Fire Departments Shared Services Study

Three Departments
One Goal: Saving Lives
By Working Together

City of Eveleth FD – Fayal Township FD – City of Gilbert FD

Conducted by

McGrath
CONSULTING GROUP, INC.

Final Report – October, 2018

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Executive Summary

The intent of the executive summary is to give an overview of the most important issues and opportunities identified by the consulting team during the course of the study. The reader is highly encouraged to read the document in its entirety in order to gain an understanding of the recommendations presented within the report. Reading only the executive summary does not provide ample information on which to base decisions or to judge the recommendations made within this report.

The City of Eveleth, Fayal Township, and City of Gilbert participated in a Shared Service Study funded 90% from the State of Minnesota Governor's Fire and Rescue Services Task Force, and 10% shared by the three municipalities. The purpose of the study was to take a comprehensive independent assessment of each fire department; identifying areas of excellences and opportunities for greater shared services with the intent to improve services, ensure cost efficiency, and seek a plan for future service delivery.

McGrath Consulting Group, Inc. submitted a proposal through Executive Order 09-13 providing for The Governor's Task Force on A Shared Services Approach To Fire And Rescue Services In Minnesota. The designated representative representing the three municipalities and fire departments was Chief Steven Shykes. The initial grant request to the State for the study was a combined effort of the three Fire Chiefs.

All three municipalities, and those served by their respective fire departments, should be proud and confident that they are served by very dedicated professionals who serve as volunteers only receiving a small reimbursement (paid-on-call) for their time. However, this study explored opportunities to improve services and create a safer environment for those that provide emergency fire and EMS services and those that receive them. The summarization of this report will indicate that an expansion of shared services is an appropriate approach. This would be in the form of an Operational Consolidation under a Joint Power Agreement by the municipalities, which would allow for greater shared services.

Introduction

The City of Eveleth, Fayal Township, and City of Gilbert, in Saint Louis County, Minnesota chose to evaluate and explore future opportunities in jointly providing emergency fire protection through a consolidation within a defined "study area." The three communities jointly hired McGrath Consulting Group, Inc. to assist in identifying potential areas of opportunity for examining the most cost effective and efficient methods in providing quality protection to residents and visitors within the study area.

McGrath Consulting Group, Inc. recognizes that each community has its own unique opportunities and challenges and any potential resulting consolidation would not be without challenges, as well. The overarching goal of all three communities participating in this study is to provide their residents and visitors with the highest level of emergency services possible within the fiscal capabilities of each community.

Study Methodology

The consultants made several site visits to meet with and interview key stakeholders in each community and organizations including elected governing officials, appointed government officials, fire department leadership, community leaders, and residents. During these site visits, the consultants gathered and analyzed both qualitative and quantitative data in order to gain a better understanding of the existing state of the organizations as they currently exist such that future opportunities for greater cooperative efforts could be identified.

In order to provide a robust report, the consultants conducted a comprehensive audit of the Eveleth, Fayal and Gilbert Fire Departments, separately, to assess existing apparatus, facilities, staffing, employment, resource deployment and general operational procedures. The consultants make recommendations in this report that would be of significant benefit to each of the organizations studied.

Five consultants participated in this study and analyzed topics appropriate to their specific skills and expertise. All but the last consultants listed below made a minimum of a site visit. The consultant team consisted of:

- Dr. Tim McGrath CEO – Project Manager
- Chief Justin Heim, Ph.D. – Lead fire/EMS consultant
- Dr. Victoria McGrath CEO – McGrath Human Resources Group
- Ms. Malayna Halvorson-Maes – Human Resource consultant
- Chief Robert Stedman – fire/EMS Consultant

The consultants are extremely appreciative of the numerous stakeholders who participated in the study, each of whom ensured that the consultants were able to receive the information requested for the study in a timely manner. The consultants wish to express special appreciation to the three Fire Chiefs who provided data, as well as the City and Township governing and appointed officials for their candor and information.

Study Area

The study area consists entirely of the incorporated areas of the City of Eveleth and the City of Gilbert as well as the unincorporated Town of Fayal. The Eveleth Fire Department provides coverage to the City of Eveleth and the City of Leonidas, encompassing a primary response area of approximately 7.5 square miles serving approximately 3,929 residents. The Fayal Fire Department provides coverage to the Town of Fayal, including a primary response area, that encompasses approximately 36 square miles and approximately 1,900 residents. The Gilbert Fire Department provides coverage to the City of Gilbert, including a primary response area, that encompasses approximately 12.86 square miles and approximately 1,799 residents.

