None
B. Smoke detection	None
C. Security	Doors are secured with combination locks
D. Apparatus exhaust system	Yes

Figure 20: Ramsey Station 2


	<p>Ramsey's Station 2 occupies a portion of a building that was previously the Ramsey City Hall. It consists of two, double depth, drive-through apparatus bays, accommodating an engine, an aerial ladder truck, one water tender, and a rescue vehicle along with a grass truck. The facility has multiple unused meeting and storage spaces and is planned for replacement in 2014.</p>
Survey Components	Observations
Structure	
A. Construction type	Masonry on a concrete slab with a steel frame roof structure
B. Date	1974
C. Seismic protection/energy audits	No current audits/upgrades
D. Auxiliary power	Only a manual starting portable emergency generator is used
E. Condition	Fair, aging
F. Special considerations (ADA, mixed gender appropriate, storage, etc.)	Not compliant with current codes requirements
Accommodations	
A. Exercise/workout	On the main floor in an old office space
B. Kitchen/dormitory	None
C. Lockers/showers	None
D. Training/meetings	A small common area is available in a day room
E. Washer/dryer	None
Protection Systems	
A. Sprinkler system	None
B. Smoke detection	None
C. Security	Doors are secured with combination locks
D. Apparatus exhaust system	Yes

Figure 21: Nowthen Fire Station (Ramsey Station 3)


	<p>The Nowthen Fire Station is a steel frame structure consisting of four, back-in, apparatus bays and a small office area. The facility houses a single fire engine, a water tanker, and a grass fire response vehicle.</p> <p>Sharing the property with other city facilities, the fire station is served by a water system that also provides water to two other small facilities.</p> <p>The station is well maintained and fully serviceable for its current use, with an unused apparatus bay and room on the property for future expansion, if needed, to meet long-term service demand increases.</p> <p>The station has no residential or administrative facilities.</p>
Survey Components	Observations
Structure	
A. Construction type	Steel frame, metal clad structure on concrete slab
B. Date	Unknown
C. Seismic protection/energy audits	None
D. Auxiliary power	Automatic starting generator is on site
E. Condition	Excellent, well maintained
F. Special considerations (ADA, mixed gender appropriate, storage, etc.)	N/A
Accommodations	
A. Exercise/workout	None
B. Kitchen/dormitory	None
C. Lockers/showers	None
D. Training/meetings	None
E. Washer/dryer	In apparatus bays
Protection Systems	
A. Sprinkler system	None
B. Smoke detection	None
C. Security	Doors are secured with combination door locks
D. Apparatus exhaust system	None

Figure 22: Oak Grove Station 1


	<p>Station 1 in Oak Grove is a part of the Oak Grove City Hall, sharing administrative and meeting facilities with the city.</p> <p>Originally constructed in the 1980's, the station is older but functional for its current use. It consists of five single-depth, back-in apparatus bays housing a fire engine, water tanker, rescue and grass fire response vehicle, along with two utility vehicles.</p> <p>The station has no residential facilities.</p>
Survey Components	Observations
Structure	
A. Construction type	Masonry block on concrete slab
B. Date	1980's
C. Seismic protection/energy audits	None
D. Auxiliary power	Generator is on site
E. Condition	Fair, but aging
F. Special considerations (ADA, mixed gender appropriate, storage, etc.)	Not compliant with current code requirements
Accommodations	
A. Exercise/workout	None
B. Kitchen/dormitory	Small kitchen area in a meeting room
C. Lockers/showers	None
D. Training/meetings	The city council chamber room is used for training. A small meeting area is also present.
E. Washer/dryer	None
Protection Systems	
A. Sprinkler system	None
B. Smoke detection	None
C. Security	Doors are secured with combination door locks
D. Apparatus exhaust system	None

Figure 23: Oak Grove Station 2



	<p>Oak Grove’s Station 2 is a newer, attractive facility that consists of two, double depth apparatus bays of a drive-through configuration. A fire engine, water tanker, and grass fire response vehicle are found inside, along with a multipurpose off road utility vehicle.</p> <p>The station is clearly well maintained and fully serviceable for its current use, with space for future expansion if needed.</p> <p>The station has no residential facilities.</p>
Survey Components	Observations
Structure	
A. Construction type	Masonry and wood frame on concrete slab
B. Date	2006
C. Seismic protection/energy audits	When designed, current
D. Auxiliary power	No generator is on site
E. Condition	Excellent, well maintained
F. Special considerations (ADA, mixed gender appropriate, storage, etc.)	Compliant
Accommodations	
A. Exercise/workout	None
B. Kitchen/dormitory	Small kitchen area in a common room
C. Lockers/showers	Small, dual gender, locker rooms are present
D. Training/meetings	Classroom seats approximately 18. One training and one administrative office.
E. Washer/dryer	In apparatus bays
Protection Systems	
A. Sprinkler system	None
B. Smoke detection	Present and monitored off-site
C. Security	Doors are secured with combination door locks
D. Apparatus exhaust system	Present

Figure 24: Bethel Fire Station

	<p>The Bethel Fire Station is an older, steel-frame and metal clad building that includes two, double-depth apparatus bays. A portion of the building is shared with the city maintenance shops.</p> <p>Two fire engines, a water tender, one brush/grass unit, and a utility vehicle have the station filled to capacity with no room for future needs and very limited storage space. The station is aging.</p> <p>There are no residential or administrative facilities located in the station.</p> <p>The station is scheduled to be renovated in July with the addition of a 12 x 60 ft., double depth apparatus bay, roof replacement and siding replacement.</p>
Survey Components	Observations
Structure	
A. Construction type	Metal clad, steel frame on concrete slab
B. Date	1970's
C. Seismic protection/energy audits	None
D. Auxiliary power	No generator is on site
E. Condition	Aging
F. Special considerations (ADA, mixed gender appropriate, storage, etc.)	Not compliant with current code requirements
Accommodations	
A. Exercise/workout	None
B. Kitchen/dormitory	None
C. Lockers/showers	None
D. Training/meetings	None. Nearby City Hall facilities are used
E. Washer/dryer	In apparatus bays
Protection Systems	
A. Sprinkler system	None
B. Smoke detection	None
C. Security	Doors are secured with combination door locks
D. Apparatus exhaust system	None

Figure 25: St. Francis Fire Station

	<p>The St. Francis Fire Station is an older building, but is adequate for its current use. The station has two, double depth apparatus bays of a drive-through configuration and two, single-depth, back-in bays. Two fire engines, two water tenders, a rescue and a grass fire response vehicle are housed in the facility.</p> <p>The station is well cared for, though aging, with some space for future expansion, if needed.</p> <p>The station has no residential or administrative facilities.</p>
Survey Components	Observations
Structure	
A. Construction type	Masonry and wood frame on concrete slab
B. Date	1960's, updated and added to in 1990
C. Seismic protection/energy audits	None
D. Auxiliary power	Automatic starting generator is on site
E. Condition	Fair
F. Special considerations (ADA, mixed gender appropriate, storage, etc.)	Not compliant with current codes
Accommodations	
A. Exercise/workout	Some exercise equipment is located in the station
B. Kitchen/dormitory	None
C. Lockers/showers	Small, dual gender, restrooms only
D. Training/meetings	Small meeting room seats 18.
E. Washer/dryer	In apparatus bays
Protection Systems	
A. Sprinkler system	None
B. Smoke detection	None
C. Security	Doors are secured with electronic card activated locks
D. Apparatus exhaust system	None

The fire stations found in the study are vary broadly from some that are reasonably new and in good condition to others that are aging and will soon be due for replacement. Generally, all of the stations observed are nearing or have already reached their maximum capacity in terms of room for future expansion as workload and service demand increases, with the exception of Oak Grove's Station 2 and the Nowthen station.

The Bethel station is of particular concern in that it is not only aging but is also filled to capacity with apparatus and has no room for future growth. Also of potential concern are the St. Francis station and Oak Grove Station 1, both of which are older and will represent increasing future maintenance costs.

In consideration of opportunities for future shared service delivery initiatives, fire stations and their long-term viability need to be kept in mind. When agencies combine, one with comparatively new and adequate fixed facilities may inadvertently inherit a financial liability that comes with another fire department that has aging facilities. Due to their considerable expense, the potential financial liability that may be realized in regard to some facilities must not be discounted.

Apparatus

Other than the emergency responders, response vehicles are the next most important resource of the emergency response system. If emergency personnel cannot arrive quickly due to unreliable transportation, or if the equipment does not function properly, then the delivery of emergency service is likely compromised.

Fire apparatus are unique and specialized pieces of equipment, customized to operate efficiently for a narrowly defined mission. For this reason, they are very expensive and offer little flexibility in use and reassignment. As a result, communities always seek to achieve the longest life span possible for these vehicles.

A summary of the participating agency's emergency response vehicle fleet is provided in the following tables.

Ramsey

The City of Ramsey operates a fleet of two fire engines, two water tankers, an aerial ladder truck, a grass truck, and two rescue vehicles. All appear to be well maintained and fully serviceable.

Figure 26: Ramsey FD Major Apparatus

Apparatus Name	Year	Make	Model	Type	GPM	Tank Size	Condition
Station 1							
Engine 11	1999	Spartan	LA41L	Engine	1,250	1,000	Good
Tanker 11	1994	Ford	L 9000	Water Tender	0	3000	Fair
Rescue 11	2004	Ford F 550	4x4 Crew Cab	Rescue	N/A	N/A	Good
Grass 11	2003	Ford F 350	4x4	Grass	150	250	Good
Boat	2012	Zodiac	6 passenger	Boat	N/A	N/A	Good
Station 2							
Engine 21	2008	Spartan	LA41L-2142	Engine	1,250	1,000	Excellent
Aerial 21	2003	Spartan	Gladiator	110 Ft Ladder	1,250	300	Excellent
Tanker 21	1989	Ford	L9000	Water Tender	500	2,000	Fair
Rescue 21	2003	Ford	F450 XL	Rescue	N/A	N/A	Good

Ramsey's major apparatus range in age from 5 to 24 years with an average age of 12.65 years. The primary units are newer and in good condition. Tanker 21 is 24 years of age and will be due for replacement in the next five years.

Nowthen

The Nowthen Fire Department has three fire response vehicles including one engine, a water tender, and a brush unit, as detailed below.

Figure 27: Nowthen FD Major Apparatus

Apparatus Name	Year	Make	Model	Type	GPM	Tank Size	Condition
Engine 31	1989	Ford	L9000	Engine	1,250	1,000	Fair
Tanker 31	1986	GMC	7000	Water Tender	0	1,800	Poor
Grass 31	2007	Ford	F350 4X4	Brush	150	250	Excellent

With an average age of 19 years, the Nowthen equipment is aging, with the exception of the six-year-old brush vehicle. Tanker 31 is 27 years of age, in poor condition, and due for replacement.

Oak Grove

Listed below is the Oak Grove Fire Department’s major apparatus. There are two engines, two water tenders, a rescue and two grass/brush units in the fleet.

Figure 28: Oak Grove FD Major Apparatus

Apparatus Name	Year	Make	Model	Type	GPM	Tank Size	Condition
Station 1							
Engine 11	2001	Pierce	-	Engine	2,000	1,000	Excellent
Tanker 11	1995	Ford	Engle	Water Tender	--	2,900	Good
Rescue 11	1994	Ford	Engle	Rescue	N/A	N/A	Good
Grass 11	2006	Ford	4x4	Grass	300	175	Good
Station 2							
Engine 21	2001	Pierce	-	Engine	2,000	1,000	Excellent
Tanker 21	1992	Ford	Engle	Water Tender	--	1,900	Good
Grass 21	2001	Ford	-	Grass	300	175	Good

Oak Grove major apparatus averages 14.4 years of age and is generally in good to excellent condition. Tanker 21 is 21 years old and is scheduled for replacement in the current budget year. The replacement vehicle will be a combination engine/water tender. The other vehicles are newer and fully serviceable.

Bethel

The Bethel Fire Department operates from a single station with a total of five fire apparatus.

Figure 29: Bethel FD Major Apparatus

Apparatus Name	Year	Make	Model	Type	GPM	Tank Size	Condition
Engine 1	2008	Freightliner	-	Pumper/Tanker	1,250	1,500	Excellent
Engine 2	1979	Ford	8000 Custom Cab	Pumper/Tanker	1,000	1,000	Good
Tender 1	1992	Freightliner		Water Tender	500	2,000	Excellent
Grass 1	1983	Ford	F350	Grass Truck	N/A	250	Good
Utility 1	1998	Chevrolet	1-ton	Utility Truck	N/A	150	Good

Bethel’s equipment ranges in age from five to 34 years, with an average age of 21 years. While the vehicles are well cared for, a number will be due for replacement in the near future or have already exceeded their service lives.

St. Francis

Six vehicles constitute the St. Francis fleet of response apparatus. The department operates two engines, two water tenders and two grass trucks along with one rescue vehicle.

Figure 30: St. Francis FD Major Apparatus

Apparatus Name	Year	Make	Model	Type	GPM	Tank Size	Cond.
Engine 1	1993	Spartan	Toyne	Engine	1,250	1,000	Good
Engine 2	2000	Spartan	Toyne	Engine	2,000	1,000	Good
Tanker 1	1990	Chevrolet	Topkick	Water Tender	Trash pump	2,000	Good
Tanker 2	1998	Chevrolet	Topkick	Water Tender	500	2,000	Good
Rescue 1	2004	Ford	F250	Rescue	N/A	N/A	Good
Grass 1	2008	Ford	F350	Grass	High Pressure	300	Good
Grass 2	2006	Polaris	Ranger	UTV	40	98	Good

St. Francis fire equipment is in generally good condition and properly maintained. The department’s Engine 1 and Tanker 1 are 20 and 23 years of age, respectively and are approaching the end of their service lives. The balance of the apparatus ranges from 5 to 15 years of age.

Future Apparatus Serviceability

A key consideration in evaluating the feasibility of combining agencies into one or more consolidated entities is the costs that can be expected to be incurred for future replacement of major equipment. Apparatus service lives can be readily predicted based on factors including vehicle type, call volume, age, and maintenance considerations. In the following table, ESCI calculated the average age of fire engines and aerial ladder trucks in the subject agencies, to offer a point of reference when considering future vehicle replacement costs that may be incurred.

Figure 31: Capital Replacement Planning Summary

Agency	Number of Engines	Average Age of Engines	Number of Aerials	Average Age of Aerials
Ramsey	2	9.5	1	10
Nowthen	1	24.0	0	N/A
Bethel	2	19.5	0	N/A
St. Francis	2	16.5	0	N/A

Calculation of acceptable service lives for fire apparatus varies widely between fire departments due to differing uses, road conditions, maintenance practices and a number of additional variables. In larger, busy, fire departments, a front-line service life of 10 to 15 years is commonly combined with a five year reserve status. In smaller agencies, 15 to 25 years is more commonly found, a portion of which may be in reserve.

Fire engines in Nowthen, Bethel, and St. Francis are within approximately ten years of being due for replacement, depending on the chosen service life estimation for each. It is also noted that Oak Grove will be replacing a water tender with a combination pumper/tender this year.

Considering fire apparatus replacement from a regional perspective offers opportunities that warrant consideration. Specifically, most of the agencies maintain two fire engines and, in some cases, the second vehicle is in reserve for use when the primary engine is out of service for maintenance. Sharing of reserve apparatus can result in reduced numbers of engines overall and resultant financial savings in replacement, maintenance, and insurance costs.

Capital Improvement Planning

When considering joining multiple agencies into a single entity, it is important to evaluate the future costs that can be anticipated for the replacement of major capital assets. The most expensive capital items that make up a fire department are facilities (fire stations) and major apparatus, including fire engines and aerial ladder trucks.

ESCI reviewed capital replacement planning methods in the participating agencies. A variety of approaches are employed, ranging from well planned and appropriately funded replacement schedules to simply meeting capital needs on and as-needed basis. The findings are summarized in the following table.

Figure 32: Capital Replacement Planning Summary

Agency	Apparatus Replacement Plan	Facility Replacement Plan	Funding Method
Ramsey	Comprehensive replacement schedule in place through 2027	Current replacement plan in place for Station 2. Planned within City CIP	Capital Improvement funds are dedicated for station replacement along with proceeds from the sale of the former city hall. For apparatus, a combination of reserved funds in CIP, general fund resources and bonded debt is used
Nowthen	20-year schedule in place	No structured facility replacement plan; however, plans are in place to expand their station	Some funding is placed in reserve for apparatus. General Fund budget and bonded debt is used as needed
Oak Grove	20-year schedule in place and funded	No structured replacement plan is in place	Funding is regularly contributed to a capital replacement fund which fully funds vehicle replacement, as well as major equipment, SCBA and similar equipment. Funds are not reserved for facility replacement
Bethel	No structured plan. Chief is currently developing a replacement schedule	No structured replacement plan is in place	Funding mechanism is not defined. Some funding is available via a city Capital Fund
St. Francis	20 year replacement schedule is in place	No structured replacement plan is in place	Apparatus replacement schedule is funded via a dedicated reserve fund with an annual contribution. Supplemental funds will be needed to accommodate major purchases

Apparatus replacement schedules are maintained in Ramsey, Nowthen, Oak Grove, and St. Francis. Bethel purchases new fire apparatus when necessary and when funding is available. Formalized and funded planning for future fire station replacement is not in place in any of the participating agencies, with the exception of the currently planned replacement of Ramsey Station 2.

Looking forward, should a change in governance of some or all of the fire department be undertaken as a shared service delivery initiative, apparatus replacement planning will be critical. The agencies participating are advised to establish a structured replacement schedule with calculated future costs and identified funding strategies, viewed in the light of any shared service initiatives that may be undertaken moving forward.

Staffing and Personnel Management

Personnel resources serve as the backbone of any emergency service provider and the study departments are no exception. Regardless of the deployment of stations or the availability of vehicles and apparatus, people are the resources that place these other items into action, fulfilling the mission of the organization.

Typically, today's emergency service agencies are configured as a combination of career (paid full-time), part-time, paid-on-call, and volunteer personnel. Decisions regarding which staffing methodologies an agency utilizes are dependent upon several factors, including availability of paid-on-call or volunteer personnel, service demand, population density, socioeconomics and demographics of the community, and financial resources. This section of the report evaluates the study agencies' personnel resources including administrative staffing, operational staffing and performance, and member recruitment and retention efforts.

Administrative and Support Staff

Administrative and support staffing are those positions that, in many cases, are considered as non-operational and responsible for the management and logistical support of the department's overall operations. In a career fire department, this is common. In part-time and volunteer fire departments, however, many of the administrative and support staff often serve roles within the operational ranks of the department. The intent of this section of the document is to identify the positions that have been tasked with administrative and support duties over and above operational responsibilities and provides a summary of the total administrative and support complement available within the study region.

Only RFD uses career personnel to satisfy the administrative and support functions of the department. Each of the other departments accomplishes these functions with part-time or paid-on-call personnel.

To meet the multiple administrative demands that face a fire department, it is important to note that a substantial amount of support is provided by each department's respective city organizations. City assistance comes in the form of human resources, payroll, and finance department backing, along with a variety of other administrative functions that benefit a city-operated fire department and are not provided in a non-city agency. Costs of these services are not charged to the fire department budget and are not accounted for as separated or in-kind assistance.

Operational Staffing Levels

Each study agency’s administrative personnel are primarily emergency responders. In career departments, it is relatively easy to distinguish between administrative and support personnel and those tasked with emergency operations. In combination, paid-on-call, and volunteer agencies, the distinction is often unclear as administrative personnel are frequently also used to respond to operational incidents. The intent of this section is to distinguish dedicated operational personnel from those with additional duties of administration and support.

The figures below summarizes the members of each study agency.

Figure 33: Career Personnel

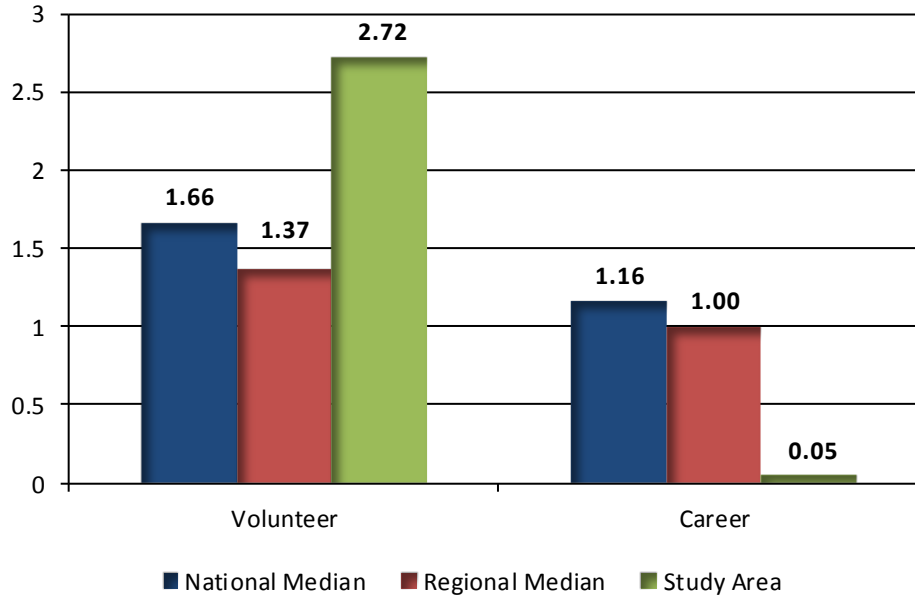
	Bethel	Nowthen	Oak Grove	Ramsey	St. Francis	Total
Fire Chief	0	0	0	1.0	0	1.0
Fire Marshal	0	0	0	1.0	0	1.0
Admin. Asst.	0	0	0	0.5	0	0.5
Total	0	0	0	2.5	0	2.5

Figure 34: Paid-on-Call Personnel

	Bethel	Nowthen	Oak Grove	Ramsey	St. Francis	Total
Fire Chief	1	0	1	0	0	2
Asst. Chief	1	0	1	2	1	5
Captain	1	0	2	3	1	7
Lieutenant	2	0	5	3	4	14
Training Officer	0	0	0	1	1	2
Inspector	0	0	0	0	1	1
Firefighter	7	0	22	43	15	87
Admin. Asst.	0	0	1	0	0	1
Total	12	0	32	52	23	119

The study area has a total of 121.5 personnel dedicated to the delivery of emergency services to the region, 98 percent of which are paid-on-call/volunteer. The following figure provides a comparison of personnel per 1,000 population against other areas nationally as well as regionally serving similar populations.

Figure 35: Comparison of Personnel per 1,000 Population



The chart above only applies to combination departments and it should be understood that NFPA (National Fire Protection Association) benchmark data does not include data specific to combination departments. Thus, the chart is a combination of the available data from the closest matching population groups. As indicated, the number of volunteers or paid-on-call personnel within the system is slightly higher than similarly sized communities across the U.S. In contrast, the number of career personnel is well below both the regional and national benchmarks.

Staffing Performance for Incidents

While raw numbers of personnel indicate a fire department’s potential staffing for incidents, it is common for a limited number of those on the roster to respond to a majority of the incidents. ESCI evaluated the overall staffing performance of each agency by analyzing the departments’ National Fire Incident Reporting System (NFIRS) data that tracks the number of personnel on each incident. The following figure illustrates the average staffing performance over the last two years.

Figure 36: Historical Average Staffing Performance

Average Structure Fire Staffing	
Bethel	N/A
Oak Grove	17.4
Ramsey	21.5
St. Francis	8.5

BFD did not record staffing information in the data supplied to ESCI but the other study agencies are able to generate sufficient personnel (excluding mutual aid personnel) to effectively mitigate most incidents.

Application and Recruitment Processes

The fire service in today's socioeconomic conditions is much different than that of 20 to 30 years ago. Historically, the volunteer fire service has been a community-based organization; today's systems are a mix of local residents, concerned citizens, and those seeking community involvement or additional income. One of the most challenging elements of today's volunteer fire service is recruiting personnel that have the desire and availability to provide the necessary time required to be a modern firefighter and emergency responder.

While the study fire departments have all developed individual plans for recruitment and retention, there are several factors that should be included in any program. Although recruitment is becoming more and more difficult, minimum physical standards should be adopted in order to reduce future liability on the organization. This can be accomplished by implementing a number of nationally recognized programs. In addition, while formal aptitude testing is not common in the volunteer or paid-on-call fire service, minimum knowledge criteria are usually included in most firefighter certification programs. This allows departments to determine whether or not personnel are capable of understanding simple written orders and standard operating guidelines that could impact personnel safety.

NFPA 1582 outlines fire department occupational health and wellness programs and contains the basic elements that should be included in a pre-employment medical examination. Many departments across North America have adopted this standard and have sought out medical professionals capable of meeting the criteria. This is an important initial step, much like minimum physical standards, that will allow departments to control future liabilities by potentially identifying medical abnormalities prior to active service for new personnel. This is also important for existing members, particularly as they age. Numerous reports have been published about how annual medical examinations have uncovered potentially deadly medical conditions prior to the event.