The following figures represent the coverage areas of the three fire departments being studied:

Figure 1: Eveleth Fire Response Area

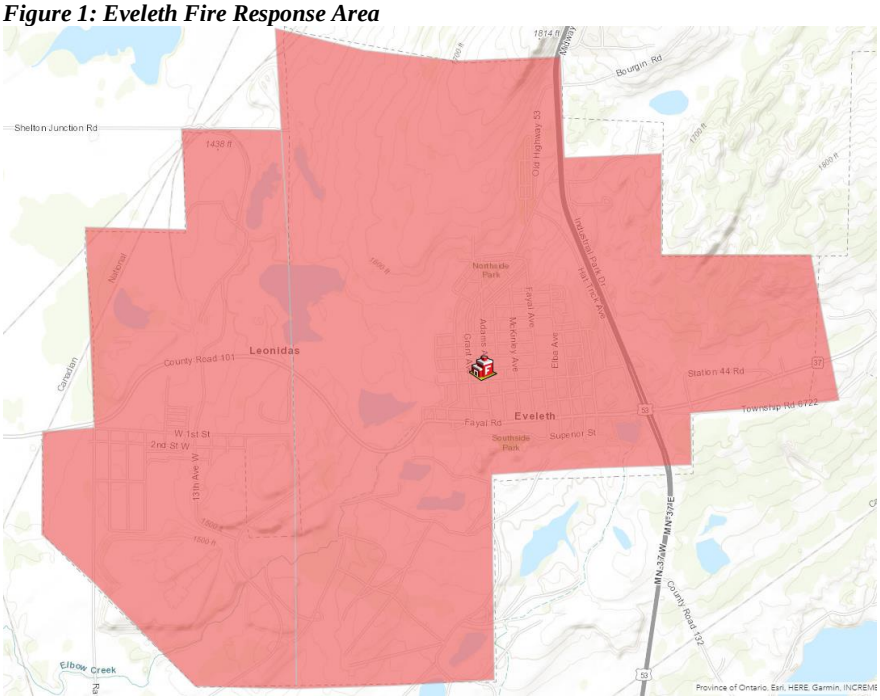


Figure 2: Fayal Fire Response Area

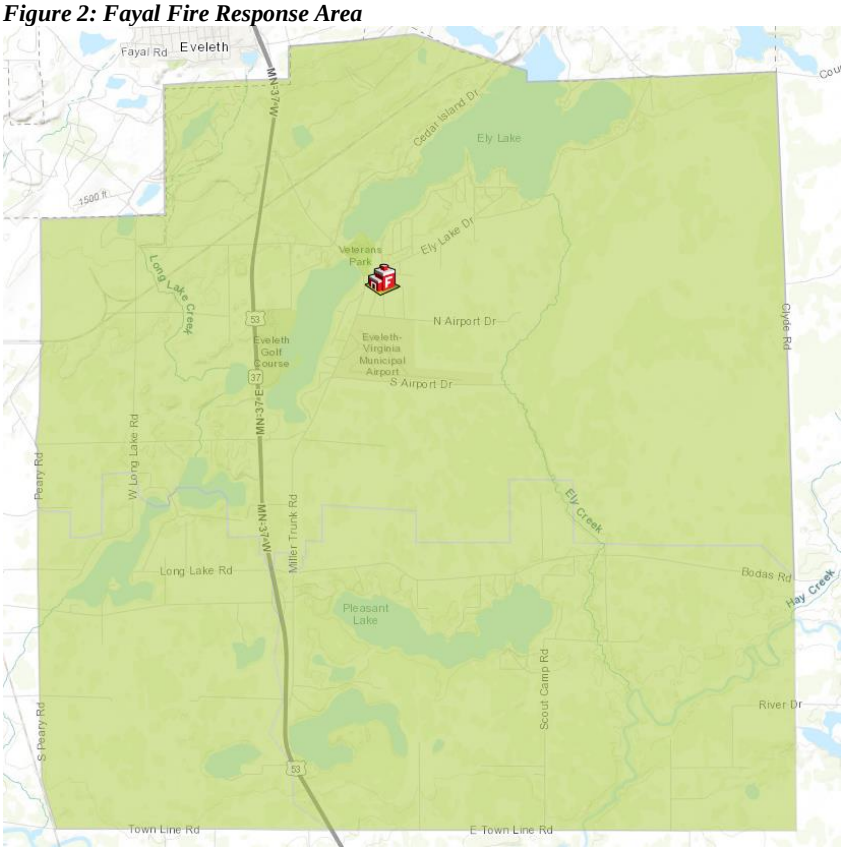
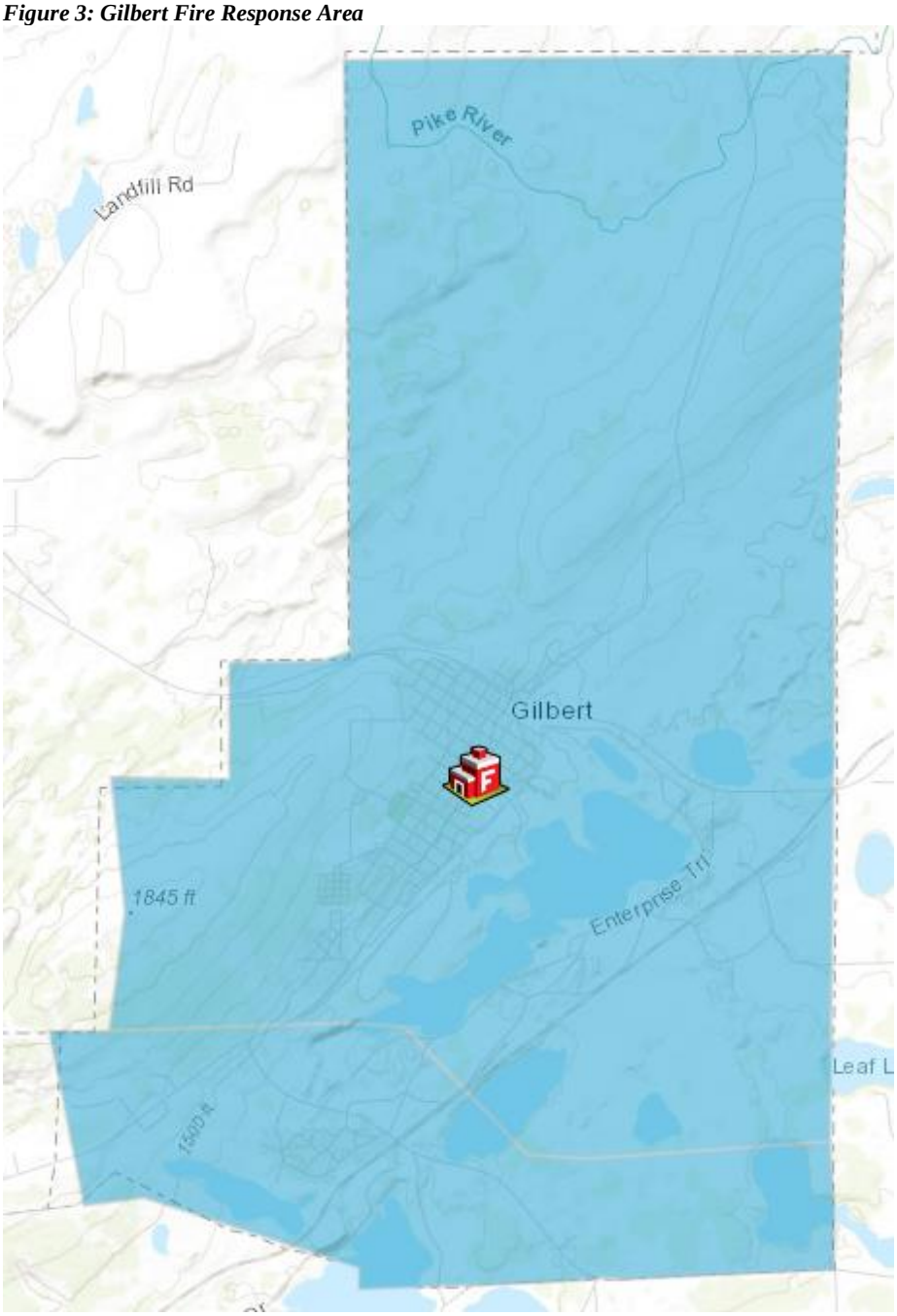


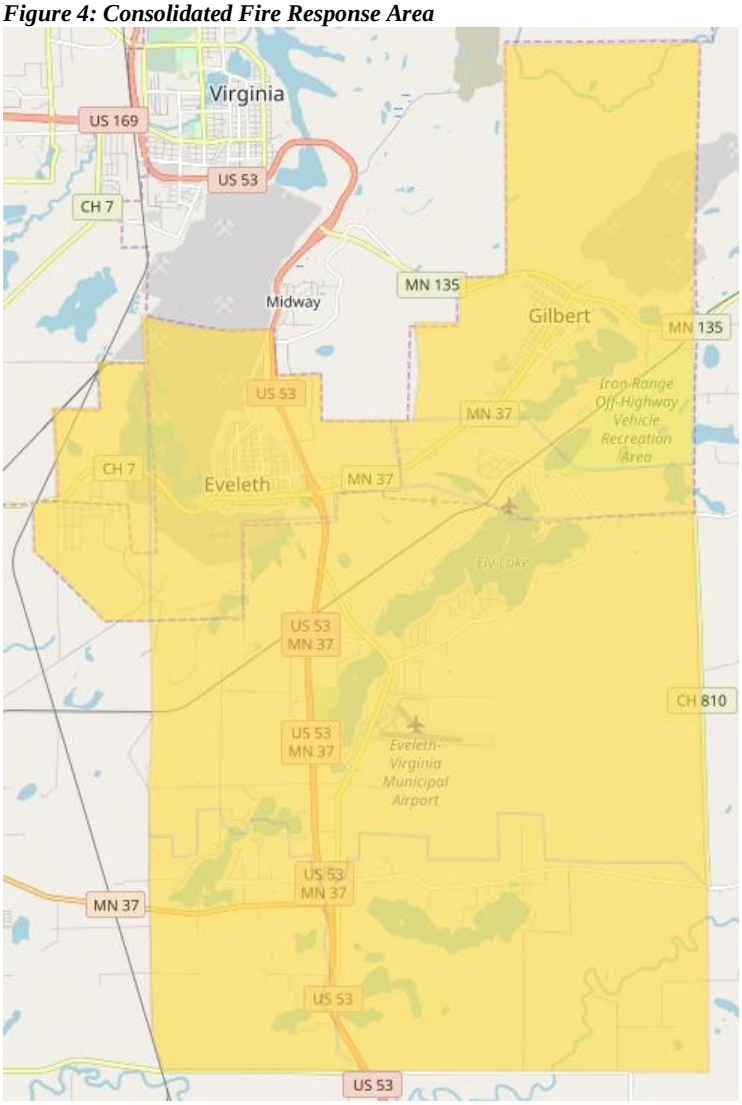
Figure 3: Gilbert Fire Response Area



If three existing fire departments were consolidated into one, the overall response area would consist of approximately 56 square miles with a combined resident population of approximately 7,600.

The following figure represents the geographic area of a single fire district.

Figure 4: Consolidated Fire Response Area



When someone dials 911, they expect competent and trained personnel to respond in an expedient manner. In fact, in the consultants' experience, many residents may be unaware that their local fire department is unstaffed and reliant on volunteers who do receive minimum reimbursement give of their time to respond and help their fellow neighbor. However, when the 911 system is activated, each fire department has a duty to act and respond safely and expediently.

In full-time career fire departments, staff are in-station and are able to leave the fire station immediately upon receiving notification form dispatch. In volunteer fire departments, personnel must respond from home or work, to the fire station, gather their equipment, and then respond to the call for service. A spatial analysis was conducted to identify a projected five-minute travel time once the fire apparatus leaves the fire station. The spatial analysis does not account for the time elapsed from when the fire department is notified of an emergency to when personnel arrive at the fire station.