The final evaluation of recruitment programs involves the detail of the application process. Again, departments have evolved individually and have implemented several different components of evaluated potential candidates. The more common elements include:

- Criminal background checks
- Driver’s history
- Education and certification/credential verification
- Psychological testing
- Formal probationary periods
- Personal reference checks

This is an elementary list and should not be considered all-inclusive. Departments, particularly those within municipal organizations, have specific human resources policies that must be followed prior to hire. The following figure summarizes the recruitment and retention efforts currently used by the study agencies.

Figure 37: Summary of Application and Recruitment Elements

	Bethel FD	Oak Grove FD	Ramsey FD	St. Francis FD
Minimum Physical Standards Established	Yes	No physical standards	Yes	Yes
Aptitude of Knowledge Testing	Yes	Yes	Yes	Yes
Pre-Appointment Medical Exam Required	Yes	Yes	Yes	Yes
Pre-Appointment Medical Exam Paid	Paid by agency	Paid by agency	Paid by agency	Paid by Agency
Nature of Pre-Appointment Medical Exam	Conducted by department or contracted physician	Conducted by department or contracted physician	Conducted by department or contracted physician	Conducted by department or contracted physician
Hiring Authority	City Council	City Council	City Council	City Council
Applicant Process Includes	Complete application packet with job description and requirements, Criminal history check, Written test, Physical agility test, Psychological test, Medical examination, Probationary period	Application sheet, Criminal history check, Written test, Psychological test, Medical examination, Probationary period	Complete application packet with job description and requirements, Criminal history check, Written test, Physical agility test, Psychological test, Medical examination, Probationary period	Complete application packet with job description and requirements, Criminal history check, Written test, Physical agility test, Psychological test, Medical examination, Probationary period

While some differences exist between the application and recruitment practices of each study agency, they are generally similar. OGFD should adopt a set of minimum physical standards that is consistent

across the entire region. SFFD should work with the other study agencies to develop a program whereby the department pays for the initial medical examination prior to hire. All of these components can be part of a comprehensive occupational medicine program that should be adopted region-wide.

Testing, Measurement, and Promotion Processes

Once achieving active employment, individuals should be evaluated periodically to ensure their continued ability to perform their 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/her responsibilities and provides valuable input into the training and education development process.

Promotions of individuals within the department should follow a structured and consistent process that ensures that the most qualified candidates are offered promotional opportunities.

Figure 38: Summary of Testing, Measurement, and Promotion Elements

	Bethel FD	Oak Grove FD	Ramsey FD	St. Francis FD
Periodic Capability Testing to Measure Minimum Standards Compliance	Yes- formal periodic testing	No formal periodic testing- observation only	Yes- formal periodic testing	Yes- formal periodic testing
Periodic Performance Evaluations	No	No	No	No
Formal Promotional Testing	No	No	State Certified Fire Officer Classes required	State Certified Fire Officer Classes required

BFD, RFD, and SFFD all report that they have established periodic capability testing to ensure that personnel can continue to meet minimum standards. OGFD should work with the other departments to adopt a consistent program to continue this process of testing and measurement. None of the departments provides periodic performance evaluations to staff and all promotions are completed by appointment or vote. The study departments should work together to develop and common set of promotional guidelines and abandon any type of voting or arbitrary appointment to positions of supervision or authority.

Member Retention Efforts and Programs

For volunteer and combination fire departments across the United States, recruitment and retention of volunteer members has been one area that has suffered far more than actual service delivery. Several

research articles have been published over the past decade in an attempt to assist volunteer and combination departments in addressing the issue of declining numbers of volunteer or POC personnel. One such study, conducted by the National Volunteer Fire Council, offered an extensive list of statistics and suggestions focusing on the following issues:

- What makes members want to volunteer?
- What keeps volunteers serving?
- What makes your members leave your organization?

The study evaluated these questions and offered a vast array of information but little in the way of solid suggestions on how to address these issues. In the upper Midwestern United States, including Minnesota, volunteer rates are somewhat higher than the national averages. The 2010 rate of volunteerism in the upper Midwest was estimated at 30.7 percent overall compared to 26.3 nationally. Subsequently, civic volunteerism, of which public safety is a part, only accounted for 5.9 percent of the total volunteerism rate in 2010.

Statistics specific to the state of Minnesota indicate that only 22.7 percent of males volunteer, compared to 30.1 percent of females, and the age range with the highest volunteerism was the 45 to 54 years of age bracket at 41.7 percent for the 2008 to 2010 period. Not dissimilar to the upper Midwest regional statistics, only 7.1 percent of volunteerism is attributed to civic organizations, including fire departments; however, those opportunities labeled 'intensive' within Minnesota, such as fire departments, saw a lower rate of volunteerism than nationally, 29.6 percent to 33.8 percent, respectively.⁴

With a shift in demographics throughout the United States, the groups that emergency services agencies have relied upon for decades are no longer available or no longer have the desire to volunteer. As shown from the statistics noted above, public safety organizations, including fire departments, must be willing to thoroughly evaluate the demographics of their communities and then to take an in-depth look at the organization to identify what they have to offer as well as incentives that could be implemented and/or improved. Based on the report issued by the National Volunteer Fire Council, in general, individuals are willing to volunteer when:

- The experience is rewarding and worth their time
- The training requirements are not excessive

⁴ Ibid.

- The time demands are not excessive
- They feel valued
- Conflict is minimized

There are caveats, however, attached to these generalizations. As is well-known, time is a precious commodity in today's society, as much of the population works more hours at one, two, or three jobs in order to offset the rising cost of living and inability of most salaries to keep up with the current rates of inflation. With this in mind, fire departments must be able to make any time commitment by their members worthwhile and ensure that time is not wasted on repetitive or needless exercises that serve little purpose other than to occupy time meant for practical training. This is increasingly important as training requirements continue to rise as does call volume. The following figure summarizes the benefits provided to members in an effort to increase retention and retain the volunteer/paid-on-call nature of the study departments.

Figure 39: Summary of Member Retention Efforts and Programs Elements

	Bethel FD	Oak Grove FD	Ramsey FD	St. Francis FD
Retirement Plan	Relief Association	Relief Association	State plan used, Relief Association for all members	Relief Association
Medical Insurance (not duty related)	No medical insurance	No medical insurance	Employer paid (career)	No medical insurance
Dental Insurance (not duty related)	No medical insurance	No medical insurance	Employee paid (career)	No medical insurance
Vision Insurance (not duty related)	No medical insurance	No medical insurance	Employee paid (career)	No medical insurance
Critical Incident Stress Debriefing (CISD) Program	County or regional team	County or regional team	County or regional team	County or regional team
Volunteer/POC Compensation	\$10 per call	\$9.10 - \$21.98/hr Fire Chief - \$2,000/mo Assistant Chief - \$500/mo Captain - \$166.67/mo Lieutenant - \$83.34/mo Training Officer - \$83.34/mo Secretary - \$83.34/mo	\$12.88/hr Assistant Chief - \$4,500/yr Captain - \$3,180/yr Lieutenant - \$2,520/yr Training Officer - \$2,972/yr	\$12.00/hr Fire Chief - \$3,800/yr Assistant Chief - \$1,500/yr Inspector - \$1,000/yr Captain - \$600/yr Lieutenant - \$450/yr Training Officer - \$625/yr Maintenance - \$325/yr Secretary - \$300/yr

The major differences in the retention efforts summarized above rests within the volunteer/POC compensation rates. For any future cooperative efforts involving operations to be successful, a common set of compensation methods and rates will be necessary.

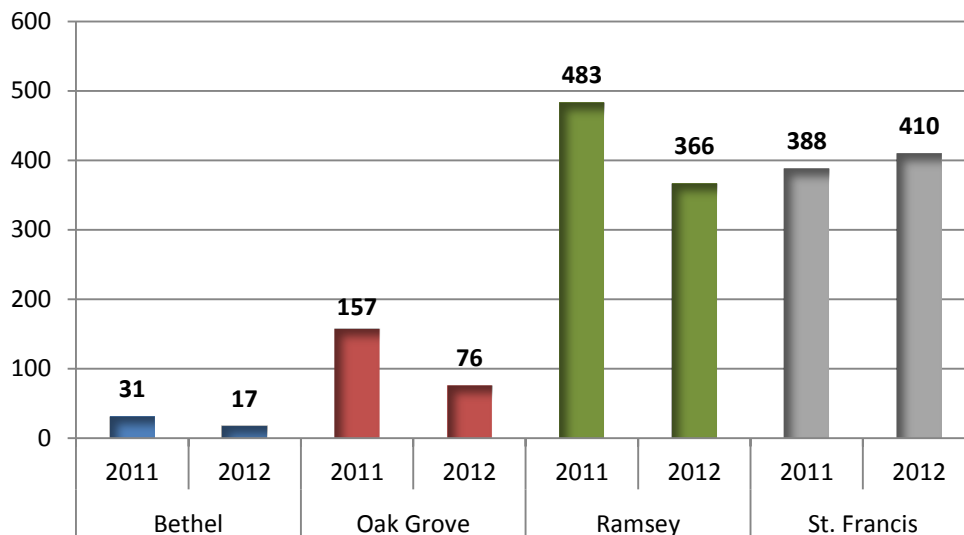
Service Delivery and Performance

Service delivery and performance are among the most visible components of a fire department's operations to the public. Thus, it is vitally important that a department routinely evaluate its delivery of core services and monitor performance to dictate changes where necessary. The three primary components of service delivery and performance for this study are demand, distribution, and response performance.

Demand

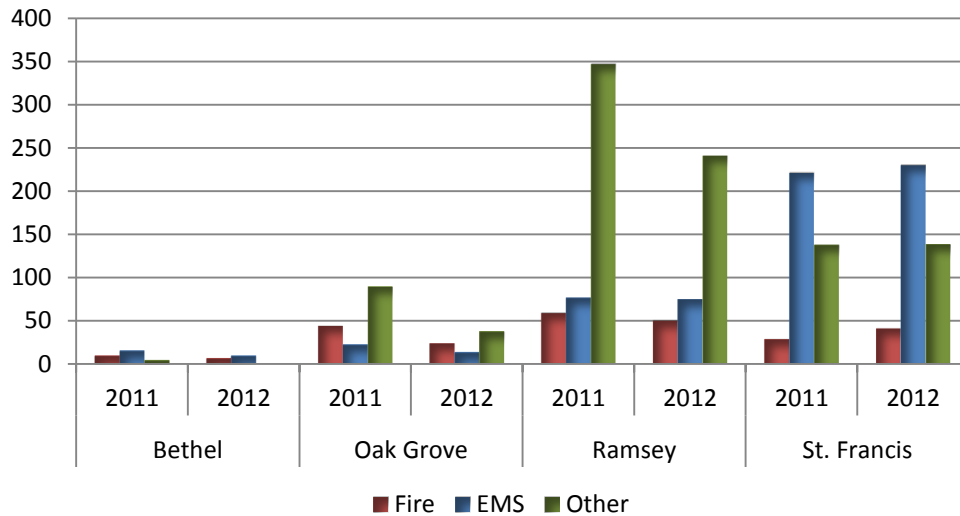
Service demand can be defined as any workload experienced by the department that impacts its ability to provide other services. This is commonly referred to as incident load or workload. Service demand can be analyzed in a variety of ways to uncover trends in usage rates or other issues that impact service delivery and efficiency. Under normal circumstances, ESCI would review both computer aided dispatch (CAD) data and National Fire Incident Reporting System (NFIRS) for each department; extracting specific data for various analyses. Unfortunately, Anoka County Communications was unable to provide CAD data for this purpose. Each department did, however, provide ESCI with two years on NFIRS data from which the analysis below was conducted. The analysis begins with a view of overall workload for the period that ranges from January 1, 2011, to December 31, 2012.

Figure 40: Total Service Demand by Department (2011-2012)



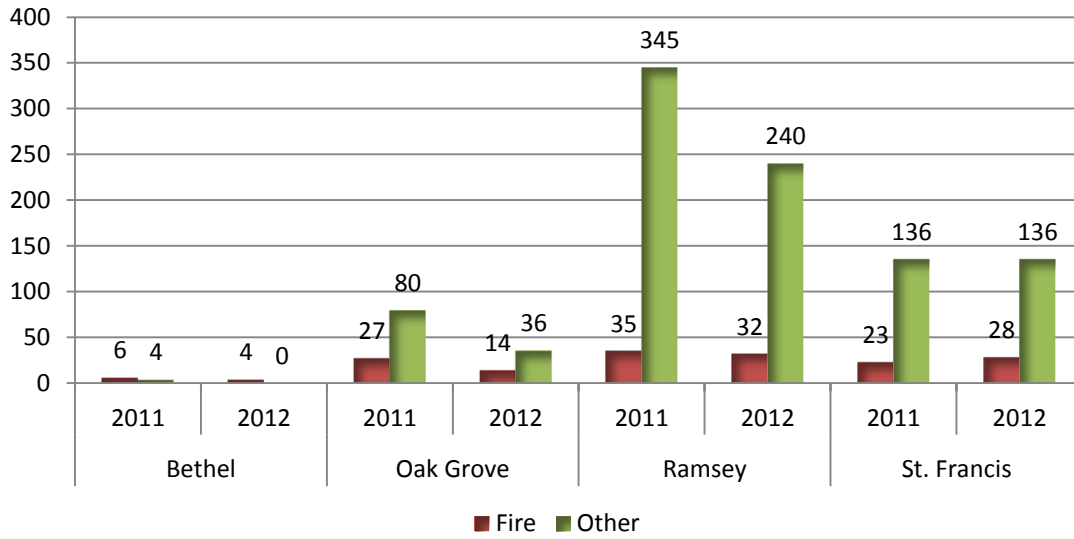
While seeing total service demand tells the story about how busy a department may be in general, evaluating that service demand by type of incident is also useful in evaluating resource utilization. Service demand by incident type is presented in the figure below by calendar year.

Figure 41: Service Demand by Incident Type (2011-2012)



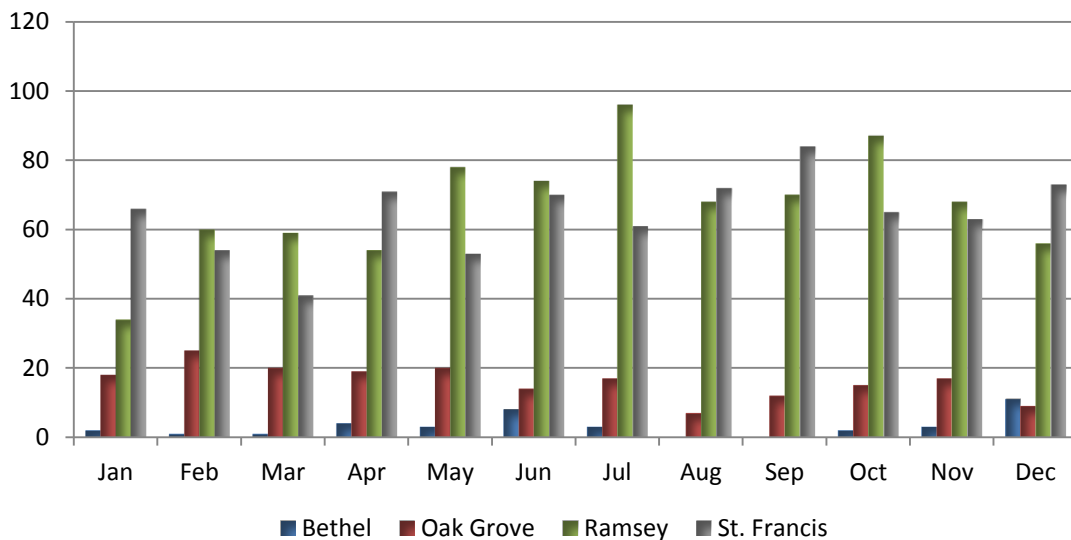
As expected, those departments that are more involved in EMS responses have a higher rate of medical incidents than other call types. While actual fire incidents comprise only a small part of each department's overall workload, incidents classified as 'other' (alarms, service calls, public assist, etc.) make up a large percentage of overall service demand. Given the fact that not all study departments provide primary emergency medical first response, ESCI also reviewed annual service demand based on only fire and other non-medical responses to present a more 'apples to apples' comparison of workload. The figure below removes medical responses from the dataset.

Figure 42: Service Demand by Incident Type (2011-2012) without Medical Responses



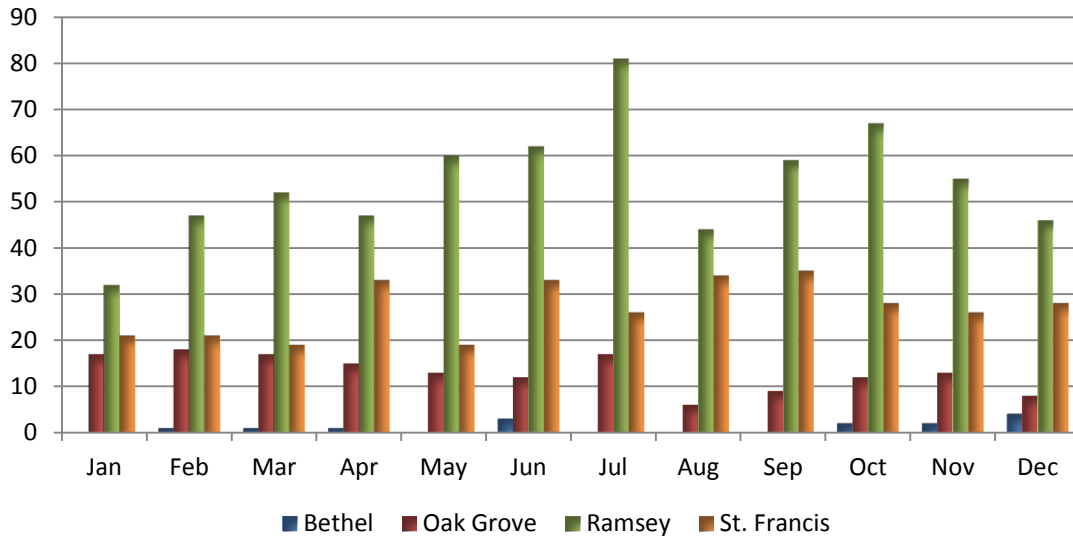
Service demand can also be evaluated temporally to determine if resources are sufficient during peak demand periods. This analysis begins with a review of service demand by month for the entire two-year data period.

Figure 43: Service Demand by Month (2011-2012)



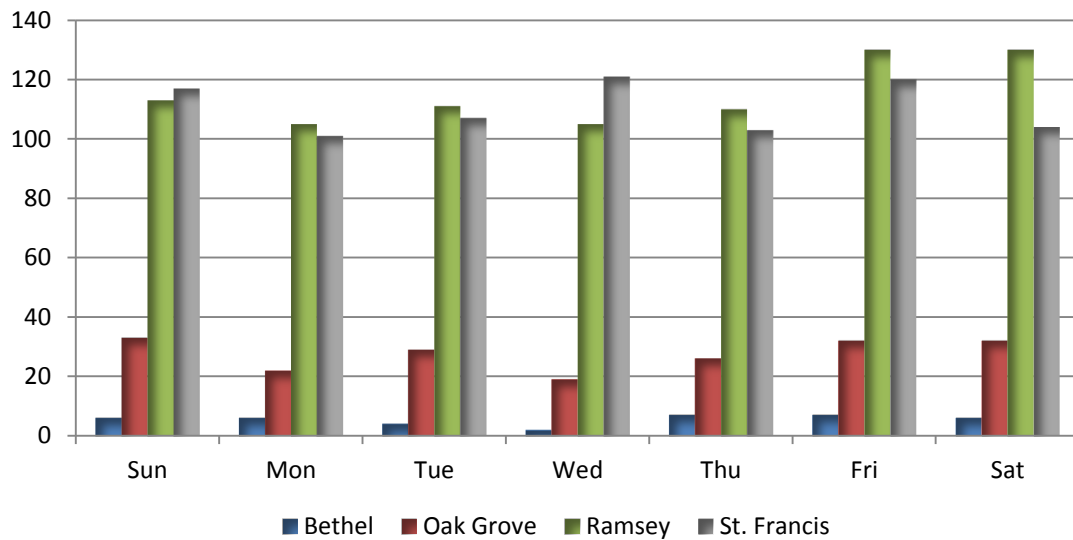
Service demand across the departments is highly variable based on this analysis and little in the way of a trend can be identified. As with annual service demand, ESCI removed medical responses to reveal the following monthly trend.

Figure 44: Service Demand by Month (2011-2012) without Medical Responses



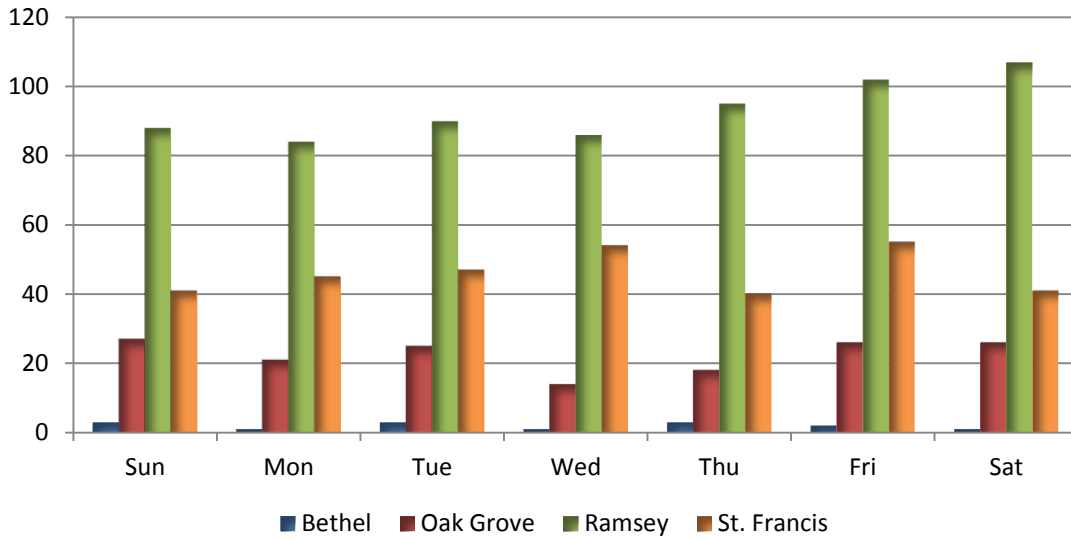
The next analysis is service demand by day of week.

Figure 45: Service Demand by Day of Week (2011-2012)



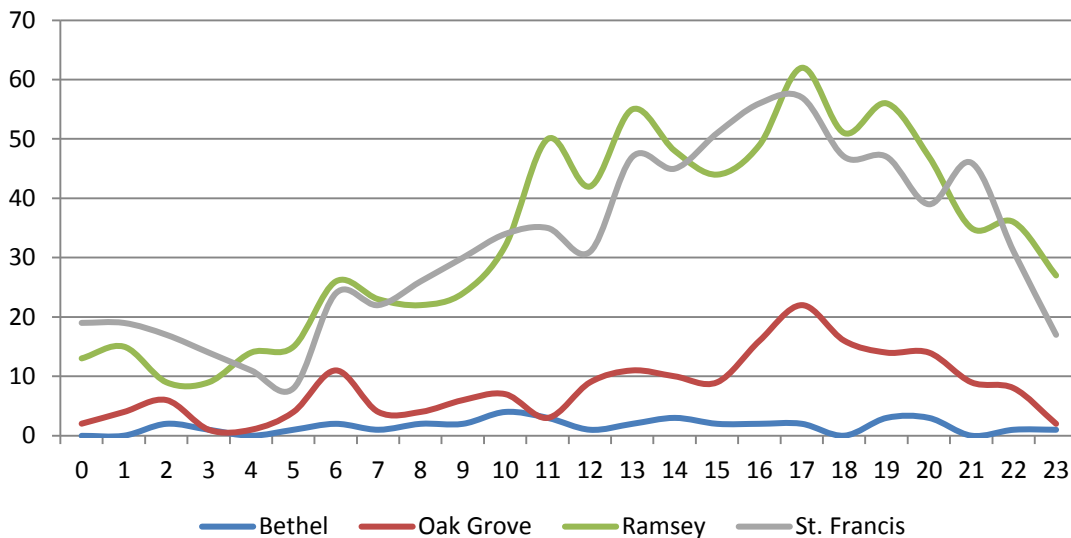
From this analysis, weekends (including Fridays) appear to be the busiest days of the week for each department but, given the call volume, the significance is minimal. As before, ESCI removed medical response to illustrate fire and other non-medical response by all departments.

Figure 46: Service Demand by Day of Week (2011-2012) without Medical Responses



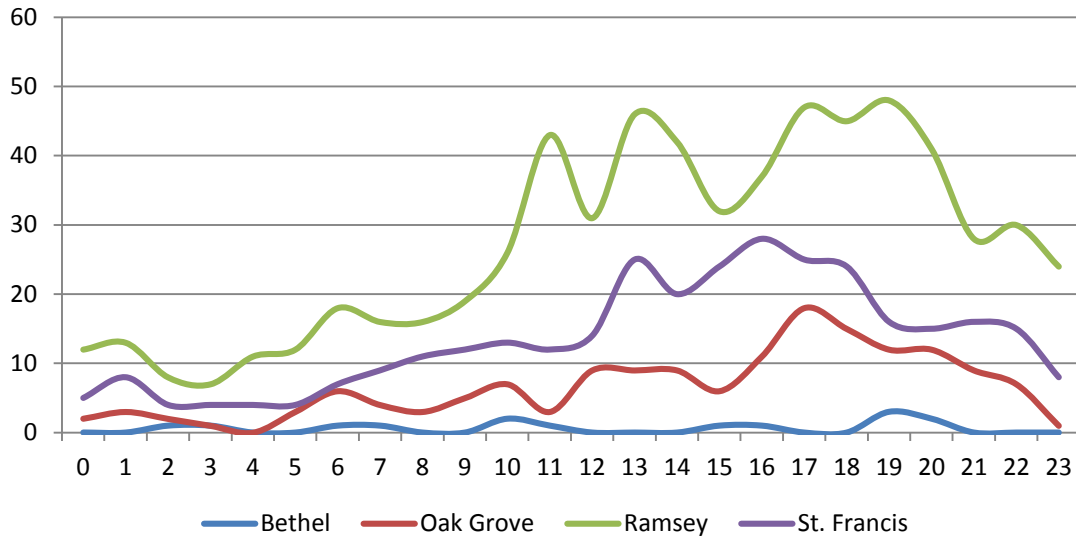
The final temporal analysis reviews service demand by hour of day.

Figure 47: Service Demand by Hour of Day (2011-2012)



While BFD's overall workload is low, little in the way of hourly variation is noted. However, service demand for OGF, RFD, and SFFD begins to increase between 0700 and 0800, peaking during the mid-afternoon and then declining into the evening. This is a typical bell curve pattern to emergency services that are primarily driven by human activity. The following figure removes medical responses as was completed for previous temporal analysis.

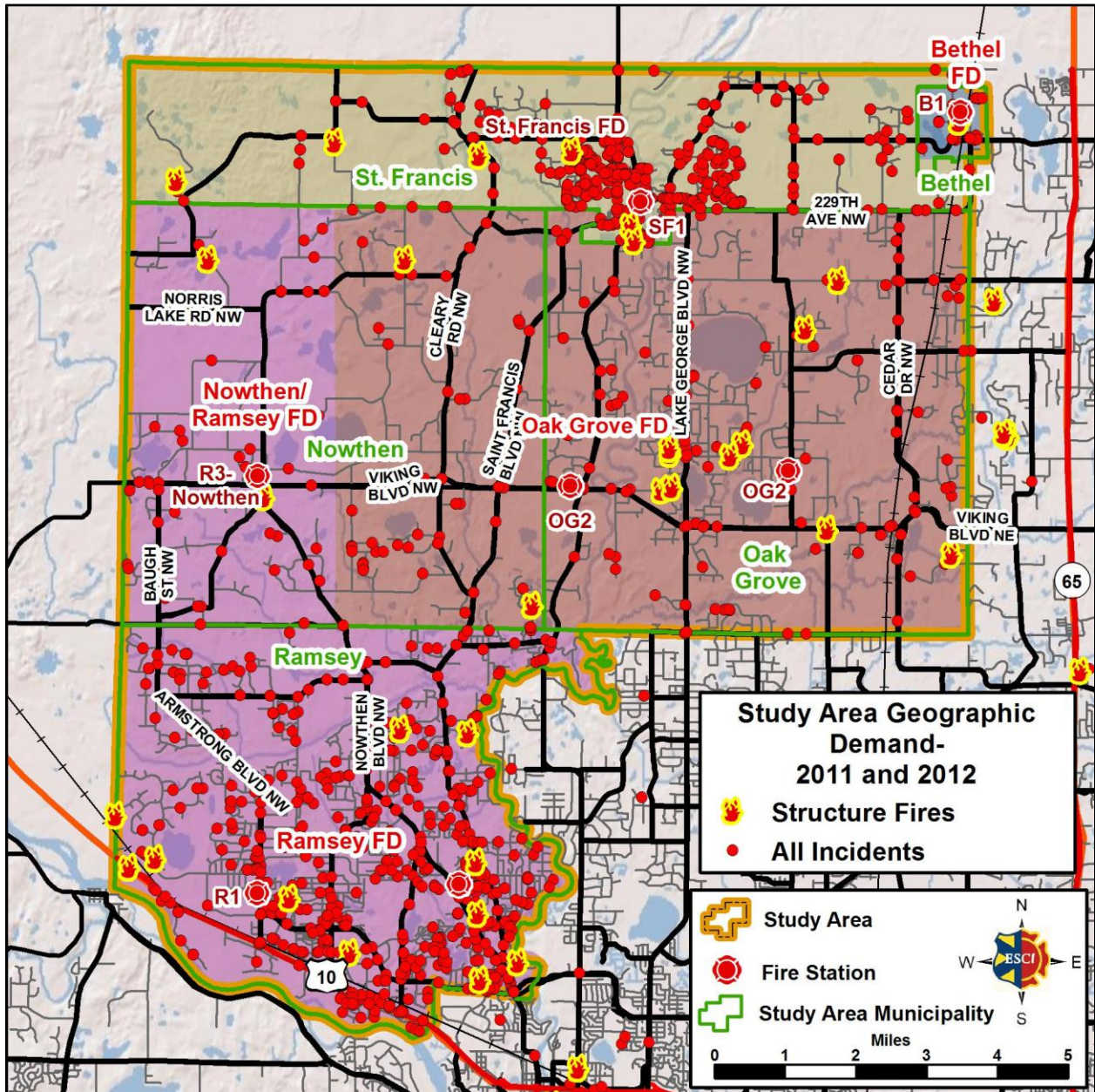
Figure 48: Service Demand by Hour of Day (2011-2012) without Medical Responses



Each department should ensure that sufficient staff is available during these higher service demand periods.

The final analysis of service demand is geographical in nature. Ensure that resources are sufficiently distributed to cover service demand is critical for emergency services delivery but identifying where the service demand is occurring must be accomplished first. The following map illustrates how the service demand is distributed across the study area.

Figure 49: Geographic Service Demand



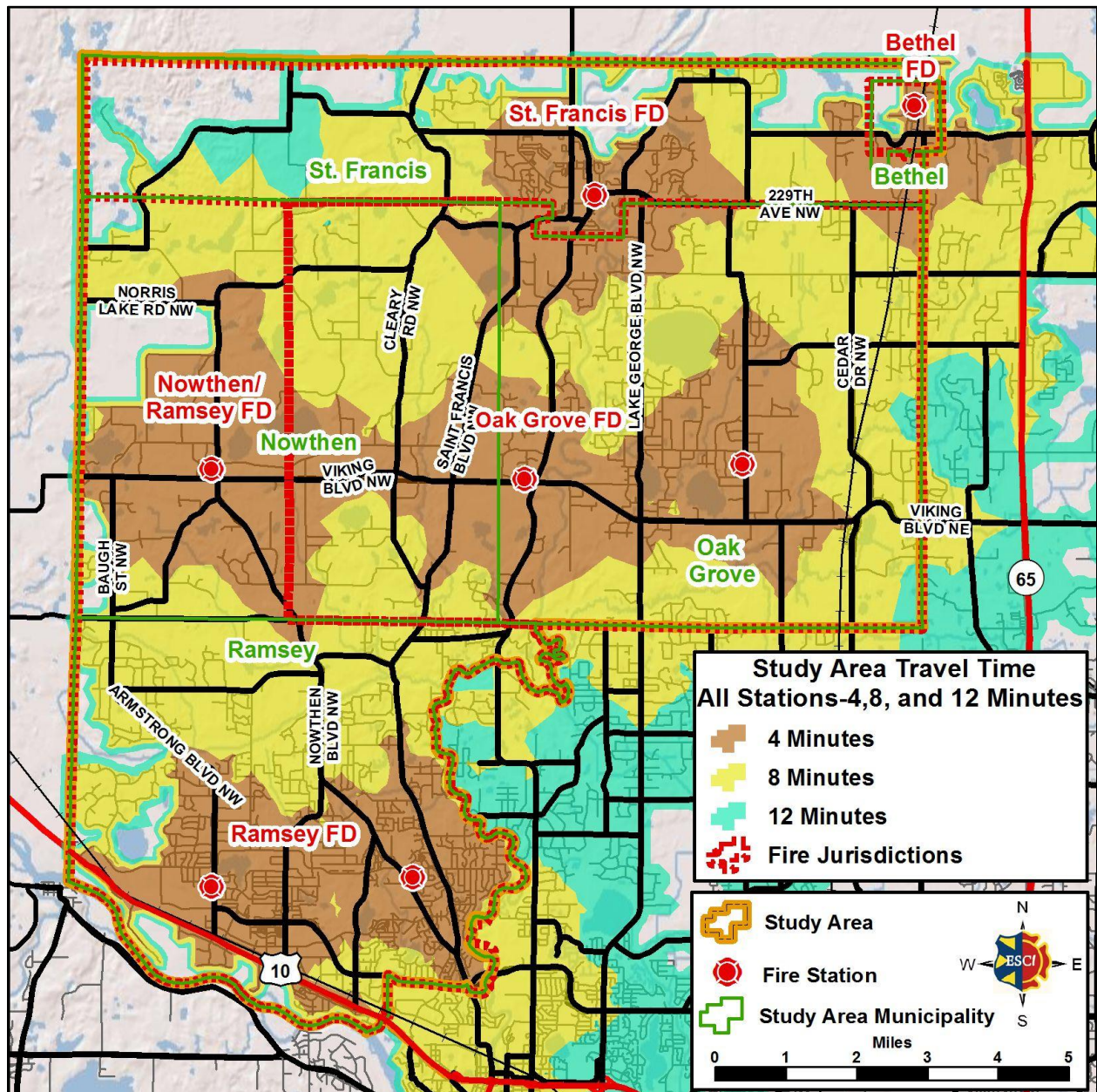
Distribution

Distribution analysis is an evaluation of how well physical resources (facilities) are deployed across a specific geographic area. For medical incidents there is little in the way of guidance on how well resources should be distributed because these incidents are primarily driven by human activity. For fire protection, however, there are several industry standards that specify how fire stations should be distributed. NFPA recommends that fire departments serving urban areas with career personnel be able to respond to 90 percent of emergency incidents within five minutes of total response time or four

minutes of travel while volunteer and combination departments be able to respond to emergency incidents on a sliding scale ranging from 9 minutes to 14 minutes total response time dependent upon population density.

The following map illustrates the four, eight and 12-minute travel models from existing stations and does not take into account station staffing or the time necessary for personnel to travel from home or work to respond apparatus from each station. This is the standard methodology for distribution analysis.

Figure 50: Four, Eight and 12-Minute Travel Capabilities



Based on the travel model, the following figure illustrates potential coverage from existing station locations.

Figure 51: Service Demand Coverage by Travel Time

	4 Minutes	8 Minutes	12 Minutes
Bethel	100 %	100 %	100 %
Oak Grove	50.2 %	85.8 %	97.3 %
Ramsey/Nowthen	70.5 %	98.2 %	100 %
St. Francis	84.9 %	95.6 %	99.5 %

The Insurance Services Office (ISO) reviews the fire protection resources within communities and provides a Public Protection Classification™ (PPC) rating system from which insurance rates are often based. The rating system evaluates three primary areas: the emergency communication and dispatch system, the fire department, and the community’s pressurized hydrant or tanker-based water supply. The overall rating is then expressed as a number between 1 and 10, with 1 being the highest level of protection and 10 being unprotected or nearly so. It is also important to note that, according to the Insurance Services Office website information on the PPC™ minimum criteria, “the ISO generally assigns Class 10 to properties beyond five road miles” from a fire station.⁵

A community’s PPC™ can affect decisions insurers make regarding the availability and price of property insurance. Many insurance companies make at least some use of the classification to price their policies, determine what types of coverage to offer, or to determine deductibles for individual homes and businesses. Regardless of the community’s classification, individual insurance companies establish their premiums, not the Insurance Services Office. The particular system that any given company uses when calculating premiums for property insurance may be affected by that company’s fire-loss experience, underwriting guidelines, and marketing strategy. This makes it extremely difficult to generalize how any improvement or decline in the PPC™ rating will affect specific insurance policies or premiums.

The following figure shows how insurance premiums might vary for two typical structures under a couple of insurance companies’ current rating schedules. While these figures are reasonable examples of the impact the PPC™ can make on insurance premiums, the value of the premium credits for the

⁵ Information obtained from the Insurance Services Office website, www.isomitigation.com.

different PPC™ ratings will vary among insurance companies. This example chart was obtained from a report published by the League of Minnesota Cities entitled “The ISO Fire Protection Rating System”.

Figure 52: Representative Insurance Premiums by Fire Protection Class

PPC Classification	\$150,000 Residence	\$1,000,000 Commercial Space
1	\$670	\$2,950
2	\$670	\$2,980
3	\$670	\$3,020
4	\$670	\$3,040
5	\$670	\$3,060
6	\$670	\$3,120
7	\$670	\$3,230
8	\$777	\$3,330
9	\$972	\$3,440
10	\$1,072	\$3,710

According to the report, there are some points to note regarding the chart:

- “In this schedule, no additional credit is given on residential property for a fire class better than 7. The reason has largely to do with the role that water supply plays in the ratings. Having a better water supply helps in fighting fires in larger commercial structures, and therefore is reflected in a better rating. But for most residential fires a lesser water supply is actually needed, and having more than that available really doesn’t help the fire department fight that particular residential fire any better. There’s some variation among insurance companies (e.g., some might allow additional credit for class 6, others might lump classes 7 and 8 together for rating purposes, etc.) but this general pattern is fairly typical for residential premium structures.
- Not all insurance companies use the ISO classifications. This is especially true for residential coverage. Some companies have their own rating systems based on their own historical loss data for the area rather than on an evaluation of the fire protection in the area. Other insurance companies use their own systems for rating the fire protection for a particular property; a company might classify properties based on the individual property’s distance from a fire station and water supply, for example”.⁶

While distribution credits in the PPC™ may not be the most important factor in the decision to add facilities, it is acknowledged that this issue does affect the community’s rating classification and should be considered. The next few paragraphs of the report examine the travel coverage based upon the PPC credentialing criteria by the Insurance Services Office.

To receive maximum credit in this section, all “built-upon” portions of a community would need to be within 1.5 road miles of an engine company and 2.5 road miles of a ladder or service company. In order

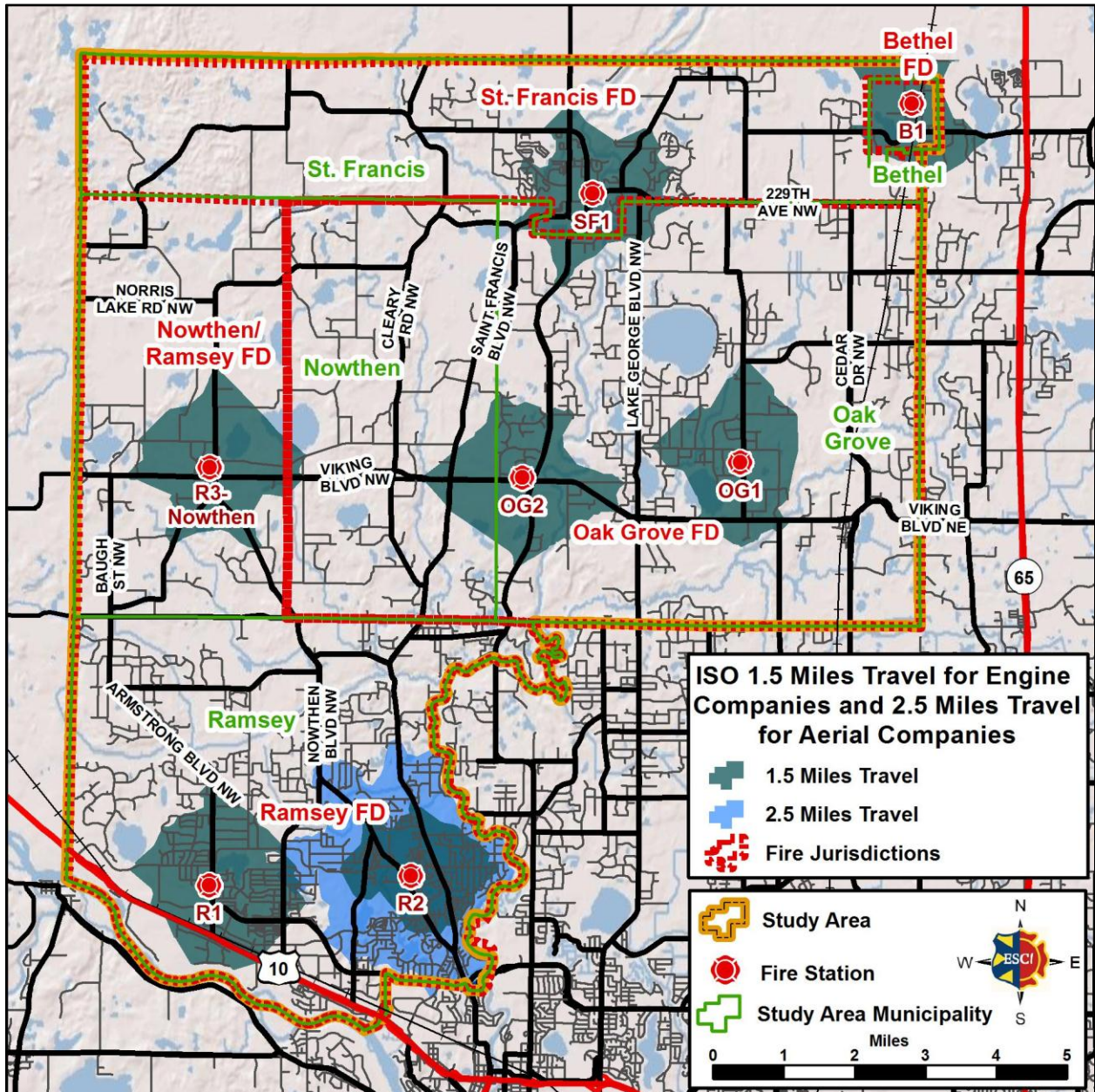
⁶ League of Minnesota Cities. *The ISO Fire Protection Rating System*. www.lmnc.org.

to determine the distribution of engine companies across “built upon” areas, ISO reviews the response area of each existing engine and identifies the number of fire hydrants within those response areas. ISO analyzes whether there are additional geographic areas of the district outside of the existing engine company response where at least 50 percent of the number of hydrants served by the largest existing response area could be served by a new engine. For ISO purposes, the response area is measured at 1.5 miles of travel distance from each engine company on existing roadways.

In similar fashion, to achieve optimum credit for the number of truck companies, ISO reviews the response area of each existing ladder company and identifies the number of fire hydrants within those response areas. ISO analyzes whether there are additional geographic areas of the district outside of the existing ladder response areas where at least 50 percent of the number of hydrants served by the largest existing response area could be served by a new truck, were one to be added. For ISO purposes, the response area is measured at 2.5 miles of travel distance from each ladder company on existing roadways. A ladder company is not required to have an elevating ladder or aerial device unless there are a sufficient number of buildings that would meet the three-story height and square footage limits. Other areas can receive similar credit for a service company without the requirement of an elevated device and can even receive partial credit for a service company if other apparatus, such as an engine, carries a complement of service company equipment.

The following figure illustrates the extent of the 1.5-mile engine company coverage and the 2.5-mile ladder/service company coverage within the study area.

Figure 53: 1.5-Mile Engine and 2.5-Mile Aerial ISO Travel Distance Coverage



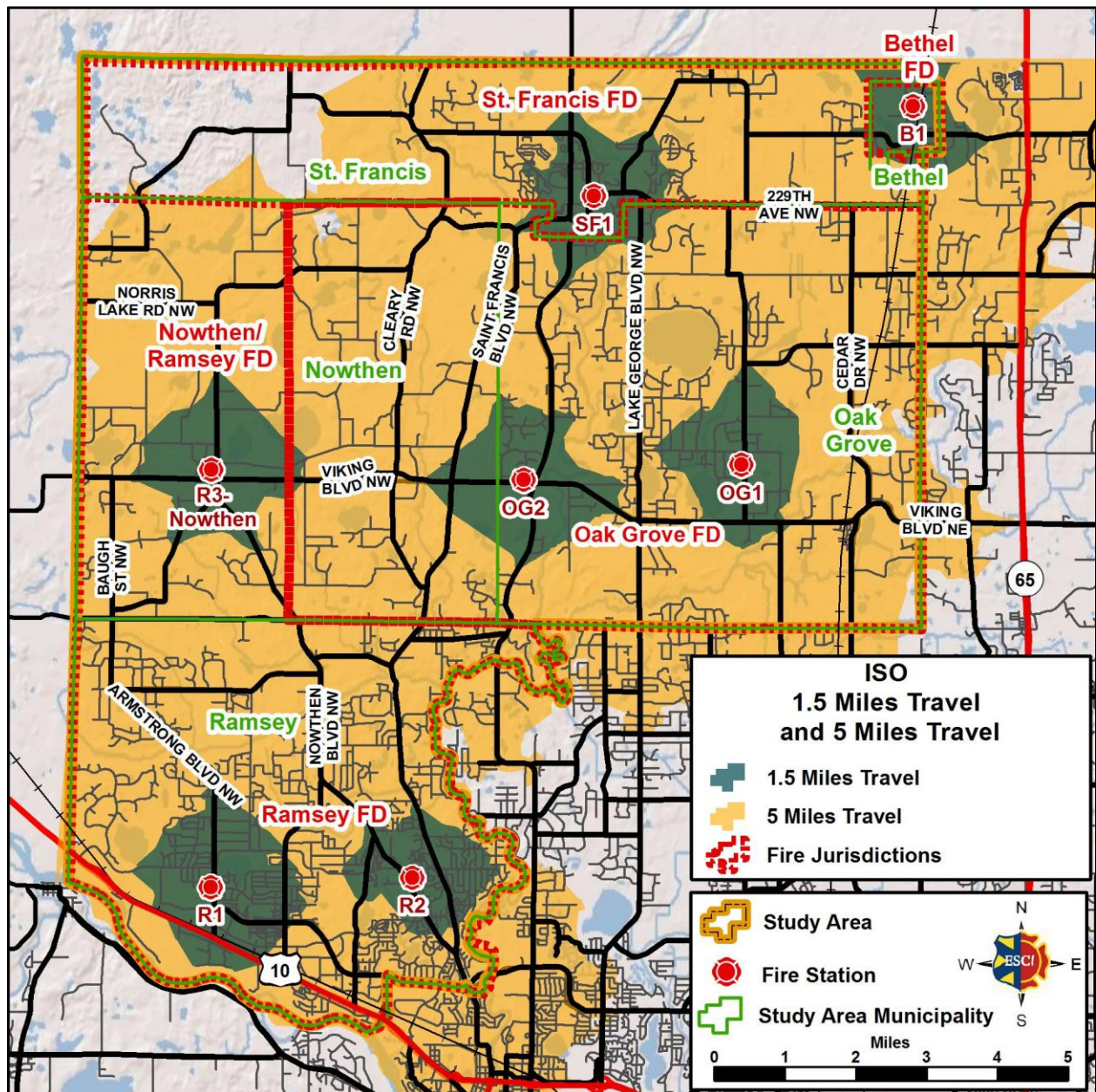
Based on current deployment, the figure below illustrates the amount of land coverage.

Figure 54: 1.5 Mile Engine and 2.5 Mile Aerial ISO Travel Distance Statistics

	1.5 Miles	2.5 Miles
Bethel	100.0 %	N/A
Oak Grove	14.3 %	N/A
Ramsey/Nowthen	29.2 %	25.7 %
Saint Francis	30.2 %	N/A

The only aerial ladder is located at Ramsey Station 2, leaving the majority of the study area outside the 2.5-mile ISO distance. However, without significant large square footage structures or structures over three stories in height, it is unlikely that this area would require an aerial ladder for improved ISO credit. The figure below provides similar representation of the five-mile overall coverage.

Figure 55: Five-Mile ISO Distance Coverage



A majority of the study area (98.1 percent), with the exception of the extreme northwest corner, is within five miles of an existing fire station.

Performance

When discussing emergency services organizations, the primary issue of question is response performance. Response performance analysis evaluates how quickly an organization responds to an incident and is more commonly known as response time. The response time continuum, the time between when the caller dials 9-1-1 and when assistance arrives, is comprised of several different components:

- Processing Time – The amount of time between when a dispatcher answers the 9-1-1 call and resources are dispatched.
- Turnout Time – The amount of time between when units are notified of the incident and when they are en route.
- Travel Time – The amount of time the responding unit actually spends on the road to the incident.
- Response Time – A combination of turnout time and travel time and generally accepted as the most measurable element.