Figure 5: Eveleth Fire Department – Five-minute Travel Time

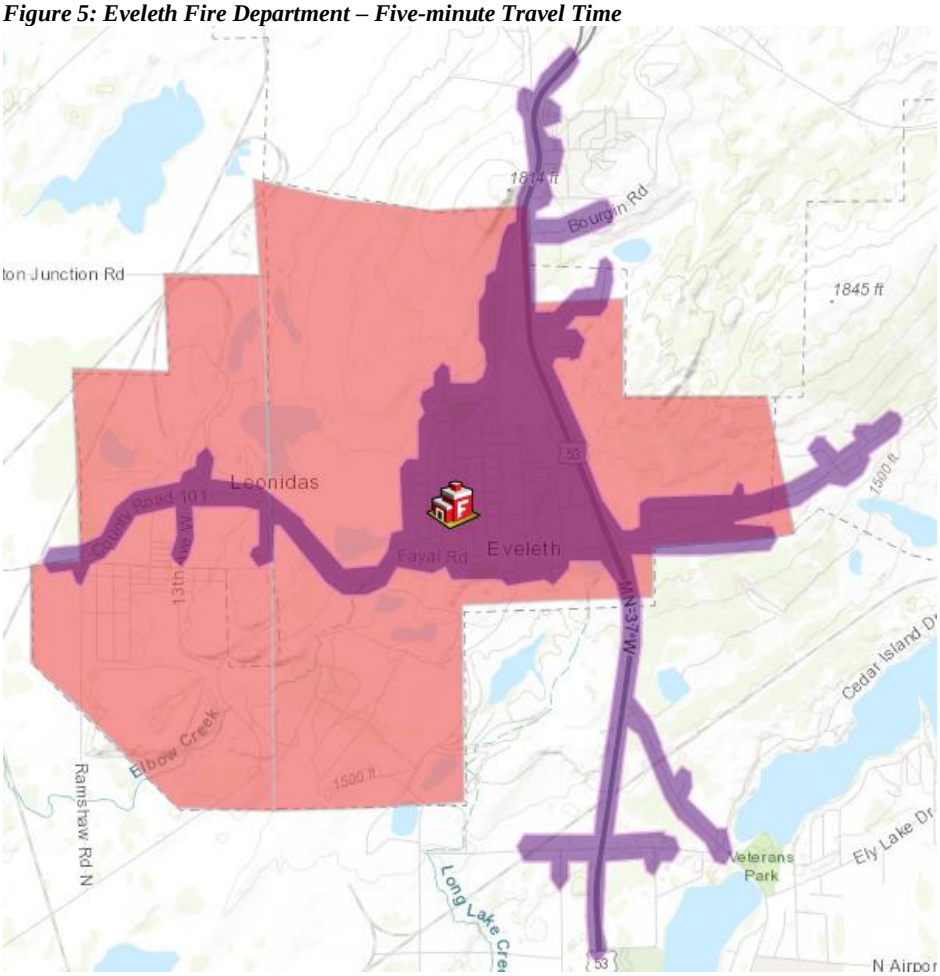


Figure 6: Fayal Fire Department – Five Minute Travel Time

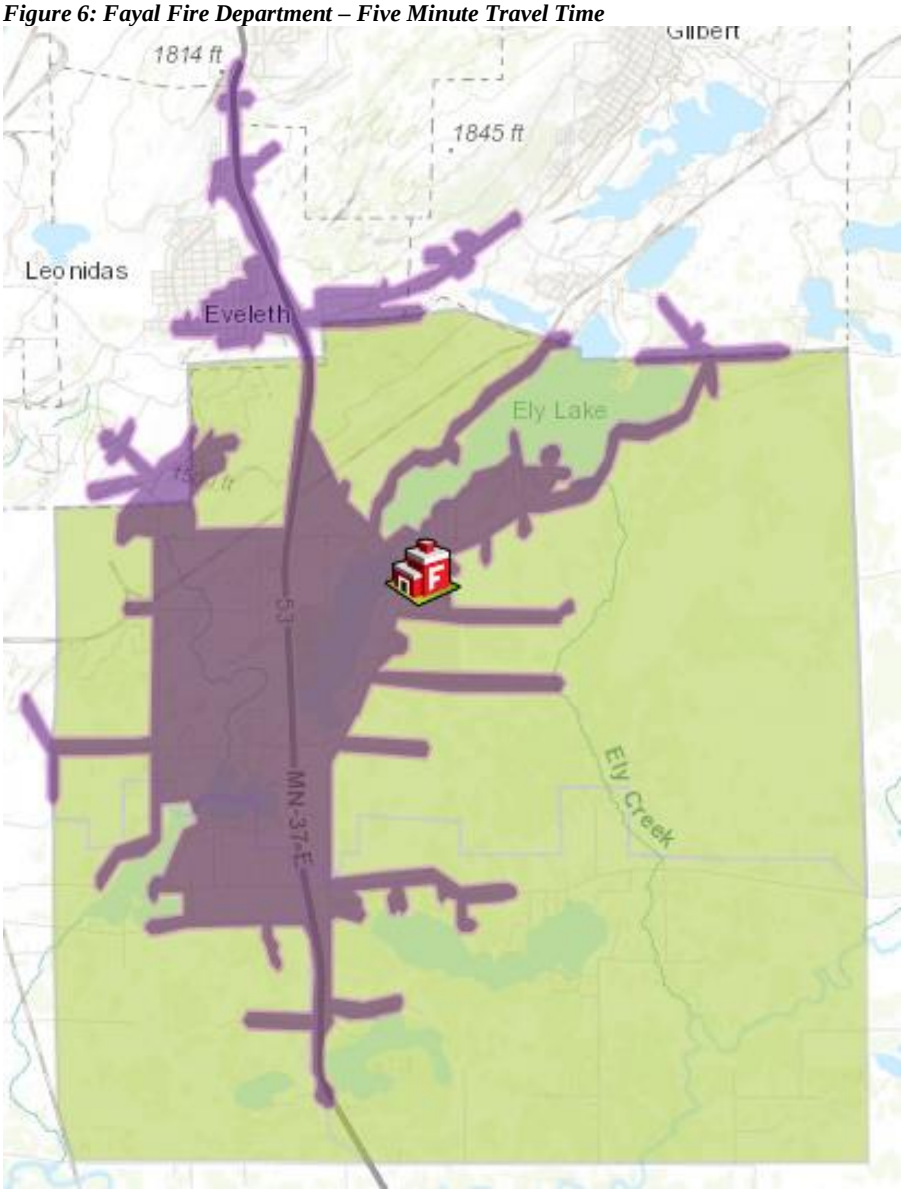
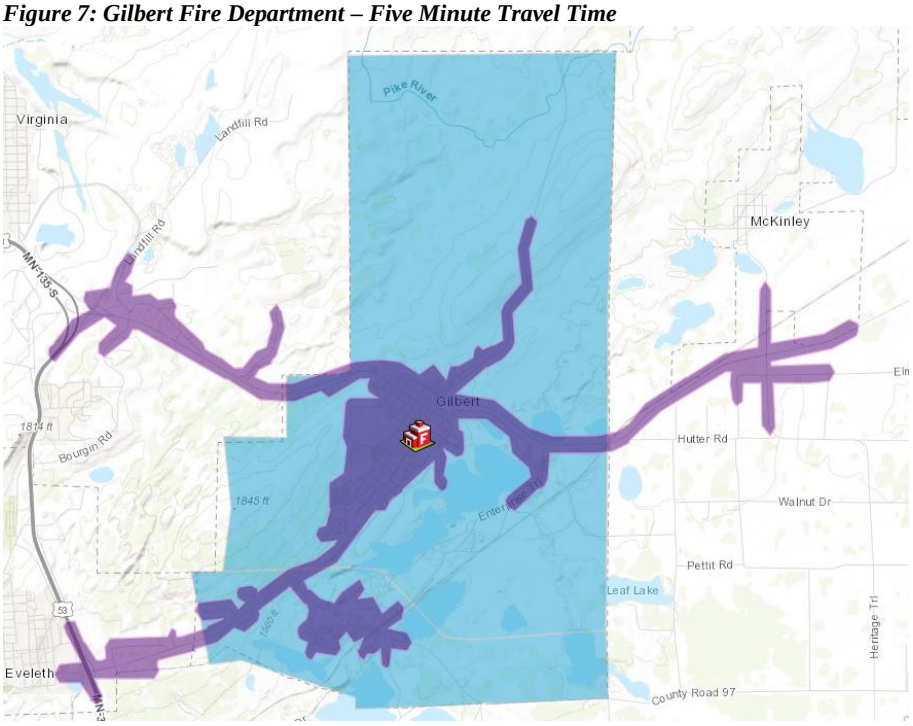


Figure 7: Gilbert Fire Department – Five Minute Travel Time



The preceding figures are intended to demonstrate how each department currently operates at the time this report was written. Future opportunities and potential efficiencies in a post-consolidated setting are discussed in subsequent sections of this study.

At the time of this study, the three participating municipalities showed an interest in examining greater shared services.

Community Overview and Governance

City of Eveleth

The City of Eveleth was incorporated in 1902 in St. Louis County, Minnesota, following certified platted status as a village in 1893. The City was named for Erwin Eveleth after he scouted the vast resources of white pine forests in the area. In the mid-1890's, ore was discovered beneath the City which resulted in a population boom between 1900 and 1910. After the higher-grade hematite ore reserves were depleted, area mines eventually switched over to mining lower-grade taconite ore, which provides the major local industry in the area. The City's economic activity saw a peak during World War II and has declined since. Eveleth's population, according to the United States Census Bureau was 3,718 as of 2010, with a current projected population of 3,685.

The City government consists of an elected mayor and four at-large council positions. The day to day operations of the City are overseen by team of managers including: City Administrator, Police Chief, and Director of Public Works. Eveleth's estimated median household income for 2016 was $40,472 while estimated median home values were $78,726.