Other performance measurements are also valuable but not utilized in this analysis of staffing and deployment, such as:

- Patient Contact Time – The actual time personnel arrived at the patient and began treatment.
- Scene Time – The total amount of time resources have spent on the emergency scene prior to transport or clearing the incident.
- Transport Time – The total amount of travel time spent transporting the patient to a definitive care facility.
- Hospital Time – The total amount of time the transporting unit spent at the receiving facility before returning to service.
- Total Commit Time – The total amount of time between dispatch and clearing the incident.

Since none of the agencies involved in this project provide transport EMS, the components evaluated in this section will be limited to those found in the first list: processing, turnout, and total response. Before entering this discussion, however, the project team felt it necessary to provide a brief discussion about how the statistical information is presented, particularly in regard to average versus percentile measures.

The 'average' measure is a commonly used descriptive statistic also called the mean of a data set. It is a measure which is a way to describe the central tendency, or the center of a data set. The average is the sum of all the points of data in a set divided by the total number of data points. In this measurement, each data point is counted and the value of each data point has an impact on the overall performance.

Averages should be viewed with a certain amount of caution because the average measure can be skewed if an unusual data point, known as an outlier, is present within the data set. Depending on the sample size of the data set, this skewing can be either very large or very small.

As an example, assume that a particular station with a response time objective of six minutes or less had five calls on a particular day. If four of the calls had a response time of eight minutes while the other call was across the street and only a few seconds away, the average would indicate the station was achieving its performance goal. However, four of the five calls, or 80 percent, were beyond the stated response time performance objective.

The reason for computing the average is because of its common use and ease of understanding. The most important reason for not using averages for performance standards is that it does not accurately reflect the performance for the entire data set.

With the average measure, it is recognized that some data points are below the average and some are above the average. The same is true for a median measure which simply arranges the data set in order and finds the value in which 50 percent of the data points are below the median and the other half are above the median value. This is also called the 50th percentile.

When dealing with percentiles, the actual value of the individual data does not have the same impact as it did in the average. The reason for this is that the percentile is nothing more than the ranking of the data set. The 90th percentile means that 10 percent of the data is greater than the value stated and all other data is at or below this level.

Higher percentile measurements are normally used for performance objectives and performance measurement because they show that the large majority of the data set has achieved a particular level of performance. This can then be compared to the desired performance objective to determine the degree of success in achieving the goal.

For this analysis, ESCI was most interested in the ability to respond the appropriate resources to the highest percentage of incidents. For this reason, ESCI analyzed NFIRS data from each department for 2011 and 2012 and generated average and 90th percentile response performance for emergency incidents only.

Normally, this analysis would begin with an evaluation of call processing time within the communications/dispatch center. However, since computer aided dispatch (CAD) data was not available for this project, departmental NFIRS data was used and does not contain the appropriate timestamps to provide this analysis.

The second component of the response time continuum is that of turnout, or the time between when resources are dispatched and when they are en route to the incident. Turnout times can vary based on staffing patterns and will typically be longer for volunteer or paid-on-call departments. *NFPA 1710*, the standard that applies to career organizations, recommends a turnout time performance of 60 seconds for medical incidents and 1:20 (1 minute 20 seconds) for fire incidents, when measured at the 90th percentile. *NFPA 1720*, the standard that applies to volunteer and combination departments, does not outline a specific turnout time performance recommendation. In order to measure turnout time, incident data must be provided with both 'dispatch' time and 'en route' time. Unfortunately, NFIRS does not require that 'en route' be recording in the incident report. As mentioned previously, CAD data (the typical source for this performance measure) was not available from Anoka County so an analysis of turnout time performance could not be performed.

Regardless of what the call processing or turnout times are for a particular organization or a region, the most important aspect of response is actually getting the appropriate resources on the scene of the emergency.

NFPA 1710 recommends a first unit arrival response performance of five minutes when measured at the 90th percentile regardless of population density. *NFPA 1720* allows a tiered response performance objective based on varying levels of population density as illustrated in the figure below.

Figure 56: NFPA 1720 Response Performance Recommendations⁷

Classification	Population Density per Square Mile	Response Performance	
		Target	Percentile
Urban	>1000	9:00	90 th
Suburban	500 to 999	10:00	80 th
Rural	<500	14:00	80 th
Wilderness/Remote	Undeveloped	Undetermined	90 th

⁷ NFPA 1720 Volunteer Department Staffing and Response Target Table from Section 4.3.2.

The following chart illustrates the total response performance for the study agencies from time of dispatch to arrival at the incident for 2012.

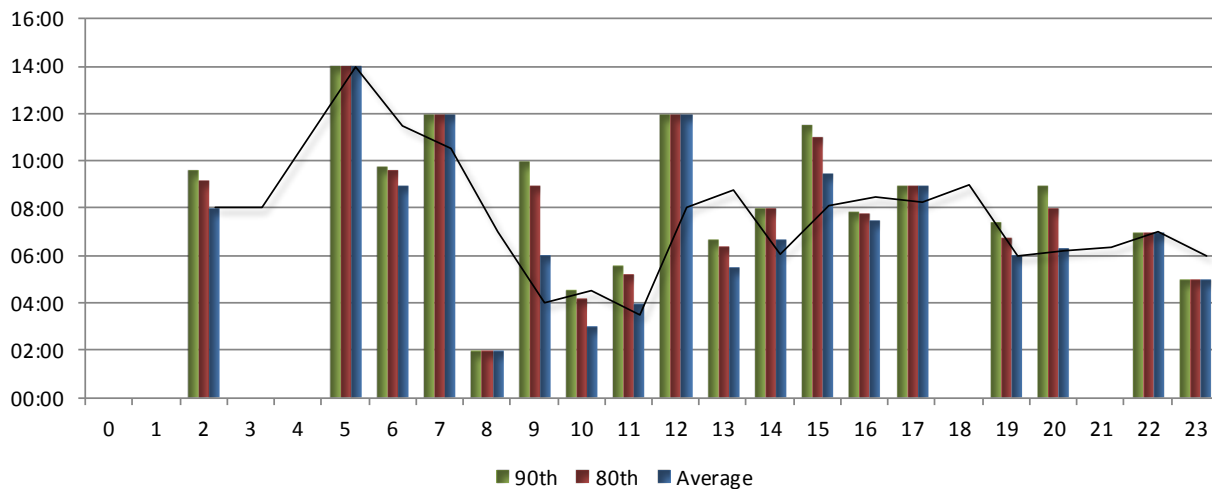
Figure 57: Response Time Performance, 2012

	Average	80th	90th
Bethel	06:35	08:00	08:00
Oak Grove	08:10	12:00	13:00
Ramsey	08:05	11:00	12:54
St. Francis	09:55	14:00	15:00

Based on the analysis of calendar year 2012 incident data, and assuming a response performance target in line with *NFPA 1720* recommendations, only BFD is meeting or exceeding the recommended performance.

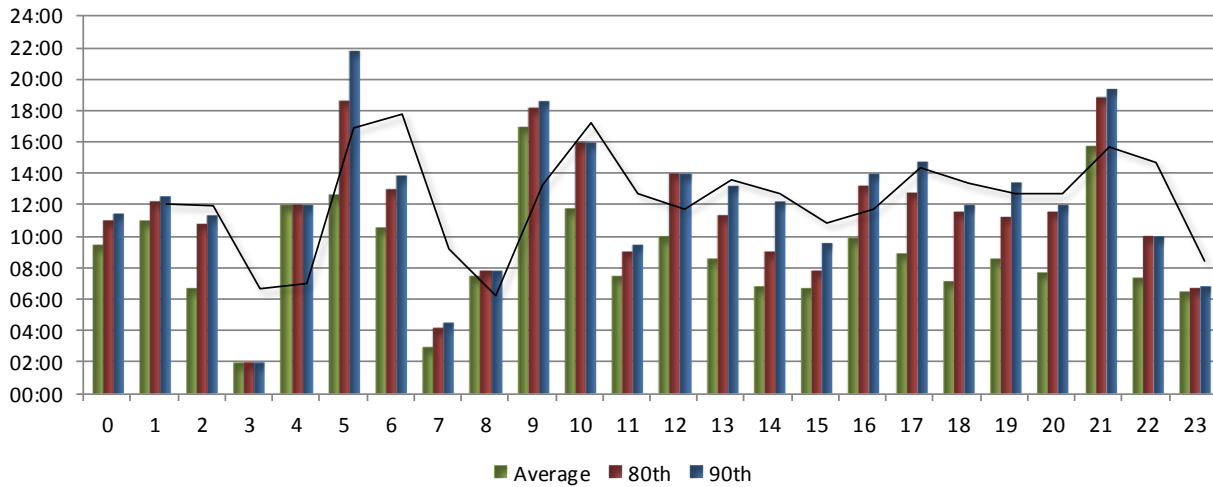
Although overall response time is useful in determining general performance for an organization, evaluating that data temporally sometimes allows policymakers and administrators to identify specific times of the day when performance could be improved. The figure below illustrates BFD’s actual response performance by hour of day both as an average and 90th percentile.

Figure 58: 2012 Response Time by Hour of Day - BFD



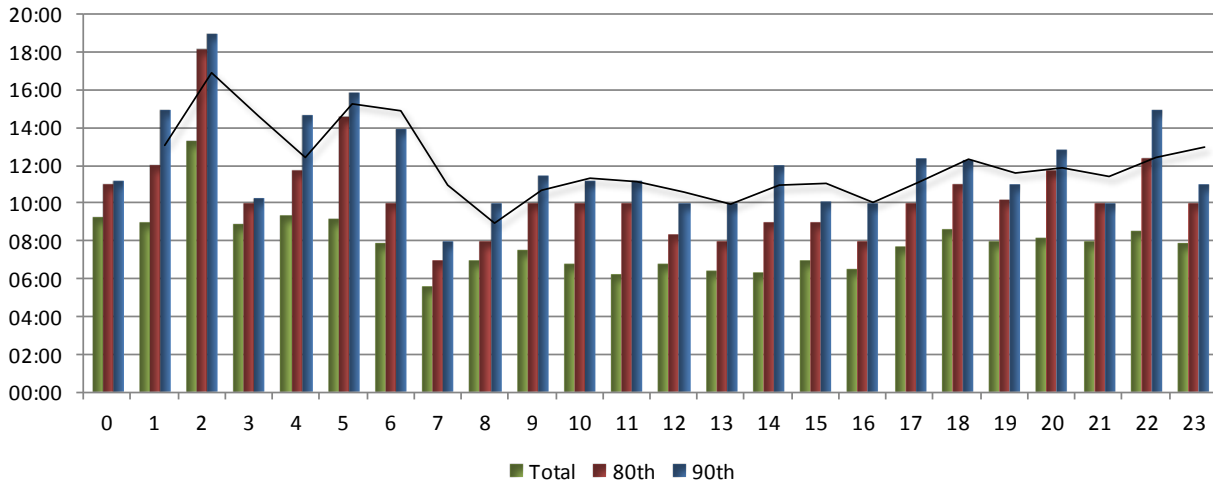
As is common with most emergency services providers, both average and 90th percentile response performance is slightly longer during the overnight hours as personnel must be awakened to respond to incidents. The following figure illustrates the same analysis for OGF.

Figure 59: 2012 Response Time by Hour of Day - OGF



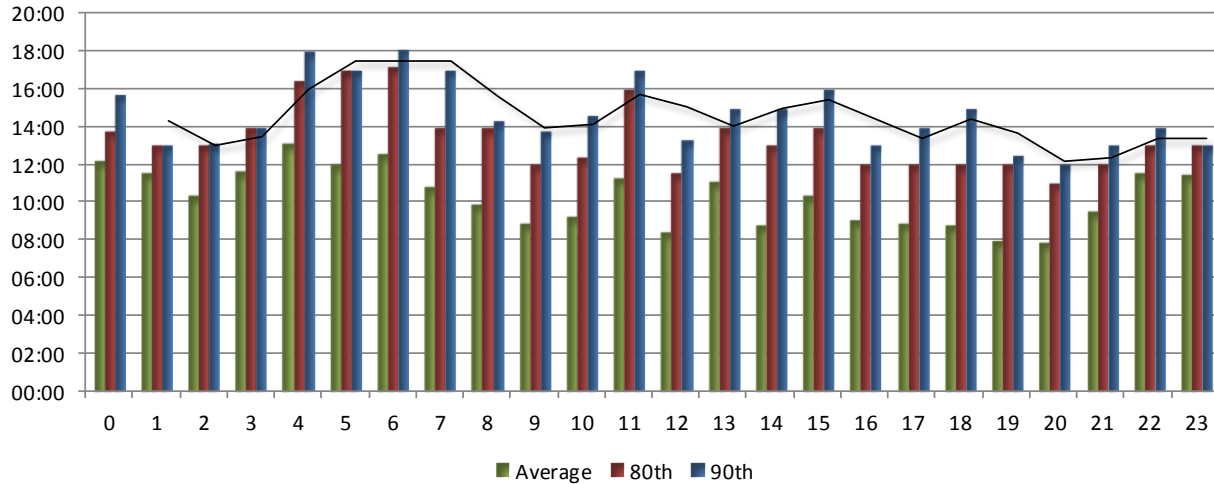
While OGF experiences a slightly more varied hourly response performance, there is little in the way of a defined pattern; in fact some of the shortest response times occur during the overnight and early morning hours. The following figure illustrates the same analysis for RFD.

Figure 60: 2012 Response Time by Hour of Day - RFD



RFD experiences a slightly more stable overall response performance at the 80th percentile but its average performance is very similar to the other departments; longer during the overnight hours. The following figure illustrates the same analysis for SFFD.

Figure 61: 2012 Response Time by Hour of Day - SFFD



As with RFD, SFFD experiences a more stable response performance, albeit longer, with only a slight increase in overall performance during the overnight hours.

Mutual and Automatic Aid Programs

Communities have traditionally forged limited agreements to share resources under circumstances of extreme emergencies or disasters. These agreements, known as mutual aid agreements, allow one community to request the resources of another in order to mitigate an emergency situation or disaster that threatens lives or property. There are numerous mutual aid agreements, both formal and informal, in place between fire, police, and emergency medical agencies within the study area, both with participating departments and those surrounding the study area.

However, it is important to define the level of mutual aid systems in place in this region. Mutual aid can take several forms, and this analysis of mutual aid programs will begin with a brief explanation of the various types of mutual aid systems used by the fire service in various parts of North America.

Basic Mutual Aid upon Request

This form of mutual aid is the most basic and is typically permitted under broad public laws that allow communities to share resources upon request during times of disaster or during local and regional emergencies. Often, these broad laws permit communities to make decisions quickly regarding mutual aid under specified limitations of liability. These broad laws can allow a community to tap into resources from their immediate neighbors, as well as very distant resources in communities with which

they have very little day to day contact otherwise. Under this level of mutual aid, specific resources are typically requested by the fire department, through the appropriate chain of command, and sometimes coordinated by local or regional emergency management personnel. Depending on the level of the request, the response can sometimes be slow and the authorization process may be cumbersome due to the exchange of official information or even elected official's approval that may be required.

Written Mutual Aid Agreements

This form of mutual aid takes the previous form one step further by formalizing written agreements between communities (typically immediate neighbors in a region) in an effort to simplify the procedures and, thus, cut response time. Usually, these written agreements include a process that takes the request and response authorization down to a lower level in the organization, such as the Fire Chief or other incident commander. By signing such agreements, communities are "pre-authorizing" the deployment of their resources under specified circumstances as spelled out in the agreement. Most often, these agreements are generally reciprocal in nature and rarely involve an exchange of money for service, though they may include methods for reimbursement of unusual expenses for long deployments.

Automatic Aid Agreements

Once again, this form of mutual aid takes the process an additional step further by spelling out certain circumstances under which one or more community's specific resources will respond automatically upon notification of a reported incident in the neighboring community. In essence, automatic aid agreements expand a community's initial first alarm response to certain types of incidents by adding resources from a nearby neighbor to that response protocol. Typically, such agreements are for specific geographic areas where the neighbor's resource can be expected to have a reasonable response time and are for only specific types of incidents. An example of such an agreement would be having a neighboring community's engine respond to all reported structure fires in an area where it would be closer than the second or third-due engine from the home community. In other cases, the agreement might cover a type of resource, such as a water tender or aerial ladder, than the home community does not possess. An example of this would be having a neighboring community's water tender respond to all reported structure fires in the areas of the home community that do not have pressurized hydrants.

Automatic aid agreements may be purely reciprocal or they may involve the exchange of money for the services provided. Purely reciprocal agreements are common, but typically are used where each community has some resource or service it can provide to the benefit of the other. These services or

resources need not be identical. For instance, one community may send an engine to the other community on automatic response to structure fires, while the second community agrees to send a water tender to the first community's structure fire calls in exchange. These reciprocal agreements are sometimes made without detailed concern over quantification of the equality of the services exchanged, since they promote the effectiveness of overall services in both communities. In other cases, the written agreements spell out costs that one community can charge the other for services, typically where no reasonable reciprocation can be anticipated.

One primary purpose of automatic aid agreements is to improve the regional application of resources and staffing. Since fire protection resources are most frequently established because of the occupancy risks in a community and not necessarily a heavy workload, these resources may be idle during frequent periods of time. While fire departments make productive use of this time through training, drills, pre-incident planning, and other functions, the fact is that these expensive resources of apparatus and staff are not heavily tied up on emergency incidents. Communities that share certain resources back and forth are, in essence, expanding the emergency response workload of those units across a larger geographic area that generally ignores jurisdictional lines. This expanded use of resources can strongly benefit both communities that might otherwise have significantly increased costs if they had to procure and establish all the same resources alone. Automatic aid can be used effectively to bolster a community's fire protection resources, or to reduce unnecessary redundancy and overlap between communities.

Support Programs

Although the delivery of fire suppression and emergency medical services lies at the core of each department's mission, it is necessary for every emergency services agency to be supported by other activities. These activities provide the basis for employee training and education, career development, public safety education, fire prevention, and code enforcement.

Training

Providing safe and quality fire and emergency services requires a well-trained workforce. Training and education of personnel are critical functions for each study agency. Without quality, comprehensive training programs, emergency outcomes are compromised and emergency personnel are at risk. "One of the most important jobs in any department is the thorough training of personnel. The personnel have the right to demand good training and the department has the obligation to provide it."⁸

Proper training of emergency services personnel starts prior to being hired or joining an agency. Specific knowledge and skills must be obtained to achieve a basic understanding of the roles and responsibilities of an emergency responder. Several of the study agencies have entered into a joint effort to offer a combined 'rookie school' that provides this basic introductory training. Beyond the introductory issues, personnel should be actively engaged on a regular basis and tested regularly to ensure that skills and knowledge are maintained. In order to accomplish this task, agencies must either have a sufficient number of instructors within their own organization or be able to tap those resources elsewhere. Training sessions should be formal and follow a prescribed lesson plan that meets specific objectives. In addition, a safety officer should be dedicated to all training sessions that involve manipulative exercises.

Beyond the regular training offered to general staff, certain individuals should be offered specific officer development training in order to prepare them for more responsibility as they progress through the agency's command structure. Placing individuals in positions of authority without first giving them the tools to succeed often ends in failure and discouragement by both the officer and their subordinates.

General Training Competencies

The first comparison reviews the fundamental components that are considered as the most foundational elements of an effective training program.

⁸ Klinoff, Robert. *Introduction to Fire Protection*, Delmar Publishers, 1997. New York, NY.

Figure 62: General Training Competencies

	Ramsey/ Nowthen FD	Oak Grove FD	St. Francis FD	Bethel FD
Incident Command	NIMS. County wide system being developed	NIMS based	NIMS	Irregularly
Accountability procedures	County wide system being developed	County wide system being developed	County wide system being developed	County wide system being developed
Policy and procedures	Incorporated into ongoing training	Yes	Incorporated into ongoing training	Yes
Safety procedures	Yes, and included in SOGs	Included in SOGs currently under development	Included in SOGs	Yes
Recruit academy	Physical agility test on entry. 1 Year probationary period during which new hires complete the recruit academy which includes Firefighter I and II and Haz Mat Operations certification. Also first responder during fire 2 years 3 personnel are members of	Uses county-wide recruit academy. Graduates obtain FF I, FF II and Haz Mat Operations and First Responder EMS certification.	Physical agility test on entry. 1 Year probationary period during which new hires complete the recruit academy which covers Firefighter I & II and Haz Mat Operations. Also first responder during fire 2 years	Uses county-wide recruit academy. Graduates obtain FFI, FFII and Haz Mat Operations and First Responder EMS certification.
Special rescue (high angle, confined space, etc.)	County Specialized Rescue Team. In-house confined space rescue team at technician level, Ice and Water Rescue	Ice rescue only	Ice and Water Rescue	Confined space basic training only
Hazardous materials	Operations level	Operations level	Operations level	Operations level
Wildland firefighting	Annual one day training – not red-carded	Trained, not red-carded	Annual one day training – not red-carded	Uses DNR training when available.
Vehicle extrication	Yes	Yes	Yes	Yes
Defensive driving	Annual training is mandatory and enforced	Defensive driving course completed about every two years	Annual training is mandatory and enforced. Outside instructor used.	Annual course by Fire Inc.
EMS skills and protocol?	EMT-Basic level	First Responder is minimum requirement. About 6 EMT-Basics	EMT-Basic level	First Responder, 3 EMT-Basic. EMS training provided every other month by ambulance provider.

ESCI reviewed the general training competencies identified in the fire departments' training programs and found that all cover the fundamental topic areas that should be addressed in an effective training program. It is noted that personnel accountability practices are under development on an area wide basis. Accountability on the fire scene is of critical importance and should be prioritized by all of the agencies as a collaborative undertaking.

Recruit training is delivered via a county-wide, coordinated program. Upon completion, new firefighters receive Firefighter I and II certification, along with Hazardous Materials – Operations classes and First Responder medical training. The approach is commendable.

Training Administration

To function effectively, a training program needs to be managed. Administrative program support is important, though frequently weakly addressed. An additional element of effective administration is the development of program guidance in the form of training plans and goals.

Figure 63: Training Administration

	Ramsey/ Nowthen FD	Oak Grove FD	St. Francis FD	Bethel FD
Director of training program	Paid on Call Training Officer	Paid on Call member is designated as Training Officer	Paid On Call Lieutenant/ Training Officer	Volunteer Captain is assigned to training
Goals and objectives identified	Fire Instructor & Fire Officer I Certification required for Officer levels. Asst. Chief Fire Officer I and II. Training program targets Certification Continuing Education requirements.	Clearly defined direction to meet continuing education requirement for FF I and FF II, as well as first responder. No written plan but defined.	No written goals. Annual training plan is developed via the officers. Identify training need and mandatory subjects. Fundamental goal is maintenance of FF I, FF II and EMS certification levels.	No written Goals and Objectives. Meet annually to identify training needs and develop annual schedule to address identified needs and NFPA requirement.
Governing body support and concurrence	Annually required training based on NFPA	Supportive	Supportive	Somewhat
Clerical support	City administration completed training records, documentation	Training Officer	Training Officer only	None

None of the participating agencies has a full-time, dedicated, training officer position in place. Instead, volunteer and POC personnel are assigned training responsibilities as an additional duty. Management and administration of training programs varies between the participants. While none of the agencies have formally defined training program goals and objectives in place, all were able to clearly articulate the foundation upon which the program is planned and managed to provide direction and planning assets to their educational efforts.

Each department within the study area conducts training unilaterally with limited interaction with neighboring departments, aside from the shared recruit academy. From a regional perspective, all of the agencies involved could benefit from a centralized and collaborative approach to training delivery. A unified training practice of training needs assessment, scheduling, and regionalized delivery system offers increased firefighter safety and effectiveness as well as potential savings in costs and personnel efficiency.

Training Resources

To be able to deliver effective training to fire and EMS personnel, some resources are necessary to arm the trainer with the tools needed to provide adequate educational content.

Figure 64: Training Resources

	Ramsey/ Nowthen FD	Oak Grove FD	St. Francis FD	Bethel FD
Training facilities (tower, props, pits)	Several portable props. Stations have hose towers with ladder area. Use Technical College mobile props.	No facilities available locally. Closest training ground is in Fridley. Use F.I.R.E. Inc. ⁹ for live fire and related training.	Some portable props. Station has hose tower with ladder and rappelling area. Use Technical College mobile props.	Classroom space is used at city hall. F.I.R.E Inc. brings in mobile props at times.
Live fire prop	None, but have access via the college	None. Fire Inc. mobile prop used	None, but have access via the college	None
Driving grounds	City streets and parking lots	City streets an parking lots	City streets and parking lots	City streets and parking lots
Classroom facilities	Large classroom at Station 1. Seats 96. Smaller classroom at Station 2 also	City council chambers at station 1 used. Good sized, well equipped.	Small classroom at Station seats 18.	Several classrooms at city hall.

⁹ F.I.R.E Inc. is Fire Instruction and Rescue Education, Inc., a private fire training service

	Ramsey/ Nowthen FD	Oak Grove FD	St. Francis FD	Bethel FD
Projection, computer and AV equipment	Well equipped	Well equipped	Well equipped	Uses city resources, meets basic needs
Books, magazines, instructional materials	Well supplied	Well supplied	Well supplied	Uses Action Training video programs
Training Procedures Manual:				
Manual developed and used	No manual, however drill content is assembled in a common reference file	Under development	None	No manual. Uses internet and Action Training
IFSTA manuals used	Jones and Bartlett manuals used	IFSTA manuals used	Jones and Bartlett manuals used	Jones and Bartlett

Of the four departments, none has a dedicated drill ground or training facility. Instead, the training officers make use of available small props, city streets, and parking lots for drilling. Additionally, resources from F.I.R.E. Inc., a private training provider, are used when possible, including a mobile live fire prop. For classroom delivery, Ramsey’s Station 1 is well suited with excellent facilities. The other stations are limited to smaller meeting rooms that are also used for other purposes, compromising use at times as classrooms.

Training Scheduling

Of equal importance to program planning, educational contact hours, and available tools is the scheduling necessary to obtain the maximum possible attendance, which is especially challenging with volunteer and POC staffing configurations. Training scheduling in the study agencies is summarized in the following table:

Figure 65: Training Scheduling and Procedures

	Ramsey/ Nowthen FD	Oak GroveFD	St. Francis FD	Bethel FD
Career training schedule	N/A	N/A	N/A	N/A
Volunteer/POC schedule	Every Wednesday of the month. Class offered twice, morning and evening	Mondays during the day, repeated on Wednesday evenings. Approximately 3 hours each.	Every Wednesday. Class offered twice, morning and evening. Also 4 to 5 Saturday training sessions annually.	Training twice monthly. One class per month is fire related and the other is EMS training. Firefighters attend training at outside departments also.
Annual training hours defined	66% minimum drill attendance per quarter. Well enforced	First Responder continuing education minimum plus 68% drill attendance overall plus several mandatory classes. Enforced well	50% minimum drill attendance annually. Well enforced	Must attend 50% of drills - enforced
Record-keeping				
Individual training files maintained	Yes	No	Yes	Yes
Records and files computerized	In FireHouse Software	Stand-alone spreadsheet	Image Trend	In Excel spreadsheet

Training of volunteer/POC members is similar across the study area. All agencies indicate that their training objective is that of meeting or exceeding the minimum requirements necessary to meet Firefighter I continuing education requirements as a minimum.

The frequency of training sessions is consistent in Ramsey/Nowthen, Oak Grove, and St. Francis, but differs in Bethel. The first group trains weekly and also repeats classes a second time each week to accommodate attendance by POC personnel. Bethel schedules drill only twice monthly, providing personnel with approximately half the training contact time.

Fully effective training of firefighters necessitates a higher number of classroom and hands-on contact hours to be effective. Given the similarities in training practices and schedules in the study area, plentiful opportunities exist for the development of collaborative, shared training programs.

Fire Prevention, Public Education and Investigation Programs

An aggressive risk management program, through active fire and life safety education and prevention services, is a fire department’s best opportunity to minimize the losses and human trauma associated with fires and other community risks.

The National Fire Protection Association recommends a multifaceted, coordinated risk reduction process at the community level to address local risks. This requires engaging all segments of the community, identifying the highest priority risks, and then developing and implementing strategies designed to mitigate the risks.

A fire department should actively promote fire resistive construction, built-in warning and fire suppression systems, and an educated public trained to minimize their exposure to fire and health issues and to respond effectively when faced with an emergency.

Fire Code Administration and Enforcement

The following tables detail the fire prevention and public education efforts that are put forth by the agencies that are subject to this analysis.

Figure 66: Code Enforcement and Inspection Programs

	Ramsey/ Nowthen FD	Oak Grove FD	St. Francis FD	Bethel FD
Fire codes adopted	Minnesota State Code	Minnesota State Code	Minnesota State Code	None adopted
Code used year/version	2007 (most current)	2007 (most current)	2007 (most current)	N/A
Local ordinances adopted, amendments	No	No	No	None
Sprinkler ordinance in place	No	No	No	None
New Construction Inspections and Involvement				
Consulted in proposed new construction	Yes	City shares a building official with East Bethel. Informs Fire Department	Yes	Referred to Anoka County
Perform fire and life safety plan review	Yes	Informal plan review by fire department. No inspections conducted	Yes	No

Ramsey, Nowthen, St. Francis, Oak Grove, and Bethel, Minnesota
Feasibility Study for Shared or Cooperative Fire and Emergency Services

	Ramsey/ Nowthen FD	Oak Grove FD	St. Francis FD	Bethel FD
Sign-off on new construction	Yes	No	Yes	No
Charges for inspections or reviews	Incorporated into building permit fees	No	Incorporated into building permit fees	N/A
Existing occupancy inspection program	Regular inspection program in Ramsey, detailed below. Inspections completed in Nowthen only on a request basis.	Previous inspection program discontinued. FD personnel are currently being trained to complete inspections to revive program.	Fire Chief and a Paid On Call Fire Inspector completes existing occupancy inspections in St. Francis on request	No existing occupancy inspections but chief is currently undergoing certification to do so
Special risk inspections	Day care inspections completed annually per state requirement	Planned	Chief or Fire Inspector completes day care inspections annually per state requirement	No
Storage tank inspections	Yes	No	No. Building Official completes	No
Key-box entry program in place	Knox Box system used	Knox Box system	Knox Box system	None
Self-inspection program in place	No	No	No	No
Frequency of inspections	Categorized by occupancy type. Higher risk scheduled for annual inspection. Actual frequency no more than two years.	Target will be to inspect all commercial occupancies bi-annually	No regular inspection schedule except for annual day care and school inspections, completed by the State Fire Marshal	N/A
Citation process in place	Yes, if needed, per fire code	None	Yes, if needed, per fire code	N/A
• Court cited to	Municipal court	N/A	Municipal court	N/A
Number of personnel devoted to program	Fire Marshal only. POC personnel assist during Fire Prevention Week.	2 Paid on Call Fire Inspectors	Fire Chief, by contract, and one Paid On Call Fire Inspector	Fire Chief only
Fees for specialty inspections	No, except for day care inspections which are reimbursed by the state	No	No, except for day care inspections which are reimbursed by the state	N/A

All of the communities have adopted the current Minnesota State Fire Code, with the exception of Bethel. Adoption in Bethel is recommended.

The code enforcement and fire inspection program in Ramsey is well developed, having completed 127 new construction inspections and just under 100 existing occupancy inspections in the 2012 reporting year. The program targets an inspection regularity of no more than two years on commercial

occupancies. Ramsey also conducts inspection work for Nowthen, however activity there is limited to day care inspections and existing occupancy reviews only on and as-requested basis. Increased code enforcement activity and more structured prevention interaction with the Nowthen Building Official is recommended.

In St. Francis, the Fire Chief serves as Fire Marshal and completes inspections on a request basis or in response to complaints or identified issues. No regularly scheduled existing occupancy inspections are completed with the exception of annual day care reviews, which are conducted regularly. New construction plan reviews are completed by the Fire Chief, as needed.

The Oak Grove Fire Prevention program was largely discontinued when the previous Fire Inspector, a Paid on Call position, retired. The Chief is making efforts to revive the program and is currently providing training to inspectors to that end. The initiative is appropriate and should be continued.

In Bethel, the plan review process is deferred to Anoka County with no involvement by the fire department. Existing occupancy inspections have not been completed in the past; however, the Fire Chief is undertaking an initiative to obtain training and conduct future inspections.

All of the agencies are making commendable efforts to effectively address fire code enforcement and inspection needs. Doing so, however, is time consuming and demanding. In addition, maintaining appropriate training and certification levels is challenging. Opportunities to share code enforcement programs, personnel, and practices warrant future consideration.

Public Education

One of the most effective ways to prevent the occurrence of fires is by effectively educating the public so that they can minimize their exposure to fire and health issues and so that they can respond effectively when faced with an emergency.

Figure 67: Fire Safety and Public Education

	Ramsey/ Nowthen FD	Oak Grove FD	St. Francis FD	Bethel FD
Public education officer	Fire Marshal additional duty	POC Public Education Officer	Paid on Call Fire Inspector	Fire Chief
Public education in the following areas:	Annual open house associated with Fire Prevention Week. Annual "Safety Camp" with Police	Annual Fire Prevention Week outreach to schools. Also pancake breakfast and related community events.	Very active public education program reaching out to all four schools in the city	Annual community event, AED, CPR, prevention outreach. Quarterly newsletter with Fire Prevention week information
Calling 9-1-1	Yes	Yes	Yes	Yes
EDITH (exit drills in the home)	Yes	Yes. Department has an escape house	Yes	Yes
smoke alarm program	At open house	No	No	Smoke alarm give-away program
general fire safety (heating, chimney, electrical, kitchen, etc.)	Yes	Yes	Yes	Yes
injury prevention (falls, burns, bike helmets, drowning, etc.)	Yes	No	No	No
fire extinguisher use	Yes	No	On request	No
fire brigade training	On request	No	On request	No
elderly care and safety	Outreach program delivered on-request	No	No	No
baby-sitting classes offered	No	No	No	No
CPR class, blood pressure checks	CPR classes offered	No	Active CPR class program provided by Paid On Call personnel	AED, CPR awareness demos at annual community event
Publications available to public	Brochures at offices. Also articles in city newsletter.	Multiple publications available	Multiple publications available	Yes
Juvenile fire setter program offered	County team is available and used	County team is available and used	County team is available and used	County team is available and used
Wildland interface education offered	No structured program	No structured program	No structured program	No structured program

Public education activities are one of the most important elements of an effective approach to community fire prevention. It is commonly stated that there are three primary causes of fires: Men, women and children. Informing and educating a community's citizenry will result in fewer fires and fewer losses of lives and property.

All of the study agencies make an effort to provide adequate public education outreach. St. Francis, in particular, has a well-developed program in its schools. Given the similarities observed in programs, the commonly shared need for public outreach, and the staffing and time commitment challenges associated with public education, future collaboration in the form of a public education coalition in the area would be beneficial.

Fire Investigation

A sometimes under-appreciated component of fire prevention programs overall is that of assuring that the cause of a fire that has occurred is effectively identified so that public education and code enforcement efforts can be targeted toward identified causes. Fire cause determination is not limited to intentionally cause incidents, but includes all forms of accidental fires, as well. Following is a review of fire investigation efforts in the study agencies.

Figure 68: Fire Investigation

	Ramsey/ Nowthen FD	Oak Grove FD	St. Francis FD	Bethel FD
Arson investigation and prosecution	Fire Marshal	Fire Investigation Team and State Fire Marshal	Fire Investigation Team and State Fire Marshal	State Fire Marshal
Arson investigation training provided	Personnel trained in basic cause and origin and scene preservation skills	Personnel trained in basic cause and origin and scene preservation skills	Personnel trained in basic cause and origin and scene preservation skills	State Fire Marshal
Person responsible for investigations	Fire Marshal	Fire Chief and FIT Team	Fire Marshal	Fire Chief
Local FIT membership (Fire Investigation Team)	County-wide FIT team is in place and used regularly	County-wide FIT team is in place and used regularly	County-wide FIT team is used regularly..	County-wide FIT team is in place and used regularly
Process for handling juvenile suspects	Juvenile court	Juvenile court	Juvenile court	Juvenile court
Scene control practices in place	Yes	Yes	Yes	Yes
Adequate and appropriate equipment issued/supplied	Adequate	Adequate through FIT Team	Adequate	Adequate
Evidence collection process in place	Yes	Yes	Yes	Yes
Reports and records of all incidents made	Yes	Yes	Yes	Yes
Statistical Collection and Analysis				
Records computerized	Yes	Yes	Yes	Hard copy only
software used	Firehouse Software	Separate hard copy records	Image Trend	N/A
Response Information collected	All NFIRS data	All NFIRS data	All NFIRS data	All NFIRS info

The study area is fortunate to have access to a county-wide Fire Investigation Team (FIT), which is an invaluable asset, particularly to smaller agencies that do not have the opportunity to gain experience from frequent fire incidents. The department also rely heavily on the Minnesota State Fire Marshal's Office to assist them with the determination if a fire's cause and origin, as is appropriate.

Section II – Opportunities for Cooperative Efforts

Having completed the evaluation of current conditions process above, ESCI is now armed with the information necessary to effectively evaluate the opportunities that exist in the region for shared service delivery opportunities between the participating agencies. There are many ways that fire departments can work together, ranging from very fundamental sharing of resources and programs, up to and including legal assimilation of multiple agencies into one in the form of a merger or consolidation, where feasible.

The balance of this report examines the multiple options that are available to the study agencies and provides insight and guidance where appropriate.

General Partnering Strategies

Three basic strategies are generally available when considering cooperative efforts and shared service delivery, beginning with a do-nothing approach (status quo) and ending with complete unification of two or more organizations into what is, essentially, a new emergency service provider. A description of the three primary methodologies is found below.

Functional Consolidation

Public entities usually have broad authority under law to enter intergovernmental agreements (IGAs) for the purpose of cost and service efficiency. Minnesota is no different in this regard. The laws of the State of Minnesota address the issue, allowing intergovernmental contracts for any lawfully authorized governmental function.¹⁰

Examples of this type of cooperative effort may include any function within the study departments that allows them to deliver services, such as training, fire prevention, equipment purchasing, logistics, etc. Through functional consolidations, each agency benefits from the resources of the whole while maintaining independence as separate organizations. Many times, functional consolidations serve as a prelude to a further future collaborative initiatives including legal unification and merger.

Operational Consolidation

This strategy joins two or more entities, in their entirety, through the execution of an intergovernmental agreement (IGA). The resulting organization features a single organizational structure and chain of

¹⁰ Minnesota Statutes, section 471.59. Joint Exercise of Powers Act.

command. Depending on the form of the agreement(s) establishing the organization, members may remain with the original agency, transfer to one of the other agencies, or transfer to an entirely new organization.

Unlike functional consolidation, an operational consolidation brings the actual operations of the separate organizations together into a single department that provides services to one or more communities but does not create a new legal entity. The organizational structure, command, and operational model will depend upon the structure and format of the agreements established between the agencies. Like functional consolidations, operational consolidations are sometimes considered an intermediate step leading to a full merger. The main advantage of the strategy offers governing bodies the ability to negotiate and monitor desirable outcomes for the management of a particular service. This gives a higher level of comfort in going forward with the decision to unify fire service across a geographical region.

In Minnesota there are several types of IGAs, including Joint Exercise of Powers, Intergovernmental Service Agreements, and Intergovernmental Service Transfers. Within the Joint Exercise of Powers Act there are two primary options for sharing services: Shared Powers Agreements and Service Contracts. In Shared Powers Agreements, governments jointly share responsibility for providing a service such as fire protection. Service Contracts, however, allow one city to 'contract' with another government for services. The Intergovernmental Service Agreement is the most common form of cooperative arrangement in Minnesota. It is an agreement, formal or informal, written or oral, between two or more governments about the delivery of a service or services. These agreements may take many forms. Intergovernmental Service Transfers are a permanent transfer of total responsibility for the provision of a service from one government unit to another.

Legal Unification

Under certain circumstances in law, fire departments can join into a single entity. This formal approach unites not only the programs but also the organizations themselves. State laws addressing political subdivisions usually detail a process for legal unification.

Typically, state laws draw a distinction between words like *annexation*, *merger*, and *consolidation* when speaking of legal unification. Organizationally, however, the outcome of any such legal process results in one unified organization. The primary differences between the legal strategies relate to governance and taxation issues. In many states, some process of *inclusion* exists that essentially involves the annexation

of one entity into another, preserving the governing body and taxing authority of the surviving agency. A legal merger, on the other hand, usually entails the complete dissolution of two or more agencies with the concurrent formation of a single new entity (and governing body) in place of the former.

Statutory allowances to accommodate various forms of merger and consolidation are limited in Minnesota Law and, to achieve some forms of unification, legislative action is necessary to provide the authority to do so. A useful example of this type of unification is the Cloquet Fire District where the City of Cloquet, Perch Lake Township, and the City of Scanlon agreed to join forces as a single, unified organization. To do so, however, the communities had to petition the legislature for a special law that would create the state's first independent fire district with taxing authority. They were successful in doing so.

Because ESCI often finds that study agencies are reluctant to relinquish control of their respective fire departments to a full consolidation, the intent of this project is evaluate potential opportunities and to provide information to policymakers with which they can make informed and successful decisions regarding the future of fire protection and emergency services within their respective communities.

Governance Options and Strategies

While the emergency operations component of a fire department is an important element of the overall emergency services system, no organization can properly function without some form of governance and authority to act. This report section provides policymakers with information regarding several potential options for governance of the fire protection system serving the study area, including the Cities Ramsey, Nowthen, St. Francis, Oak Grove and Bethel..

Status Quo

Any discussion of potential feasible governance options would be remiss if it did not consider continuation of the current model as it is today. In this study area, the current model of contracting of the City of Ramsey Fire Department services to both the Cities of Nowthen and St. Francis are a viable option for future governance.

The current model includes the City of Nowthen as a contracting agency for service from the City of Ramsey, an agreement under which the Ramsey and Nowthen Fire Departments operate as one, under the administration and management of the Ramsey Fire Chief. In addition, the City of Ramsey provides contractual fire protection services to the City of St. Francis. In St. Francis, however, the city provides its own direct fire protection and contracts only for the services of the Ramsey Fire Chief to provide oversight and administrative support services.

In the Cities of Oak Grove and Bethel, services are provided as stand-alone, independent fire departments. While a degree of interaction and collaboration with Ramsey, Nowthen, and St. Francis takes place, the fire departments remain as separate entities.

The current relationships have evolved to where they are today and the result has been positive. The current model is a feasible option moving forward and should not be discounted. Service delivery and performance falls within acceptable limits and major problems are not found in the study area overall. However, the question is whether it can be done even better – the subject of the following analysis.

Fire District through a Joint Powers Agreement

The term ‘Fire District’ in the State of Minnesota can take on more than one meaning. For the purposes of this discussion, the term Joint Powers Agreement (JPA) is more appropriate in terms of governance. A Fire District *per se*, will be discussed in the next section.

Joint Powers Agreements (JPAs) are not uncommon in Minnesota and can serve as a valuable tool. State statutes authorize two or more municipal corporations to collaborate in exercising any power common to the municipalities and to provide a joint board representing the participating entities and overseeing administrative and management matters.

In the case of fire protection for the Ramsey region, the existing contractual arrangements between Ramsey, Nowthen, and St. Francis could be expanded and reconfigured as JPAs to include the Cities of Oak Grove and Bethel, or a new entity could be created to provide oversight and governance to an entity that services the entire region.

The advantage of a JPA in this instance is that each entity maintains autonomy regarding taxation and each retains the ability to withdraw from the agreement in the future. As is currently the practice in the study area, each participating entity would levy a tax in its own way and then contribute to the operations of the JPA as outlined in the enabling documents. No legislative approval is required for this type of agreement and the intergovernmental agreements created would define how the JPA was governed as well as how each participant is represented.

While the fact that each entity maintains its autonomy can be considered advantageous, it may also be viewed as a drawback. Remaining as separate entities under a JPA, so that any participant can withdraw, lacks a long-term dedicated commitment to the JPA, making future planning and visioning more challenging.

A prime example of this type of collaboration is the South Metro Fire Department (SMFD). SMFD (created in 2005) serves South St. Paul and West St. Paul and is the result of a full consolidation of both cities' fire departments. Another example is the Isanti Fire District that includes the City of Isanti and the townships of Athens, Bradford, Isanti, Oxford, Spender Brook, and Standford. In the region, the townships surrounding the City of Isanti felt as though their level of input and control over fire protection was limited by the existing agreement. In order to more equitably distribute control, the JPA was signed by all parties passing control over to a board of representatives rather than the City of Isanti.

In most situations where two or more municipalities or quasi-governmental organizations enter into a shared services agreement through a JPA, the governing board consists of representatives from the participating agencies. Under the assumption that a single representative from each participating jurisdiction serves on the board of a newly created JPA, in this study area, the board would consist of

five members, each with an equal vote. However, it should be recognized that the City of Ramsey represents the highest percentage of assessed value (therefore risk) as well as service demand and population (another factor of risk). As a result, representation of Ramsey, and perhaps others, may be modified to achieve an appropriate balance.

Many governing bodies find it difficult to reach consensus on a majority of issues when the membership of the board surpasses five to seven members. This is not to say that larger boards cannot be productive but rather to urge that smaller boards are more efficient at dealing with public safety issues. In the case of the Ramsey region, ESCI recommends a board of no more than seven individuals with representation based on a similar weighting as will be discussed in the following section of this report regarding funding.

Prior to discussing alternative assessments, fees, or other increases to the current revenue stream, the governing boards of the participating agencies and municipalities should clearly define the level of community emergency service in measurable terms. For example, the boards should specify the service (fire protection), the quantity (a fire pumper and four firefighters), the quality (within six minutes of dispatch), and the accuracy (80 percent of the time). Once service is defined in specific and measurable terms, the tasks of determining cost and the consideration of funding alternatives become more focused.

Potential funding alternatives can be grouped into two general categories: untapped revenues and redirected funds. Untapped revenue is represented by existing funding alternatives that are not fully used, like a tax increase or the implementation of a new tax, and by the identification of fees that do not fully recoup service costs. Redirected funds are existing revenue identified as not contributing toward the essential goals of the organization and, therefore, may be more efficiently allocated to other programs or functions.

There are essentially three methods that can be used to redirect public funding: 1) proving that money could be spent more effectively, 2) showing that a population or area is not receiving its fair share of service, and 3) changing a policy so that a program can access a funding stream that currently exists.¹¹ In order to redirect funding, leadership researches what funding is there, who controls the funding, what the policies are, and whether or not allocation patterns can be changed.

¹¹ *Sustainable Funding for Program Strategies*, Lessons Learned from an Ambitious Community Change Effort, June 2005, Urban Health Initiative, Seattle, WA.

For this study area, this would involve altering the methodology for calculating the cost of serving the region. A formula for apportioning service cost may factor in assessed valuation, population (residents and employees), service demand, level of service, and area size. One option for leveling cost fluctuations is to employ a formula using multiple factors (population and assessed valuation, for instance).

What follows is an alphabetical listing of system variables that can be used (singly or in combination) to allocate cost between allied fire departments. Each option is summarized by the concept, its advantages and disadvantages, and other factors that should be considered. Regardless of the option(s) chosen to share the cost of fire protection, the resulting intergovernmental agreement needs to address the issues of full cost versus marginal cost and should be clear about the inclusion of administrative or overhead cost. In addition, service contracts often must reconcile the exchange of in-kind services between the participating agencies, if any.

Area

Concept:

The cost of emergency service can be apportioned based on the geographic area served relative to the whole. For instance, the jurisdictional boundaries of the region represent approximately 124.57 square miles. Allocation based on area would apportion about 23.8 percent of cost to the City of Ramsey (29.7 square miles), 28.2 percent to the City of Nowthen (35.1 square miles), 28.2 percent to the City of Oak Grove (35.1 square miles), 19 percent to the City of St. Francis (23.7 square miles), and 0.8 percent to the City of Bethel (0.97 square miles) Apportionment founded on service area alone may work best in areas that are geographically and developmentally similar.

Pro:

Service area is easily calculable from a variety of sources.

Con:

Service area does not necessarily equate to greater risk or to greater workload.

Consider:

Service area may be combined with other variables (assessed value and number of emergencies) to express a compound variable (such as assessed value per square mile and emergencies per square mile).

Taxable Capacity

Concept:

The tax capacity of municipalities is established by the local tax assessor under laws of the state. Usually, higher-valued structures and complexes carry a greater risk to the community from loss by fire; consequently, assessed value also tends to approximate the property at risk within a municipality. Fire departments are charged with being sufficiently prepared to prevent property loss by fire. Therefore, the cost of contracted fire protection may be apportioned relative to the assessed value of the allied jurisdictions. Typically, tax capacity is used to apportion cost of shared service by applying the percentage of each partner's tax capacity to the whole.

Calculation of applying tax capacity to the study are results in the following: The City of Ramsey would pay about 54.3 percent, the City of Nowthen would pay 7.8 percent, the City of St. Francis would pay 20.3 percent, the City of Oak Grove, 15.9 percent and the city of Bethel, 0.8 percent.

Pro:

Tax capacity is updated regularly helping to assure that adjustments for changes relative to new construction, annexation, and inflation are included. Because a third party (the assessor) establishes tax capacity in accordance with state law, it is generally viewed as an impartial and fair measurement for cost apportionment. Fire protection is typically considered a *property-related service* and, thus, apportionment tied directly to property value has merit.

Con:

Tax capacity may not reflect the risk associated with certain exempt property, such as schools, hospitals, universities, government facilities, churches, and other institutions. Tax capacity may also not always represent the life risk of certain properties, such as nursing homes or places of assembly, which might dictate more significant use of resources. In addition, some large facilities may seek economic development incentives through tax capacity exemptions or reductions. Adjustments may need to be made to tax capacity if such large tracts of exempt property in one jurisdiction cause an imbalance in the calculation. Finally, tax capacity typically includes the value of land, which is not usually at risk of loss by fire. Depending on the local circumstance, however, this may not be a significant factor if the relative proportion of land value to structure value is reasonably uniform over the whole of the territory.