Township of Fayal

The Town of Fayal was organized in 1896 in St. Louis County, Minnesota by David Adams when ore was sourced in Fayal. The Township was named for Fayal Island, located in the Azores. A petition was circulated by residents of the area to organize the township and an election was held in February 1896, officially cementing Fayal's future. Similar to other surrounding communities, Fayal's major source of industry involves taconite ore mining. Fayal's population, according to the United States Census Bureau was 1,809 as of 2010, with a current projected population of 1,787.

The Town government consists of an elected chair and four at-large supervisor positions. The day to day operations of the Town are overseen by an appointed Town Clerk. Fayal's estimated

median household income for 2016 was $50,665 while estimated median home values were $78,056.

City of Gilbert

The City of Gilbert has an interesting history. First organized as the Village of Sparta in 1896, ore was sourced beneath the ground and the village had to move to clear a path for mining. After the village moved, it took the name of the nearest group of mines – Gilbert. The City was organized in 1909 in St. Louis County, Minnesota after a lengthy court battle between the Pitt Iron Company and local elected officials. Similar to other surrounding communities, Gilbert's major source of industry involves taconite ore mining. Gilbert's population, according to the United States Census Bureau was 1,799 as of 2010, with a current projected population of 1,734.

The City government consists of an elected mayor and four at-large council positions. The day to day operations of the City are overseen by an appointed City Clerk. Gilbert's estimated median household income for 2016 was $48,604 while estimated median home values were $93,225.

Applicable to All Participating Fire Departments

This section of the study contains information that pertain to all three communities and their respective fire departments.

National Standards

It is important to discuss existing national standards that influence the modern fire service organization prior to evaluating or considering future needs by either the City of Eveleth, Town of Fayal, or City of Gilbert. The implications of national standards to each respective department can only be determined by those who govern each organization, as most of the standards are not mandatory.

National Fire Protection Association (NFPA)

Non-mandatory

The National Fire Protection Association (NFPA) is a nonprofit organization that creates and maintains private, copyrighted standards and codes for usage and adoption by local governments. NFPA was formed in 1896 by a group of insurance firms whose mission was to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes, standards, research, training, and education. Today, NFPA members include more than 60,000 individuals representing nearly 100 nations.

NFPA is responsible for 300 codes and standards designed to minimize the risk and effects of fire by establishing criteria for building, processing, design, service, and installation all over the world. NFPA has more than 250 technical codes and standards development committees are comprised of over 9,000 volunteer seats.

Source: NFPA website/overview

In 1999, two separate standards were created and later adopted by the NFPA. The two standards are **NFPA 1710** (Organization and Development of Fire Suppression, Emergency Medical Operations, and Special Operations to the Public by **Career** Fire Departments), and a sister

standard **NFPA 1720** (Organization and Development of Fire Suppression, Emergency Medical Operations, and Special Operations to the Public by **Volunteer/Paid-On-Call** Fire Departments).

The determination of whether a fire/EMS organization falls under the standards of NFPA 1710 or 1720 is not dependent on the number of members who are career versus paid-on-call. Rather, the determination is made by the status (career or paid-on-call) of those that make the decisions. Therefore, inasmuch as none of the three fire departments have any career employees and the membership is entirely paid-on-call, NFPA 1720 standards would apply to the departments.

There remains much disagreement as to the meaning of the words "codes and standards" in the fire service profession.

NFPA defines a **Code** as:

> *"A standard that is an extensive compilation of provisions covering broad subject matter or that is suitable for adoption into law independently of other codes and standards".*
>
> A model, a set of rules that knowledgeable people recommend for others to follow. It is not a law, but can be adopted into law.

NFPA defines a **Standard** as:

> *"A document, the main text of which contains only requirements and which is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Non-mandatory provisions shall be located in an appendix or annex, footnote, or fine-print note and are not to be considered a part of the requirements of a standard".*
>
> Being more detailed elaboration, standards are the nuts and bolts of a code.

The difference between a code and a standard is that a code tells you ***what*** you need to do, and a standard tells you ***how*** to do it.

Source: NFPA Glossary of Terms 2016 edition

The Fire Chiefs and the departments they command are ultimately responsible for providing high caliber fire protection to their residents. Minnesota statutes and enabling legislation give the

elected officials wide latitude to organize and provide for fire protection in the State. Minnesota Statute 412.221 gives Cities the power to establish a fire department, while Minnesota Statute 365.20 grants Towns the power to do the same via the electors. There is nothing in the Statutes that appears to make fire protection compulsory. How each City or Town chooses to provide fire protection, the level of protection reflects the quality of life standards for the community.