Consider:

Some states discount tax capacity depending on the class of property (commercial or residential), which may skew the overall proportion of those properties compared to risk. As an additional consideration, county assessors usually establish the tax capacity in accordance with the property tax cycle, which can lag somewhat behind the budget cycle of local agencies and the time when service contracts are reviewed or negotiated.

Deployment

Concept:

Payment for service based on the cost of meeting specific deployment goals. Deployment goals may be tied to the physical location of stations, equipment, and personnel (strategic deployment) or by stating the desired outcome of deployment (standards of cover). For example, a strategic goal could specify the location of two stations, two engines, and ten on-duty firefighters. A standard of cover might state the desired outcome of the same deployed resources as — two engine companies and ten firefighters on the scene of all structure fire emergencies within eight minutes 80 percent of the time. While both strategic and outcome goals can be used effectively to assist in allocating cost, ESCI views outcome goals to be more dynamically linked to the quality of service and therefore preferable over strategic goals. This alternative is highly variable due to the independent desires of each community in regard to outcome goals.

In order to present an example of how this type of funding alternative may be applied, ESCI developed a weighted scoring system that uses critical task analysis. This type of scoring system for each municipality allows the ranking of each area based on the assigned risk as well as the apparatus, manpower, and Needed Fire Flow. Using this methodology, the City of Ramsey would pay about 43.0 percent, the City of Oak Grove would pay 29.0 percent, and the remaining 28.0 percent would be distributed equally between St. Francis, Nowthen and Bethel.

Pro:

Deployment is intuitively linked to the level of service. The outcome of deployment based on a standard of cover can be monitored continuously to assure compliance. Such deployment can be adjusted if standards are not met. This assures the continuous quality of emergency response throughout the life of a service contract.

Con:

Strategic deployment may not equate to better service because such goals are prone to manipulation wherein resources may be sited more for political reasons and less for quality of service reasons. Outcome goals require the automatic time capture of dispatch and response activities to assure accuracy. Record keeping needs to be meticulous to assure the accurate interpretation of emergency response outcomes.

Consider:

Contracts for deployment-based fire protection should address the inclusion of administrative or overhead cost, as well as capital asset cost, depreciation, rent, and liability insurance.

Service Demand

Concept:

Service demand may be used as an expression of the workload of a fire department or geographical area. Cost allocation based on emergencies would consider the total emergency response of the service area and apportion system cost relative to the percentage of emergencies occurring in the jurisdictions. Under a system apportioned by service demand, the City of Ramsey and the City of Nowthen (combined)¹² would pay 39.3 percent, the City of Oak Grove would pay 16.9 percent, the City of St. Francis would pay 42.1 percent, and the City of Bethel would pay 1.7 percent.

Pro:

Easily expressed and understood. Changes in the workload over the long term tend to mirror the amount of human activity (such as commerce, transportation, and recreation) in the corresponding area.

Con:

Emergency response fluctuates from year to year depending on environmental and other factors not directly related to risk, which can cause dependent allocation to fluctuate as well. Further, the number of alarms may not be representative of actual workload; for example, one large emergency event requiring many emergency workers and lasting many hours or days versus another response lasting only minutes and resulting in no actual work. Finally, emergency response is open to manipulation (intentional and/or unintentional) by selectively downgrading minor responses, by

¹² Response data from Ramsey and Nowthen are combined in the reporting information provided to ESCI, resulting in consolidated incident count.

responding off the air, or by the use of mutual aid. Unintentional skewing of response is most often found in volunteer fire systems, where dispatch and radio procedures may be imprecisely followed. Further, service demand does not follow a predetermined ratio to land area. As such, the service demand per square mile ratios may produce large variations.

Consider:

Using a rolling average of alarms over several years can help to suppress the normal tendency for the year-to-year fluctuation of emergencies. Combining the number of emergencies with the number of emergency units and/or personnel required may help to align alarms with actual workload more closely; however, doing so adds to the complexity of documentation. In a similar manner (and if accurate documentation is maintained), the agencies could consider using the total time required on emergencies as an aid to establish the comparative workload represented by each jurisdictional area.

Fixed Rate

Concept:

The use of fixed fees or rates (such as a percentage) to calculate allocation of shared cost is more common between municipalities. Occasionally, fixed-rate contracts involve the exchange of in-kind services.

Pro:

The concept is simple and straightforward. A menu of service options and the fees corresponding to those alternatives can be developed by the contractor agency. The contracting agencies can tailor a desired level of service based on risk and community expectation by choosing from the various menu items.

Con:

Partnering communities may change (i.e., population, jobs, commerce, structures, and risk) at divergent rates causing disconnection between the rationale used to establish the fee and the benefit received. A fixed-rate contract may be difficult to coherently link to the services provided and/or received, which can lead to a lack of support by officials and the community.

Consider:

Partnering agencies need to assure that provision for rate adjustment is included in the agreement, including inflation. The agreement should address the issue of full cost versus marginal cost. The inclusion or non-inclusion of administrative and/or overhead cost also requires statement, as does the reconciliation of in-kind service exchange. The ownership and/or depreciation of capital assets should be addressed, as should rent, utilities, and liability insurance. In the case of a fixed fee, the agreement should establish how the participation of other public agencies in the partnership would affect cost.

Population

Concept:

Payment for service can be based on the proportion of residential population to a given service area. The most recently available census population of the City of Ramsey is listed as 23,668; the City of Nowthen at 4,443; St. Francis, 7,218; Oak Grove, 8,031; and Bethel, 466. The population of the entire covered service area is estimated at about 43,826. Apportionment based on the estimated population of the service area would allocate about 54 percent of cost to the City of Ramsey; 10.1 percent to the City of Nowthen, 16.5 percent to the City of St. Francis, 18.3 percent to Oak Grove and 1.1 percent to the City of Bethel.

Pro:

Residential population is frequently used by governmental agencies to measure and evaluate programs. The U.S. Bureau of Census maintains an easily accessible database of the population and demographics of cities, counties, and states. Estimates of population are updated regularly. Laypersons intuitively equate residential population to the workload of fire departments.

Con:

The accurate population of partially covered areas is often difficult to establish. Census tract boundaries and response area boundaries infrequently match, forcing extrapolated estimates, which can fail to take into account pockets of concentrated population inside or outside of the response areas. Further, residential population does not include the daily and seasonal movement of a transient population caused by commerce, industry, transport, and recreation. Depending on the local situation, the transients coming in (or going out) of an area can be very significant, which can tend to skew community risk. Residential population does not statistically link with emergency

workload; rather, human activities tend to be the linchpin that connects people to requests for emergency assistance.

For example, if residential population actually determined emergency workload, emergencies would peak when population was highest within a geographic area. However, in many communities where the residential population is highest from about midnight to about 6:00 a.m. (bedroom communities), that time is exactly when the demand for emergency response is lowest. It turns out that emergency demand is highest when people are involved in the activities of daily life — traveling, working, shopping, and recreating. Often, the persons involved in such activities do not reside in the same area.

Consider:

The residential population of partially covered areas can sometimes be estimated by using the GIS¹³ mapping capability now maintained by most counties. By counting the residential households within the area in question, then applying demographic estimates of persons per household, it may be possible to reach a relatively accurate estimate of population within the area in question. Alternately, residential population can be estimated by using information obtainable from some public utility districts by tallying residential electrical meters within a geographic area and then multiplying by the persons per household.

Some areas experience a daily or seasonal influx of people who are not counted as residential population. This transient population can be estimated by referring to traffic counts, jobs data, hotel/motel occupancy rates, and, in some cases, state or national park administrators. Residential population plus transient population is referred to as *functional population*. Where functional population is significantly different from residential population, service agreements based on population should be adjusted to account for it.

Multiple-Variable Allocation

Frequently, even though everyone may agree on the benefit of allied fire protection, officials find it difficult to reach an agreement with regard to costs and the allocation of those costs. The differences between community demographics and/or development, along with changes that occur within the system over the long term, can cause the perception of winners and losers. This can be especially

¹³ Graphic Information Systems

prevalent when a single variable is used to apportion cost. A service contract based on more than one allocation determinate may help solve these problems.

By apportioning costs over multiple variables, members of an alliance may be able to reach a long-term agreement that fits the diversity of the partnering agencies. Other partnerships in other geographical areas may require a different solution involving different combinations of variables.

Allocation Summary

The information provided above serves as a detail of each funding alternative presented. Given the lengthy discussion provided with each alternative, ESCI has compiled the information into a summary table illustrating how each funding alternative would be distributed among the member municipalities. In addition to the individual funding alternatives, several multiple-variable scenarios are also provided as an example of how this type of methodology can be applied and modified.

Figure 69: Summary of Alternative Funding Models

Jurisdiction	Area	Taxable Market Value	Service Demand	Population	Multiple Variable #1	Multiple Variable #2	Multiple Variable #3
City of Bethel	0.8%	1.7%	1.7%	1.1%	1.5%	1.6%	1.4%
City of Nowthen	28.2%	7.8%	N/A	10.1%	8.2%	6.1%	7.3%
City of Oak Grove	28.2%	15.9%	16.9%	18.3%	17.7%	17.2%	18.5%
City of Ramsey	23.8%	54.3%	39.3%	54.0%	47.5%	46.7%	44.4%
City of St. Francis	19.0%	20.3%	42.1%	16.5%	25.1%	28.4%	28.5%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Figure 70: Multiple-Variable Funding Scenarios

Multiple Variable Weights	
Multiple Variable #1	
Area	10%
Assessed Value	50%
Service Demand	25%
Population	15%
	100%
Multiple Variable #2	
Area	5%
Assessed Value	40%
Service Demand	40%
Population	15%
	100%
Multiple Variable #3	
Area	10%
Assessed Value	5%
Service Demand	45%
Population	40%
	100%

Fire District with Taxing Authority

A fire district with taxing authority within the State of Minnesota is an uncommon entity. In fact, only one currently exists: Cloquet Area Fire District. This district was created by special law in 2009 after the Cities of Cloquet and Perch Lake petitioned the legislature. Today, the district has expanded to include the City of Scanlon as well as providing service to the Fond du Lac Band of Lake Superior Chippewa through a professional services contract.

What makes a district vastly different from a JPA is that the district is an independent quasi-governmental entity with taxing authority granted by the state. In other words, it would stand as a separate unit of local government. The primary advantage to this type of governance model is that the cities involved, would no longer be responsible for fire protection. Rather, the newly created district would have that responsibility as outlined in the enabling legislation. In addition, the covered municipalities would no longer be responsible for *funding* fire protection in their communities. This would lie with the taxing authority of the district.

Unlike the formation of a JPA, the State of Minnesota gives little guidance to how a board of an independent taxing fire district should be determined. Given the lack of guidance, local officials are left with the responsibility to determine how the board of a taxing fire district will be determined prior to requesting special legislation to create that entity.

In the case of Cloquet Area Fire District, the initial board members were selected based on representation from the participating agencies; the City of Cloquet (three) and the Perch Lake Township (two) as well as one at-large member. Since the district has expanded to include the City of Scanlon, one additional representative has been appointed to the board.

Although the Cloquet Area Fire District has chosen to maintain representation from member communities in a more controlled distribution, the creation of a taxing district allows that entity to hold elections at large as part of the general community election. The downside to this method of staffing governing positions is that some communities, particularly those with less dense populations, will not be afforded equal representation given the drastic differences in population levels among the member organizations.

Still, districts with taxing authority can blend the aforementioned methods of governance and have a constant representation from predetermined participants as well as members selected during at-large

elections. Unlike JPA's taxing districts do not have the general option of how to produce revenue. Funding for the fire district is generally realized for ad valorem taxes levied on commercial and residential properties located within the district. The same issues with tax-exempt properties would remain in this situation where risk may be higher but little revenue is realized.

Consolidation under the Single City and Contracting Services

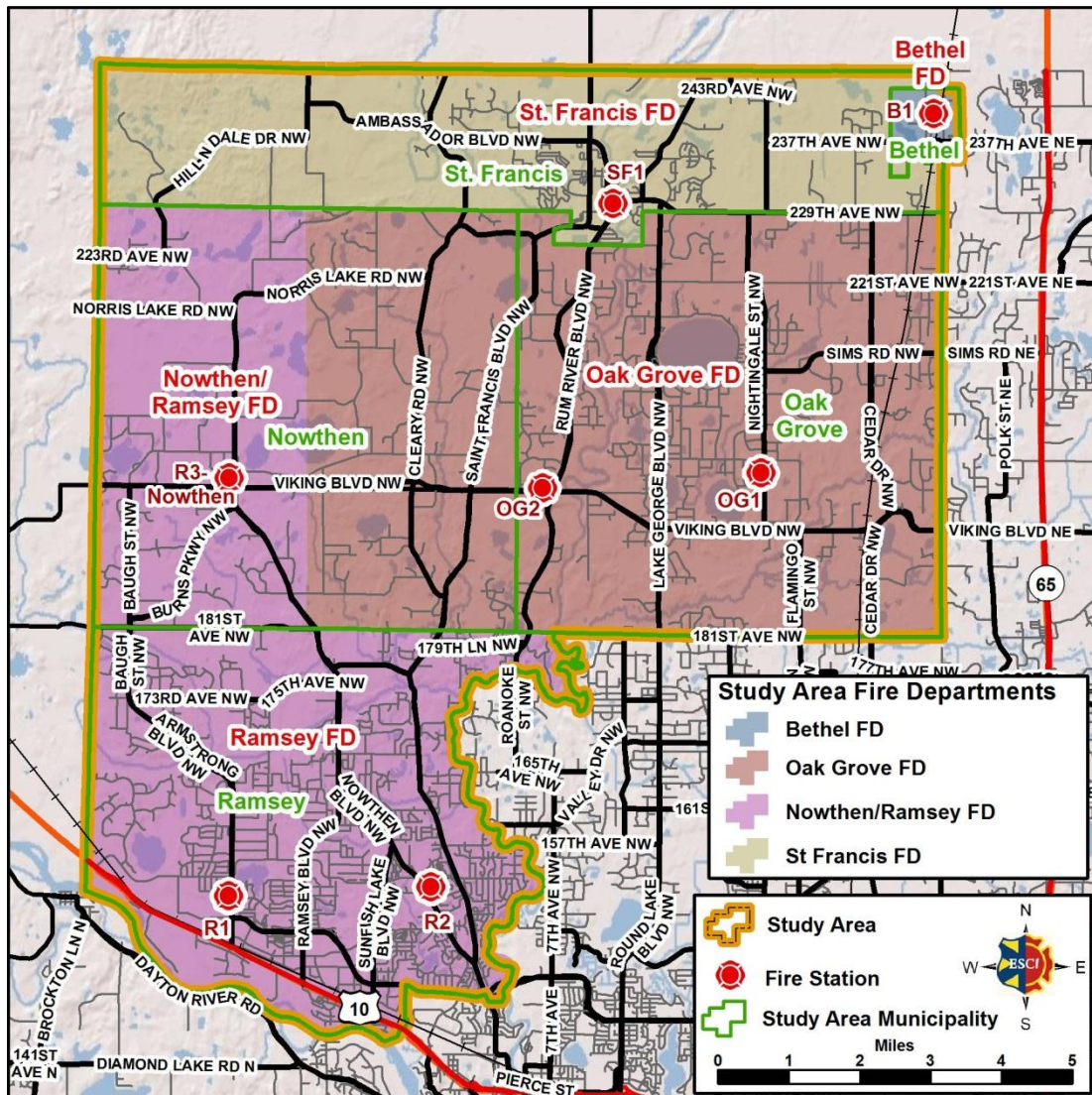
Consolidation of existing fire resources under a single city is the final option evaluated here regarding the future delivery of emergency services throughout the region. In essence, this type of consolidation would eliminate one or more of the existing municipal departments and another would provide fire protection to that city through contract. While this would reduce the layers of governance by one, a contract would be required with each participant. For example, If St. Francis were to eliminate its municipal department and contract with Ramsey for fire protection, a single contract between the two cities would be necessary and Ramsey would assume all fire protection and emergency response duties within the City of St. Francis. The same would be true if St. Francis and Oak Grove were to combine, or St. Francis and Bethel, etc.

This type of arrangement would effectively place all governance, control, and funding in the hands of the city providing fire protection. The surrounding municipalities would contract with that city but would have the option of contracting with any other department in the future if the need arose.

Future Facility and Deployment Considerations

Aside from the potential governance options for the study area, ESCI evaluated the current locations of fire stations in the study area and compared them against service delivery and response performance data. The figure below illustrates the existing station locations.

Figure 71: Fire Station Locations



Based on review of existing station locations, combined with the response performance data that is detailed in the Service Delivery and Performance section of this report, ESCI evaluated the locations of fire stations, the equipment housed therein and the staffing that is available to respond from the stations.

ESCI's analysis finds that the existing fire station locations provide an excellent level of coverage in the study area. In terms of both response times and travel distances, the facilities are appropriately sited and ESCI does not recommend the elimination, addition, or relocation of current fire stations.

Options for Shared Services

In identifying potential cooperative and shared services opportunities, the project team considered the key issues now challenging each agency and community. 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.

The following paragraphs provide a summary of potential shared services strategies available within the study region. Although every attempt has been made to identify all the areas of potential, intimate knowledge of the current system may allow for other areas to be explored outside the parameters of this report.

ESCI usually makes no distinction between unification, consolidation, or merger, tending to use each term interchangeably. The reader should note that when referring to the union of programs or agencies, the operative words are *functional* and *legal*.

Governing bodies should pursue the process of joining two or more fire departments only after concluding that unification is cost-effective and is likely to provide better and/or more efficient service to the public. Each agency's legal counsel should research the particular statutory steps necessary to implement a particular unification strategy. The different processes are not commonly difficult to accomplish, but because the transfer of public assets and liabilities may be involved, the procedure itself can be relatively precise. It is important, therefore, that the agencies have the benefit of competent legal advice throughout the process.

The decision to choose one unification strategy over another is a matter of local policy. Most often, officials choose a preferred course for analytical reasons; however, in certain cases politics or law may rule. Most states actively support cooperation between governments as a matter of policy in the interest of furthering the economy and efficiencies of local government. Generally, functional and operational strategies are always available as options, whereas the legal unification of fire departments is dependent on circumstance.

Baseline Budget Determination

ESCI projects the financial result of any proposed consolidation. The forecast does not attempt to predict the finances of the departments because changes in law and politics are certain to make such

forecasting inaccurate. Rather, ESCI’s analysis shows how trends in the cost of labor and other operational expenditures act on the outcome of a consolidation based on 2012 policy and law. The figure below details the combined baseline budget of the departments using 2012 expenditures as the base from which to build future budget models.

Figure 72: Combined Budget by Category, Fiscal Year 2012

	Personnel	Supplies and Services	Capital	Total
Bethel	\$13,500	\$14,500	\$0	\$28,000
Oak Grove	\$156,275	\$156,270	\$0	\$312,545
Ramsey/Nowthen	\$511,556	\$225,100	\$136,000	\$872,656
St. Francis	\$143,970	\$109,950	\$33,122	\$287,042
Totals	\$825,301	\$505,820	\$169,122	\$1,500,243

Total costs for personnel services with benefits calculated to \$825,301 and account for 55.0 percent of total expenditures in 2012. Materials and services and capital outlay are approximately 33.7 percent of the total current baseline budget. The reader must keep in mind that this baseline budget is a ‘snapshot’ in time and expenditures, particularly capital, will vary annually. This baseline budget, including budgeted capital expenditures, is used only as a model to determine potential cost savings of future cooperative efforts.

Baseline Personnel

In order to determine the appropriate model moving for any consolidated effort, it is necessary to first review the current levels of staffing with each department. The figure below restates the administrative and support positions within the study departments.

Figure 73: Administrative and Support Baseline Staffing

	Bethel	Nowthen	Oak Grove	Ramsey	St. Francis	Total
Fire Chief - POC	1.0	0	1.0	0	0	2.0
Fire Chief - Career	0	0	0	1.0	0	1.0
Asst. Chief – POC	1.0	0	1.0	2.0	1.0	5.0
Fire Marshal - Career	0	0	0	1.0	0	1.0
Admin. Asst. – POC	0	0	1.0	0	0	1.0
Admin. Asst.–Part time	0	0	0	0.5	0	0.5
Total POC	2.0	0	3.0	2.0	1.0	8.0
Total Career/PT	0	0	0	2.5	0	2.5

In determining the fiscal impact of any potential staffing model, only those personnel that are in paid positions, either career or part-time, are analyzed. It is assumed that any POC positions will remain in their current roles and responsibilities and that their fiscal impact will remain unchanged. The combined departments have a total of two full-time, one part-time (0.5 FTE) and eight POC administrative and support personnel. This equates to a ratio of administrative and support staff to total personnel of approximately 8.5 percent; which falls below the typically expected range of 10 to 15 percent.

The following figure lists each department’s current operational personnel resources and includes only those who are assigned to emergency field operations as a primary responsibility and schedule accordingly. All operational personnel in the study area are POC employees.

Figure 74: Field Operations Baseline Staffing

	Bethel	Nowthen	Oak Grove	Ramsey	St. Francis	Total
Captain – POC	1	0	2	3	1	7
Lieutenant – POC	2	0	5	3	4	14
Training Officer – POC	0	0	0	1	1	2
Inspector – POC	0	0	0	0	1	1
Firefighter – POC	7	0	22	43	15	87
Total POC	10	0	29	50	22	111

As with the administrative and support staff above, only those personnel that are paid, either career or part-time, are analyzed. It is assumed that any POC positions will remain in their current roles and responsibilities and that their fiscal impact will remain unchanged. As shown in the figure above, there are no full-time career personnel assigned to primarily operational functions.

In determining the potential savings due to cooperative efforts, major savings are typically seen from three primary areas of increased efficiency; facilities, apparatus and personnel. From a facility and apparatus perspective, the current deployment of fire stations is deemed appropriate for the geography and population distribution of the study area and no eliminations are recommended. Since no stations are recommended for elimination, little in the way of apparatus reduction would be recommended. While some apparatus, under a joint system, would be considered redundant and could be eliminated, no study department is heavily over-resourced. Finally, most personnel savings come from the elimination of surplus staff; whether administrative and support or operational. Since no operational staff are considered career personnel, no savings would be realized with a consolidation department,

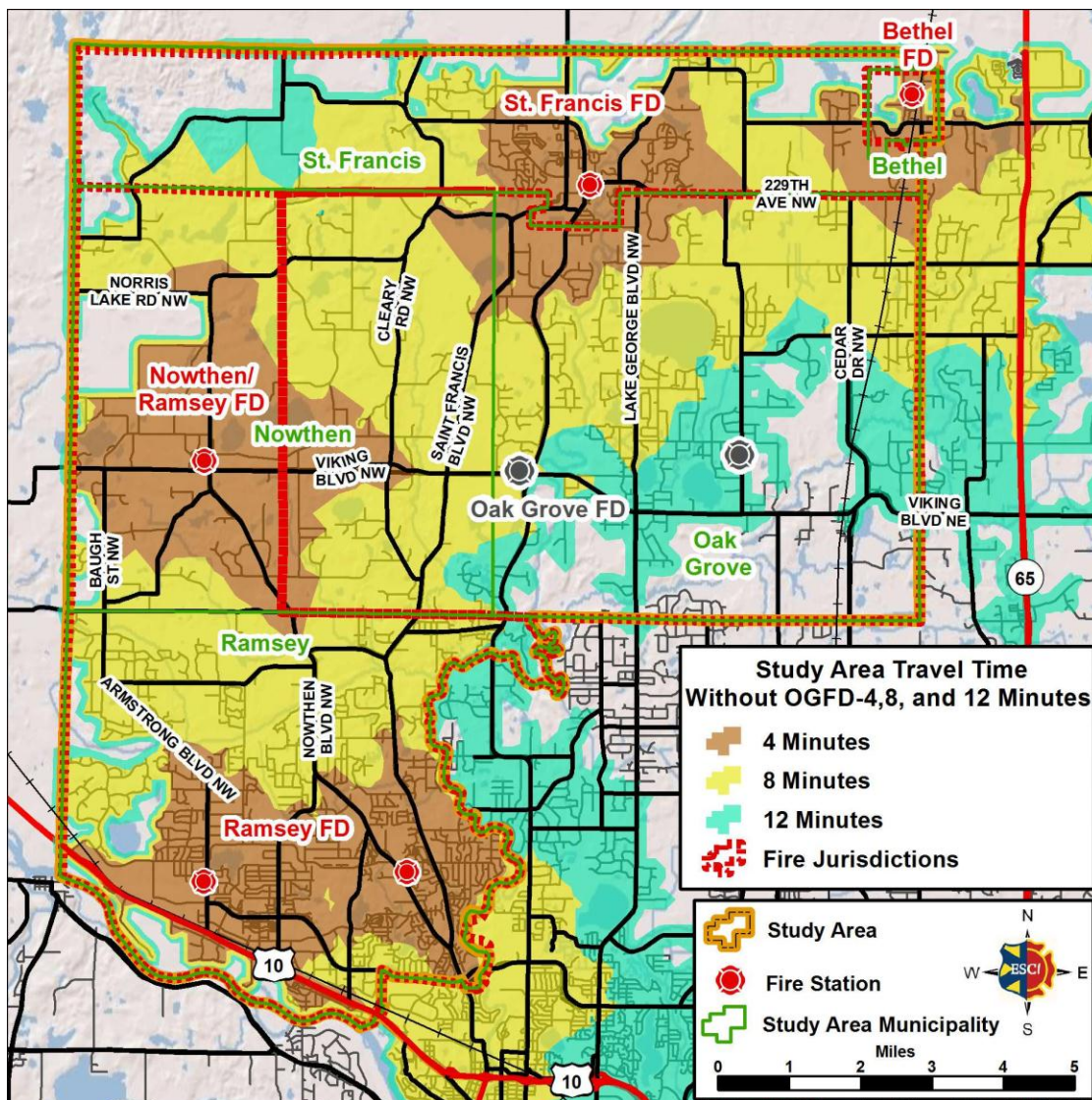
regardless of configuration. In addition, only 2.5 career administrative and support positions are identified and these would not be recommended for elimination under a combined organization regardless of configuration.

In short, given the current deployment of capital assets and the predominantly paid-on-call system in place, no savings would be realized from a consolidated organization. This is not to say that some level of efficiency would not be gained. Through a combined department, increases in coordination would be seen as well as a more integrated operational force during emergency incidents. While differences currently exist between the relief associations of the study organizations, changes would be necessary to combine the department's relief funds. This may require a financial investment based on the model chosen moving forward but until that model is chosen, little in the way of projection can be formulated.

Operational Cooperative Effort Alternatives

The full study area has already been discussed and would be the optimum model for the region given the size and shape geographically. However, ESCI understands that some agencies/municipalities may choose not to join the larger effort. The question was raised regarding the impacts that would result if one or more of the participating agencies were to withdraw from the regional collaborative effort. In order to provide the study participants with several options related to future service delivery, ESCI evaluated a number of alternative deployment scenarios. The first scenario involves the exclusion of OGF in a regional effort as illustrated in the following map.

Figure 75: Regional Deployment without OGF

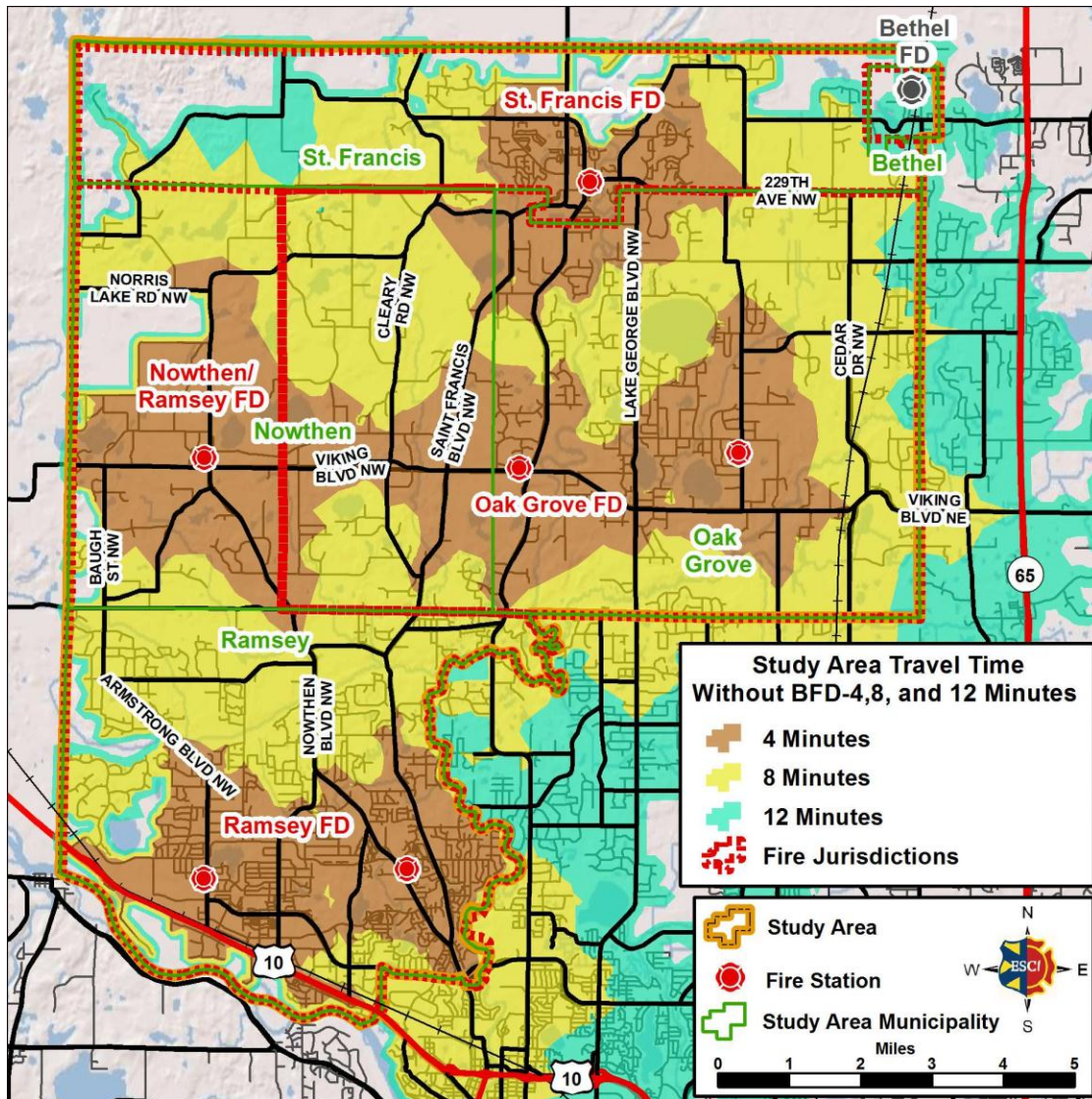


As can be seen in the figure above, the exclusion of OGF D leaves a substantial deployment gap in the four-minute travel model. Under current arrangements, mutual aid between the study agencies has been used to supplement each department's response in areas along the municipal borders. Under this scenario, response effectiveness will be compromised, requiring that current mutual aid practices be enhanced to include automatic aid through a more formal agreement that ignores municipal boundaries and allows for a 'closest station' response rather than focusing on jurisdictions.

It should be noted here that while the exclusion of OGF D in the deployment model does reduce the four-minute travel model effectiveness, the service demand within the Oak Grove response area (as well as Bethel) represents a small portion of the overall region's incident volume; therefore, the impact to response capability is minimal.

The second scenario involves the exclusion of BFD in the regional plan and is illustrated in the following figure.

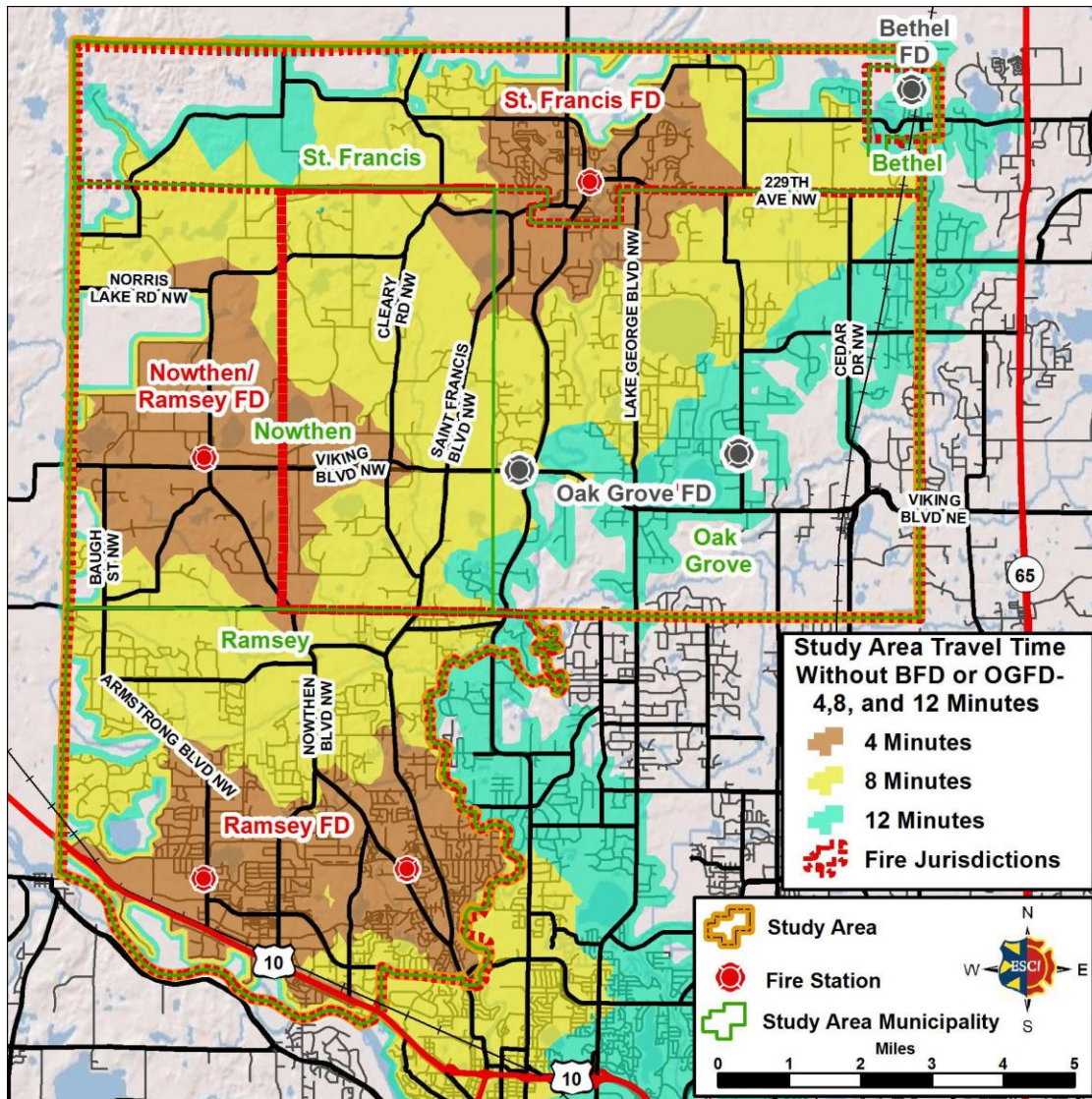
Figure 76: Regional Deployment without BFD



Under this approach, it is assumed that BFD would not participate in a regional model, which would decrease the regional response capability, particularly in eastern St. Francis and northern Oak Grove. As with the previous scenario, these departments already benefit from mutual aid in these areas; should this option be implemented, formal automatic aid would improve the overall regional response.

The third and final alternative deployment scenario involves a combination of the previous two where BFD and OGF both withdraw from future cooperative deployment efforts. The following map demonstrates this scenario.

Figure 77: Regional Deployment without OGFD or BFD



In order to evaluate each alternative against another, the following figure compares the service demand coverage and impact on response times within each of the alternative deployment scenarios.

Figure 78: Summary of Service Demand Coverage Capabilities

	4 Minutes	8 Minutes	12 Minutes
Full Consolidation	73.5%	97.2%	99.0%
Alternative 1 (OGFD Out)	75.5%	97.2%	99.0%
Alternative 2 (BFD Out)	71.7%	96.5%	99.3%
Alternative 3 (OGFD & BFD Out)	73.4%	96.6%	99.0%

Which of the aforementioned scenarios are chosen will ultimately determine the funding and governance model. This decision, as well as determining the details of operations, will be made during the implementation process discussed later in this report.

Functional Cooperative Efforts Strategies

Later in the report ESCI will evaluate and present the potential options that are available for combining the study departments into one or more new and larger agencies. However, ESCI also understands that cooperative efforts and shared services can take on a much different look. As mentioned previously, there are various methods by which to cooperate between departments and improve the overall efficiency of the organizations within a given region. This section will present various functional shared services options that any two or more departments may participate in to gain efficiencies, contain costs and increase effectiveness.

The following strategies are those that may be implemented as separate, stand-alone, agencies, absent legal merger and they may be viewed as a pre-cursor to future, more formal consolidation and/or merger initiatives.

Enhanced Use of Mutual and Automatic Aid

The agencies in the study area currently utilize Mutual and Automatic Aid. If more closely examined, opportunities to further enhance existing practices may be recognized.

Enhanced Mutual and Automatic Aid Agreements		Timeline: Short term
Objective: Enhance existing mutual and automatic aid agreements and formalize those agreements with city council approval.		
Summary Background: One of the most elemental levels of cooperative service delivery is that of the sharing of valuable resources, both equipment and people. A primary means for sharing resources is by the use of Mutual Aid and Automatic Aid. Mutual Aid involves establishing agreements under which a fire department can request and receive equipment and personnel support for an emergency incident from a neighboring fire department. Automatic Aid is the same, with the exception that it is automated based on dispatch protocols, absent the need for an incident commander to request the assistance.		
Policy Action: Review mutual aid and automatic aid procedures that are currently in place to identify opportunities to increase effectiveness. In jurisdictions for which Automatic Aid procedures have not yet been established, complete the implementation process. Review response times, including the maps provided in this report, to identify areas in which Automatic Aid can be initiated to enhance response. Do not limit consideration to the study agencies, but include review of station locations and travel times from other neighboring fire departments.		
Pro <ul style="list-style-type: none"> • Formalization of existing agreements • Identification of responsibilities, duties and liabilities • More efficient response • Reduced requirements on command personnel (automatic dispatch) • Increased interdepartmental cooperation 	Con <ul style="list-style-type: none"> • Potential of imbalance in responses • Substantial differences in current equipment load lists, compartmentation and staffing models 	
Fiscal Considerations: <ul style="list-style-type: none"> • Number and frequency of responses • Volume of equipment and personnel sent to incidents outside of the agency's jurisdiction • The cost of implementing these practices is generally offset by the fact that a similar level of assistance is provided by another agency in return. As a result, an organization may be able to avoid costs if Mutual or Automatic Aid resources are made available instead of adding new stations, apparatus and personnel to provide coverage in a response area. 		

Pre-Incident Planning

More effective use of pre-incident planning practices in the agencies will increase effectiveness of fire suppression efforts while also increasing firefighter safety.

Develop Uniform Pre-Incident Planning Processes		Timeline: Short term
Objective: Provide a system of shared operational plans for use during emergencies and non-emergent incidents.		
Summary Background: Pre-incident plans are an important part of the emergency response system to provide essential information on specific structures and processes. Through timely planning, strategy and tactics can be developed before an emergency occurs. Pre-incident planning involves evaluating protection systems, building construction, contents, and operating procedures that may impact emergency operations.		
Policy Action: Inventory current pre-incident planning development in each agency. Evaluate commonality between current systems of pre-incident planning. Consider the establishment of a committee to develop building criteria and data for inclusion in pre-incident plans. Develop a timeline for the implementation, completion, and review of pre-incident plans.		
Pro <ul style="list-style-type: none"> • Increased safety for all regional responders • More accuracy in planning of critical properties and high risk occupancies 	Con <ul style="list-style-type: none"> • None 	
Fiscal Considerations: <ul style="list-style-type: none"> • Current hardware and software assets and cost to upgrade or purchase hardware and software, if desired • Number of facilities/buildings with existing pre-incident plans versus those yet to be developed • Pace of new construction requiring pre-incident plans • Personnel costs to gather and assemble plans • Unquantifiable potential for prevention of injury or death to emergency responders and the public 		

Regionalized Incident Command

Incident Command practices vary between the subject agencies. Standardization of a regional approach is important, as has been recognized in the form of a county-wide system that is currently being developed in the area.

Implement Regional Incident Command and Operational Supervision		Timeline: Short term
Objective: Provide for IC (Incident Command) supervision of emergency operations. Provide for supervision of Paid per Call personnel during routine operations.		
Summary Background: The fire chiefs in the study departments have authority and responsibility for all aspects of day-to-day operations and personnel management. The chief will also assume command of emergency incidents or the role may be assumed by other trained command level officers in the department.		
Policy Action: Use standards of coverage and deployment planning to determine an appropriate level and number of incident commanders that may be needed at an incident. Compare current incident command practices and training activities to determine what is needed to combine them. Conduct joint incident command training exercises.		
Pro <ul style="list-style-type: none"> • Improved communications for scene command and control • Increased efficiency in scene size-up and request for additional resources • Improved interdepartmental cooperation 	Con <ul style="list-style-type: none"> • None 	
Fiscal Considerations:		
<ul style="list-style-type: none"> • No significant financial considerations. 		

Administrative and Support Services

The contractual arrangement between Ramsey and the cities of Nowthen and St. Francis serves as a good example of how administrative and support services can be combined. The concept may be further applied to include Bethel and Oak Grove, if deemed appropriate.

Combine Administrative and Support Services		Timeline: Short term
Objective: Combine the administrative elements of all agencies to promote improved efficiencies by eliminating duplication across the study region.		
Summary Background: An administrative consolidation occurs when two or more agencies maintain their separate legal status and separate operational elements but combine some or all of their administrative functions.		
Policy Action: Evaluate current administrative and support duties and responsibilities. Identify redundancies and potential reductions. Determine appropriate levels of staff.		
Pro <ul style="list-style-type: none"> • Improved interdepartmental consistency in human resources, hiring, payroll and other administrative functions • Reduction in redundancy resulting in better efficiency • Potential for moving redundant positions to operational roles 	Con <ul style="list-style-type: none"> • Potential loss of individual departmental identity • Difficulty in merging payroll and other human resources systems 	
Fiscal Considerations:		
<ul style="list-style-type: none"> • Could result in lower personnel costs by removing redundant positions • May require new personnel management IT systems 		

Shared Health and Safety Programs

The health and safety of firefighters is critical. Establishing a shared approach to addressing these needs in the Ramsey area can be beneficial to all five organizations.

Develop a Regional Health and Safety Program		Timeline: Short term
Objective: Provide a fire-service related health and safety program		
Summary Background: A single method and source for providing occupational and health services may provide savings through economies of scale and reduced worker’s compensation costs. The Minnesota Department of Labor and Industry (DLI), provides guidance on the formation and management of health and safety program. Additionally, <i>NFPA 1500, Standard on Fire Department Occupational Safety and Health Programs</i> , provides the minimum requirements for a fire-service related occupational safety and health program.		
Policy Action: Identify applicable requirements and standards for safety committees as established by Minnesota statute. Meet with representatives of both organizations to develop a jointly administered safety program. Determine required and desired specifications for an occupational safety and health program. Create a single personnel policy for occupational safety and health. Conduct baseline testing for firefighters without previous audio and lung function baseline records.		
Pro <ul style="list-style-type: none"> • Improves health and safety of all personnel across the region • Ensures that all personnel are receiving the same health benefits • Can potentially identify high risk personnel and allow for pre-treatment of serious conditions 	Con <ul style="list-style-type: none"> • Will increase costs of those departments that do not currently operate a comprehensive health and safety program. 	
Fiscal Considerations: <ul style="list-style-type: none"> • Occupational medicine programs are often menu driven. Items selected for inclusion in the program determine the final cost. • Additional financial factors involve whether the fire departments elect to exceed mandated requirements, perform some of the occupational medicine functions internally, or consolidate the occupational medicine program with interrelated programs. • Interrelating programs that share functions include wellness, infectious disease, FIT testing, EMS, and hazardous materials. 		

Capital Replacement Planning

Planning for long term replacement of capital assets was identified as a shared need between all of the agencies. Four of the five cities have replacement schedules in place for fire apparatus, which is commendable. Limited planning has been completed with regard to fire stations and other fixed facilities. Approaching planning from a regional perspective offers opportunities for cost savings and operational efficiencies.

Regional Capital Replacement Planning		Timeline: Short term
Objective: Adjacent agencies should work together to adopt a regional capital replacement plan that adequately funds the purchase of future apparatus. Outside regional cooperation, each city should adopt such a plan.		
Summary Background: Each fire department uses and maintains a variety of emergency apparatus types. Among the common types of apparatus, each department uses equipment of different makes, models, and configurations. A standard specification and procurement process for each apparatus type would result in lower cost, faster production, and training efficiencies.		
Policy Action: •Assemble data on current department apparatus, including: age, mileage, operating hours, maintenance costs, cumulative down time, and annual test results. Use the information to create a single apparatus refurbishment/replacement plan and schedule. Determine the replacement interval and projected life expectancy of each apparatus. Examine the merits of extending the useful service life of apparatus through rehabilitation and refurbishment.		
Pro <ul style="list-style-type: none"> • Formalizes capital replacement and identifies it as a priority • Allows for long-range planning for apparatus and equipment replacement • Reduces the need for special financing or bonding to purchase high value items 	Con <ul style="list-style-type: none"> • Will require a substantial investment to bring current fleet up to necessary levels for future funding • Will require additional annual funding to ensure that the plan is fully funded 	
Fiscal Considerations: <ul style="list-style-type: none"> • Time and effort savings by preparing fewer bid specifications. • Effort avoided by conducting fewer bid processes. • Investigate the letting of apparatus bids for periods longer than one year. • Cost savings in acquiring emergency fire apparatus. • Consider the purchase of stock versus custom apparatus. • Consider leasing versus outright purchase of emergency apparatus. 		

Apparatus and Equipment Purchasing

In concert with the above initiative, purchasing of fire apparatus and equipment can be shared, often resulting in significant cost savings and/or future cost avoidance.

Joint Purchasing of Equipment and Apparatus		Timeline: Long term
Objective: Create a single set of emergency apparatus specifications and provide for single-source uniform emergency apparatus for all study fire agencies.		
Summary Background: The study fire departments use and maintain a variety of emergency apparatus types and equipment such as self-contained breathing apparatus (SCBA), personal protective equipment (bunker gear, helmets, gloves, etc.), and all sorts of small and large tools and ancillary equipment . Among the common types of apparatus and equipment each department uses different makes, models, and configurations. A standard specification and procurement process for each apparatus and equipment type would result in lower cost, faster production, training efficiencies, and safer and more efficient scene operations. A joint purchasing program can also lead to a long-term program of sharing equipment across the region to enhance the capabilities of all participating departments. This could include a joint capital replacement plan that encompasses all heavy rolling stock within the region.		
Policy Action: Use provided data on current multi-agency fleet to generate a comprehensive apparatus replacement schedule including agreed upon replacement interval and projected life expectancy of all equipment. Examine the potential of refurbishment, rehabilitation, or remounting of apparatus if feasible and evaluate technological updates necessary in small tools and safety equipment. Develop and follow a prescribed load list for apparatus standard equipment.		
Pro	Con	
<ul style="list-style-type: none"> • The cost savings of purchasing a stock unit is often 20 percent or more when compared to a custom unit. • Consistency in equipment and compartments on apparatus can increase on scene efficiency and effectiveness. • Ease of training personnel from multiple agencies on use and operation of apparatus and equipment. • Apparatus can be painted in accordance with current department models without losing effectiveness of consistency in construction and operation. 	<ul style="list-style-type: none"> • Potential loss of customization by study agencies. • Long process of increasing consistency. • Specialization of apparatus based on community risk will impact certain equipment needs. 	
Fiscal Considerations:		
<ul style="list-style-type: none"> • Time and effort savings by preparing fewer bid specifications. • The prospect for conducting fewer bid processes. • Cost savings in acquiring emergency fire apparatus and equipment. • Consider the purchase of stock versus custom apparatus. • Consider leasing versus outright purchase of emergency apparatus. 		

Shared Recruitment and Retention Efforts

All of the participating agencies depend heavily on the use of Paid on Call responders and, as a result, share a common need for recruitment and retention of capable personnel. Shared recruitment and retention activities offer the opportunity to pool personnel resources and offer additional gains, as noted below.

Joint Recruitment and Retention Program		Timeline: Short term
<p>Objective: Create a regional recruitment program that draws on the specific demographics of the communities served and coordinates hiring processes that provides for consistent application and evaluation components. Make retention programs (pay, benefits, etc.) more consistent in order to prevent personnel from leaving one agency and joining another.</p>		
<p>Summary Background: A joint recruitment and retention program would allow all the study departments to pool their resources and apply for regional grant opportunities in order to attract more paid-on-call personnel to the system.</p>		
<p>Policy Action: Evaluate the demographics and potential of each community regarding paid-on-call personnel. Work as a region to develop and implement a joint recruitment program. Apply for a joint grant that covers the entire region’s recruitment efforts. Support other departments as applications come in through a system of coordinated review. Work as a region to make pay and benefits more consistent. Work with each municipality to align relief association benefits across the region.</p>		
<p>Pro</p> <ul style="list-style-type: none"> • Reduced costs of recruitment and application processes. • Potential for regional grants for recruitment and retention programs. • Information sharing between departments on potential members. 	<p>Con</p> <ul style="list-style-type: none"> • Potential of increased costs due to alignment of relief association benefits for existing members. • Increase in soft costs of coordinating recruitment campaigns and application review processes. 	
<p>Fiscal Considerations:</p> <ul style="list-style-type: none"> • Time and effort savings by joining recruitment efforts. • The prospect of potential grant funding for a regional effort. • Potential cost savings in conducting coordinated application reviews and background checks. 		

Regionalized Training Opportunities

Training of emergency responders is a need that is common to all five organizations. Currently, training is generally conducted independently, offering opportunities to address shared training needs based on a regionalized perspective.

Regional Training Program		Timeline: Short term
Objective: Consolidate training programs to provide more options for volunteer attendance and to capitalize on the instructor base of each agency.		
Summary Background: In regard to ongoing training, the departments currently have separate training programs, which may limit instructional opportunity, duplicate recordkeeping, and foster separation of workgroups. This is already being done to a certain degree regarding recruit training. This program should be expanded to include ongoing continuing education for all levels of personnel.		
Policy Action: Agencies should expand the current model of joint initial training and develop joint ongoing training program standards and objectives that comply with published standards and effectively address all mandatory training requirements.		
Pro <ul style="list-style-type: none"> • Personnel would have more options to attend training on alternative days/nights. • Interagency training opportunities with consistent instruction should result in enhanced emergency scene cooperation, teamwork, and performance. • Reduced cost and duplication of effort in the planning and development of course materials. • Broader array of topics, apparatus, tasks, and evolutions for the volunteers to experience. • The program could easily expand to include other agencies, further enhancing the training opportunities throughout the region. 	Con <ul style="list-style-type: none"> • Cooperative effort may result in less agency-specific training and flexibility. 	

Regional Training Program	Timeline: Short term
<p data-bbox="162 231 438 262">Fiscal Considerations:</p> <ul data-bbox="162 262 1453 804" style="list-style-type: none"><li data-bbox="162 262 1453 336">• A reduction in duplicated staff effort (reduces soft costs) and training staff to develop similar but separate programs based on the same or differing standards.<li data-bbox="162 336 1453 367">• A potential for reduced specialized training costs through a larger pool of personnel.<li data-bbox="162 367 1453 441">• The elimination of duplicated staff effort (reduces soft costs) in the selection, development, and updating of separate training manuals.<li data-bbox="162 441 1453 514">• Instructional time is likely impacted during multi-agency training sessions by reducing or eliminating the time devoted to adaptive or remedial training.<li data-bbox="162 514 1453 588">• An emergency workforce trained under a cooperative system is more efficient and effective in reducing property damage and loss during emergency incidents.<li data-bbox="162 588 1453 661">• An elimination or reduction in duplicated staff effort (reduced soft costs) in the creation and updating of multiple training plans.<li data-bbox="162 661 1453 735">• Instructional time is increased during multi-agency training sessions with personnel trained to selected certification levels.<li data-bbox="162 735 1453 766">• A reduction in costs through coordination of shared training resources and equipment.<li data-bbox="162 766 1453 804">• Economies of scale in the collective purchase, use, and maintenance of a single RMS.	

Regionalized Fire Prevention and Public Education

Like training, fire prevention and public education needs are similar in the participating agencies. As discussed in the Evaluation of Current Conditions section of this report, prevention focus varies considerably between each of the participants. Collaboration in the area of fire prevention and public education offers multiple advantages, as discussed below.

Regional Code Enforcement and Life Safety Education Program		Timeline: Mid term
<p>Objective: Provide for a Uniform Fire Code with a single set of local amendments that apply to new construction, remodels, and tenant improvements as well as providing for cost effective, regional code enforcement activities and life safety education programs.</p>		
<p>Summary Background: The municipalities comprising the study region have adopted the state fire code and, with only a few exceptions, each has added local amendments to address issues considered unique to the jurisdiction. Several have imposed more stringent fire sprinkler requirements. Adopting a single fire code would benefit the fire departments, developers, and the citizens of the region. One such benefit includes a decrease in the cumulative cost of individually developing local amendments to the fire code. This could take the form of a county-funded fire marshal’s office to oversee the county-wide program and provide code enforcement and inspections services throughout the unincorporated area.</p>		
<p>Policy Action:</p> <ul style="list-style-type: none"> • Formalize the creation of the coalition through a written agreement. • Involve others from outside the area and from non-traditional groups (insurance industry, educators, SC State Fire Marshal, media). • Create standardized messages that can be used across the region. • Learn from others. Model the coalition after other successful regional public fire safety education programs. • Some agreements related to current local amendments could be affected by changes or the adoption of new amendments. • Agencies must work closely with all building officials in the adoption of local amendments. • Develop a model citation program for local adoption as part of the local amendments. 		
<p>Pro</p> <ul style="list-style-type: none"> • Fire codes and enforcement of those codes would be more consistent throughout the region. • Municipalities can share resources to ensure that programs are delivered throughout the region. • Reduced cost by consolidated resources. 	<p>Con</p> <ul style="list-style-type: none"> • Loss of local control of inspection program. • Potential loss of municipality-specific education programs. 	

Regional Code Enforcement and Life Safety Education Program	Timeline: Mid term
<p>Fiscal Considerations:</p> <ul style="list-style-type: none">• The elimination of duplicated staff effort in the creation and distribution of public fire safety education messages reduces soft costs.• Cost savings can be achieved through group purchasing of materials and other media.• Departments currently without a presence in public education efforts would see a cost increase.• Marginal costs of creating a single fire code should compare favorably against the reduced level of effort required individually by the agencies.	

Unification of Standard Operating Guidelines

Each of the agencies has developed Standard Operating Guidelines that are well established. While the SOGs are generally acceptable as they stand, efforts to standardize the procedures regionally will improve operating efficiency and, most importantly, firefighter safety.

Unified Standard Operating Guidelines/Procedures		Timeline: Short term
Objective: Provide guidelines for operation during emergencies, emergent, and non-emergent incidents.		
Summary Background: Currently each fire agency in this study is responsible for developing a unique set of standard operating guidelines for their organization.		
Policy Action: Adopt common operational guidelines that are kept in electronic format for ease of updating and distribution. Give initial and recurring education to personnel on the use of the joint guidelines. Provide for periodic review of manuals and update as necessary.		
Pro <ul style="list-style-type: none"> • Improvement in on-scene safety, efficiency and effectiveness of personnel. • Reduced confusion in the delivery of service. • Common methods of approach 	Con <ul style="list-style-type: none"> • Limited individuality in specific administrative policies and procedures. 	
Fiscal Considerations: <ul style="list-style-type: none"> • The elimination of duplicated staff effort in the creation and updating of standard operating guidelines will reduce soft costs. • Instructional time optimized during multi-agency training sessions by excluding time devoted to adapting to differing procedures. 		

Findings, Recommendations and Plan of Implementation

This section of the report describes a recommended process for moving forward with the potential implementation of a cooperative service delivery effort. The word potential is used here because a part of this process includes the policy decisions necessary to determine, based on the results of the study, whether there is sufficient desire among the political bodies of the organization to continue with the process or not. The implementation begins with that step.

Findings and Recommendations

Based on the analysis completed by ESCI during this process, it is obvious that the study fire departments have historically worked well together and continue to do so today. While a certain level of cooperative efforts is in effect currently, there is additional room for improvement and increased efficiency. The City of Nowthen already receives fire protection through the City of Ramsey and the City of St. Francis is already using Ramsey Fire Department to provide fire department oversight through a contracted fire chief. It would make sense that these three organizations continue along the path of organizational integration and become a single operating entity. This can be accomplished by any of the methods discussed previously. Which method is ultimately chosen is a policy decision based squarely in the hands of the elected officials within each community.

It is ESCI's belief that, upon the implementation of this three-city cooperative effort, the City of Bethel would be the next likely partner. Given that the city is currently surrounded on three sides by St. Francis, inclusion of this agency into the larger department would also be considered feasible. While the City of Oak Grove is large and diverse, the department could benefit from also joining the cooperative effort by eliminating the need for mutual and/or automatic aid, particularly in the western and northern portions of their existing response area.

Plan of Implementation

This section of the report describes a recommended process for moving forward with the potential implementation of a cooperative service delivery effort. The word potential is used here because a part of this process includes the policy decisions necessary to determine, based on the results of the study, whether there is sufficient desire among the political bodies of the organization to continue with the process or not. The implementation begins with that step.

Conduct Vision Session(s) with Policymakers

The initial stage of implementation begins with the most elementary decision: “Do we want to move forward or not?” It is extremely important that, at this stage of the process, it is clearly recognized that this is a public policy decision on the part of the governing entities involved. A decision to consider altering the way in which a critical public safety service is provided, in some cases even permanently altering the governance of those services, is clearly in the purview of the elected bodies. While senior management input should be considered, the final decision should not rest at any level lower in the organization than those who are elected to represent the customers.

For this reason, it is recommended that the elected representatives meet together for the initial discussion of the feasibility study and its projected operational and fiscal outcomes. Depending on the number of elected officials, the policymakers can decide whether to include all elected officials or a representative group assigned to represent each governing entity. During this policy stage, involvement by additional staff should be kept to a minimum, perhaps at the senior management level, and then for the sole purpose of providing technical support. It is important to limit the ability for the process to be “hijacked” at this point by strenuous arguments for or against the idea from those operations level personnel whose opinions may be influenced by turf, power, or control issues. Stakeholder input is important, but plentiful opportunity can be provided for this once the policy bodies have determined what is in the best interest of their citizens as a matter of public policy.

It is equally important that the policy bodies recognize exactly what decision is being considered in the initial vision meetings. The purpose is to weigh the strategies, operational advantages, fiscal outcomes, and potential impediments of the feasibility to determine whether to commit local resources to move the process forward. The decision is not, at this point, a final decision to “flip the switch”. The final commitment to take legal actions necessary to finalize implementation of any given strategy will come much further into the process.

This initial vision meeting can be likened to the court process known as a probable cause hearing. The purpose of such a hearing is for a judge or grand jury to determine if sufficient evidence exists to warrant an arrest and a trial. The probable cause hearing does not determine the final verdict or sentence. That occurs after the much more thorough process and deliberation of the trial. Likewise, the vision meetings are for the policymakers to judge whether sufficient evidence exists to warrant moving forward. The final verdict on whether to take legal or contractual actions to implement will come after

weeks, months, or even years of additional detailed planning work involving stakeholders, operations staff, legal counsel, finance personnel, and others. As this actual implementation planning work moves forward, there may be several points at which new information or undefeatable obstacles arise that cause one or more communities to decide not to finalize and implement the plan.

The term “vision session” is used here because the policymakers will be determining their joint decision on a future vision toward which the additional work of implementation will be directed. In many cases, several legal, operational or functional strategies are presented as being feasible in the study. These may involve various options for governance, finance, and organizational structure. Which one or ones should the entities pursue, if any? This will become the joint vision of the policymakers.

One of the best methods for initiating this vision process is to begin with policymakers sharing an open discussion of critical issues. Each entity representatives can present a short description of those critical issues, service gaps, or service redundancies that might be concerning them relative to their provision of public safety services. As each entity takes their turn presenting these issues, a picture typically emerges of those shared critical issues that two or more of the entities have in common. This assists in focusing the discussion on which of the feasible options from the study best address those critical common issues and how.

As the discussion focuses on those feasible options with the greatest opportunity to positively impact shared critical issues, the discussion can expand to the strengths and weakness of the strategies relative to the conditions, financial abilities, and cultural attitudes of the communities involved. There should be a concerted effort to remain at a policy level without becoming overly embroiled in operational discussions of implementation details. Those will be addressed once a common vision has been established for a future strategy that is in the best interest of all the communities involved.

This is also the time that communities may make the decision to opt out of further involvement. This may occur for a number of reasons. There may be legitimate concern that an individual community does not truly share an adequate number of common critical issues with the other communities. There may also be a legitimate concern that the feasible strategies do not do enough to benefit a given community and would leave it with too many remaining critical issues. And, of course, there is always the possibility that a given community will not feel that the projected financial outcome is within their ability or provides a cost-benefit that is better than their current situation. Any such decisions by one or more communities should not be considered a discouraging factor, for that is the very purpose of the vision

sessions. In many cases, other remaining entities continue moving forward with a shared vision for cooperative service delivery even after one or more communities determine not to.

The goal of the vision session(s) is to come out with a decision by the policy bodies on whether to continue with the next steps and, if so, what direction those steps should take. The vision should be sufficiently decisive as to be actionable by senior appointed officials and staff. While there will be many, many details to work out in the implementation process, the vision should clearly articulate the intention of the agreeing policy bodies on the desired outcome from the specified cooperative service strategy or strategies. Once this occurs, the real work begins.

After setting the joint vision, this policymaker group should meet together at set intervals, or as needed, to hear the progress of the Implementation Committee and its Working Groups and refine direction when necessary. The appropriate interval will depend on the situation and the complexity and length of the process itself, but often a quarterly meeting is sufficient.

Establish a Joint Implementation Committee

The next step in the process is to establish a Joint Implementation Committee that will be given the overall responsibility with leadership and management of the planning and implementation process. This will be the “nuts and bolts” group that works through the details, overcomes the challenges, reacts to new information, and makes many of the actual decisions on the implementation plan. This group should have much wider representation from stakeholders both inside and outside of the individual organizations involved. Membership in the Joint Implementation Committee may include senior management personnel and, where appropriate, labor representatives. The following is an example of a Joint Implementation Committee:

- City Manager (or equivalent) from each community
- Fire Chief
- Finance Director from each community
- Volunteer representatives from each volunteer organization involved

The Joint Implementation Committee should select a chair or co-chairs to function as organizers and facilitators for the committee meetings. In addition, their first order of business should be to determine the rules and procedures of this committee. This should include such items as:

- How often does this group meet (monthly is typical)?
- How are absences handled (assigned alternates are recommended)?

- How does communication (occasionally secure) within this committee take place?
- How will meetings be conducted? Are there “rules of conduct” for the meetings?
- Under what circumstances will the meetings be opened to attendance by non-members?
- How will the group pursue consensus? When voting is necessary, how will that occur?

Develop an Implementation Strategic Plan

Once the ground rules have been set, the Joint Implementation Committee should schedule a strategic planning process. Consideration should be given to having this strategic planning process directed by neutral outside professionals trained in strategic planning facilitation. The strategic planning process should be held in a neutral setting away from the daily activities and noise of the usual office environment. It need not be an expensive retreat, but it should be organized in a way to focus energy and attention exclusively to the planning process for its duration.

The purpose of the initial strategic planning session should be as follows:

- To further articulate and refine the joint vision set by the policy bodies.
- To identify critical issues that will be met as the implementation process unfolds
- To identify potential impediments to implementation from:
 - Organizational culture
 - Availability of data and information
 - Lack of sufficient staff to carry through implementation processes
 - Outside influences and time demands
- To set the specific goals and objectives of the implementation process and the timelines for accomplishment
- To establish the necessary Implementation Working Groups

This process should result in the preparation of an implementation planning document that can be shared with the policy body, stakeholders, and others who will be involved in or affected by the implementation process. The document should provide the joint vision, describe the cooperative service strategy or strategies being pursued, the desired outcome, the goals that must be met in order for implementation to be achieved and the individual objectives, tasks and timelines for accomplishment. When fully and adequately prepared, this document will serve as the master “road map” for the process and will help guide the next steps of developing working groups and assigning responsibilities.

Establish Implementation Working Groups

As part of the implementation strategic planning process, various Implementation Working Groups should be established that will be charged with responsibility for performing the necessary detailed

work involved in analyzing, weighing and deciding on specific processes. Membership for these Implementation Working Groups should be roughly identified as part of that process as well.

The number and titles of the working groups will vary, depending on the type and complexity of the strategies begin pursued. However, the following list provides some typical working groups used in most consolidation processes and a description of some of their primary assigned functions and responsibilities.

Governance Working Group

This group will be assigned to examine and evaluate various governance options for the cooperative service effort. A recommendation and process steps will be provided back to the Joint Implementation Committee and the Policymaker Group. Once approved, this working group is typically assigned the task of shepherding the governance establishment through to completion. The membership of this group typically involves one or more elected officials and senior city/district and agency management.

Finance Working Group

This group will be assigned to review the financial projections contained in the feasibility study and complete any refinements or updating necessary. The group will look at all possible funding mechanisms and will work in partnership with the Governance Working Group to determine impact on local revenue sources and options. Where revenue is to be determined by formula rather than a property tax rate, such as in a contractual cooperative venture, this group will evaluate various formula components and model the outcomes, resulting in recommendations for a final funding methodology and cost distribution formula. The membership of this group typically involves senior financial managers and staff analysts, and may also include representatives from the agencies' administrative staffs.

Legal Working Group

Working in partnership with the Governance Working Group, this group will identify study all of the legal aspects of the selected strategy and will identify steps to ensure the process meets all legal obligations of process and law. Where necessary, this group will oversee the preparation and presentation of policy actions such as ordinances, joint resolutions, dissolutions, and enabling legislation. The group will also be responsible for working with other elected bodies, such as State Legislatures, when necessary to accomplish establishment of local selected governance. The membership of this group typically involves legal counsel from the various entities involved and may also include senior city/district management staff.

Operations Working Group

This group will be responsible for an extensive amount work and may need to establish multiple sub-groups to accommodate its workload. The group will work out all of the details of necessary operational changes required by the strategy. This involves detailed analysis of assets, processes, procedures, service delivery methods, deployment, and operational staffing. Detailed integration plans, steps and timelines will be developed. The group will coordinate closely with the Support Services and Logistics Working Group, if established. The membership of this group typically involves senior agency management, mid-level officers, training staff, and volunteer representatives. This list often expands with the complexity of the services being provided by the agencies.

Support Services and Logistics Working Group (Optional)

This group will be responsible for any required blending of capital assets, disposition of surplus, upgrades necessary to accommodate operational changes, and the preparation for ongoing administration and logistics of the cooperative effort. The membership of this group typically involves mid-level agency management, administrative and support staffs. Where involved, support divisions such as Maintenance, Fire Prevention, etc., will also be represented.

Communications Working Group

Perhaps one of the most important, this group will be charged with developing an internal and external communication policy and procedure to ensure consistent, reliable and timely distribution of information related to the cooperative effort. The group will develop public information releases to the media and will select one or more spokespersons to represent the communities in their communication with the public on this particular process. The important of speaking with a common voice and theme, both internally and externally, cannot be overemphasized. Fear of change can be a strong force in motivating a group of people to oppose that which they do not clearly understand. A well informed workforce and public will reduce conflict. The membership of the group typically involves public information officers and senior city or agency management.

Meet, Identify, Challenge, Refine and Overcome

Once the working groups are established, meeting, and completing their various responsibilities and assignments, it will be important to maintain organized communication up and down the chain. The working group chairs should report regularly to the Joint Implementation Committee. When new challenges, issues, impediments, or opportunities are identified by the working groups, this needs to be

communicated to the Joint Implementation Committee so that the information can be coordinate with findings and processes of the other working groups. Where necessary, the Joint Implementation Committee and a working group chairperson can meet with the Policymakers to discuss significant issues that may precipitate a refinement of the original joint vision.

The process is continual as the objectives of the strategic plan are accomplished one by one. When sufficient objectives have been met, the Joint Implementation Committee can declare various goals as having been fully met until the point comes when the actual implementation approval needs to be sought from the policy bodies. This formal “flipping of the switch” will mark the point at which implementation ends and integration of the agencies begins.

Conclusion

Several of the study departments currently share certain services and work homogenously while all of the study departments benefit from mutual aid responses from one another. Expanding the existing spirit of cooperation to gain even more efficiencies is the next logical step. Given that the State of Minnesota does not currently have legislation allowing the creation of special fire districts, a Joint Powers Authority (JPA) appears to be the preferred method of joining the study agencies under a single model of governance. Under this model, each municipality would retain its current level of control and a methodology for funding the joint agency would be determined as the details are nailed down. The following pros and cons should be considered with the JPA decision:

Pros: From a system design standpoint, service delivery is standardized, use of available resources is maximized, and overall system proficiency is achieved. Further, under a JPA, each entity maintains autonomy regarding taxation and each retains the ability to withdraw from the agreement in the future. Each participant provides a defined financial contribution to the operations of the JPA as outlined in the enabling documents. No legislative approval is required for this type of agreement and the intergovernmental agreements created would define how the JPA was governed as well as how each participant is represented.

Cons: The fact that each entity remains autonomous also presents a disadvantage. Since any participant can withdraw at any time, there is no long-term, established commitment to the JPA. The advantages realized by joining efforts may be reversed unexpectedly and long-range planning is particularly difficult when the group is not sure what the JPA configuration may look like in the future.

As part of a comprehensive implementation process, the issues of representation, funding, operations, relief associations and others will be worked through and implemented by consensus of the participating entities. While a JPA allows individual agencies to join and/or leave the combined organization, for the optimum advantage and efficiency to be gained, all study departments would need to participate. BFD, being located in the far northeast corner of the region is the least impactful but can still provide a valuable service to eastern St. Francis and northern Oak Grove through mutual and automatic aid or through a joint dispatch of the closest available unit. Oak Grove, however, is the most impactful as it is, more or less, in the middle of the region and provides the needed central core response resources to a regional system. While a continuation or even expansion of the current joint

efforts between Ramsey, Nowthen, and St. Francis would continue to provide added efficiencies to the system, adding other service partners would fill current gaps and allow the region to function more uniformly and effectively.

Another major obstacle to full consolidation of regional resources lies within the Firefighter Relief Associations. These entities that provide limited retirement benefits to volunteer fire personnel will need to come together and equalize if a regional cooperative effort is to be seamless. While similar, the current Relief Associations have some stark differences (as has already been discussed). RFD's Relief Association is the only Defined Contribution plan in the region while the others are Lump Sum. In addition, there is a substantial difference between the benefit levels of BFD as compared to the other study departments. In the case of a full consolidation, regardless of governance model, the City of Bethel stands to see the largest impact as the Relief Associations are equalized in how they provide benefits and at what level. One method to lessen this impact is to cap the current Relief Associations at current levels and join the State of Minnesota's State Volunteer Firefighter Retirement Plan (SVFRP). This program is similar in nature to existing lump sum plans. The details of how this conversion would occur would be determined during an implementation planning process after the decision is made to move forward with further investigating opportunities for collaboration.

Another key consideration is that of ownership of capital assets under a JPA approach, including fire stations and apparatus. The preferred methodology in a truly integrated system, such as formation of a fire district with taxing authority, is for the newly formed entity to own and maintain all capital assets. Doing so accommodates effective maintenance and replacement planning.

The drawback to transferring ownership under a JPA configuration is that an agency may choose to withdraw from the agreement in the future. If so, and assets are no longer owned by the agency and its ability to return to providing its own services is problematic.

If ownership of assets is to be maintained independently, the JPA will need to establish agreed upon commitments from each participant regarding the capital equipment and facilities that each will contribute to the effort. Facilities may be separated from apparatus with an agreement, for example, that "Agency A" agrees to provide and maintain one fire station with a minimum capacity of "X" fire vehicles and defined accommodations for the duration of the agreement. Similarly, each participant may agree to contribute an established number of Class A pumpers, water tenders, brush trucks, or

other vehicles, as defined by *NFPA 1901* standards for consistency and in compliance with established maintenance and serviceability standards.¹⁴

Regardless of the process that is used to address the ownership of capital assets, the maintenance of a well-defined capital replacement plan will be essential. Incumbent with the replacement plan, each participating agency will need to agree to an annual financial contribution with which to fund the replacement schedule.

While this intent of this project was to investigate the feasibility of the regional departments coming together in a collaborative effort, ESCI cannot make policy decisions for the participating agencies. Each city, armed with the information contained within this report that indicates that consolidation into a single fire agency is feasible, will have to gauge the sentiments of their respective communities and make an informed decision as to how to move forward, understanding that simply making the decision to move forward is not 'flipping the switch' of consolidation. Further investigation will be necessary and consensus decisions will need to be reached regarding governance, funding, staffing, operations, deployment, and legal concerns.

A tremendous amount of data and information is contained within this document, much of which was supplied by the agencies involved and then analyzed and evaluated by the ESCI project team. In the end, the study departments, like many other paid-on-call fire departments across North America, are operating at a level that is currently meeting the expectations of the communities served but realize that there is always room for improvement. Regardless of the path that policymakers chose moving forward, the information contained with this report is intended to be used by the fire departments to follow a process of continuous quality improvement in an ongoing cycle of self-evaluation.

ESCI began collecting data and working with community stakeholders for this project in February 2013. Analysis of data and collection of stakeholder input has taken over three months to compile to develop options for future service delivery within the study area. It is ESCI's sincere hope that the information contained within this document is seen as useful in enhancing the way in which fire and emergency services are delivered throughout the area.

¹⁴ *NFPA 1901 Standard for Automotive Fire Apparatus.*



Corporate Offices
25200 SW Parkway Avenue, Suite 3
Wilsonville, Oregon 97070
800.757.3724

Eastern Region Office
111 Kilson Drive, Suite 208
 Mooresville, North Carolina 28117
704.660.8027

National Capital Region Office
4025 Fair Ridge Drive
Fairfax, Virginia 22033
703.273.0911