Special Interest to Authority Having Jurisdiction (AHJ)

What should be of special interest to the Cities, Town, and Departments is Chapter 4 of NFPA 1720 (2014 edition):

Chapter 4 Organization, Operation, and Deployment

4.1 Fire Suppression Organization
4.2 Community Risk Management
4.3 Staffing and Deployment
4.4 Reporting Requirements
4.5 Fire Suppression Operations
4.6 Initial Fire-Fighting Operations
4.7 Sustained Fire-Fighting Operations
4.8 Intercommunity Organization
4.9 Emergency Medical Services (EMS)
4.10 Special Operations

4.4.3 Quadrennial Report. The fire department shall provide the Authority Having Jurisdiction (AHJ) with a written report, quadrennially, which shall be based on the annual evaluation required by 4.4.2.

4.4.3.2 This report shall explain the predictable consequences.

Staffing and Response Times

NFPA 1720 standards are much less restrictive than the NFPA 1710 standards. However, in the 2014 NFPA 1720 edition, the standards include staffing and response time standards as shown in the table below:

Table 1: NFPA 1720 Staffing and Response Time

Demand Zone[a]	Demographics	Minimum Staff to Respond[b]	Response Times (minutes)[c]	Meets Objective (%)
Urban Area	>1000 /mi^2	15	9	90
Suburban Area	500-1000/mi^2	10	10	80
Rural Area	<500/mi^2	6	14	80
Remote Area	Travel Distance ≥ 8 miles	4	Dependent on Travel Distance	90
Special Risk	Determined by AHJ	Determined by AHJ Based on Risk	Determined by AHJ	90
NFPA 1720: 4.3.2 Staffing and Response Time (2014 Edition)				

[a] *jurisdiction can have more than one demand zone*
[b] *Minimum staffing includes members responding from the AHJ department and automatic aid*
[c] *Response time begins upon completion of the dispatch notification and ends at the time interval shown in the table.*

If one were accepting the NFPA definition, it would appear that all standards listed in any NFPA code other than in the appendixes, are in fact mandatory. Such would be the case if a governing body were to adopt the code in which the standard is listed. However, governing bodies are not required to adopt the NFPA codes; whereas, many view the NFPA terms, codes and standards as a benchmark by which to judge against.

The understanding of the significances of NFPA codes and standards becomes more complicated in the event a firefighter might be seriously injured or killed in the line of duty. In these events, NFPA codes have the effect of a double-edged sword; the fire department is not required to meet them, but the fire department would most likely be judged against these standards by a host of investigating agencies.

Therefore, it is advantageous for everyone in a decision-making position to become familiar with NFPA codes and standards. Leadership's decisions pertaining to resources and the deployment of those resources should be based on knowledge of current industry standards as outlined by NFPA.

Recommendation – NFPA 1720

- *The Cities/Township should not adopt NFPA 1720 standard. Adoption would include the adoption of all OSHA and NFPA standards by reference included in the document. However, a plan should be developed to meet as many NFPA 1720 standards as possible in the future.* ***Priority 5***

Recommendation – Quadrennial Report

- *The department leadership must ensure they meet the requirements of the quadrennial report, as outlined in NFPA 1720, Chapter 4 and begin to identify deficiencies within the department and the strategic plan with which to overcome these deficiencies.* ***Priority 3***

- *The department quadrennial report outlined in NFPA 1720 should define demand zones and/or circumstances in which the requirements of the standard are not being met.* ***Priority 4***

- *The quadrennial report should explain the predictable consequences of identified deficiencies and address steps within the department's strategic plan necessary to achieve compliance.* ***Priority 4***

Occupational Safety and Health Administration (OSHA)

Mandatory

OSHA states that "once fire fighters begin the interior attack on an interior structural fire, the atmosphere is assumed to be "Immediately Dangerous to Life or Health" (IDLH) and section (g) (4) of OSHA's Respiratory Protection Standard, 29, CFR 1910.134 [**two-in/two-out**] applies." OSHA defines interior structural firefighting "as the physical activity of fire suppression, rescue, or both inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage." This rule is commonly referred to as the **"two-in/two-out" rule**, which is OSHA's mandatory requirement for interior firefighting.

OSHA requires that all workers engaged in interior structural firefighting operations beyond the incipient stage use SCBA and work in teams of two or more. [29 CFR 1910.134(g) (4) (I)] Fire fighters operating in the interior of the structure must operate in a buddy system and maintain voice or visual contact with one another at all times. This assists in assuring accountability within the team. [29 CFR 1910.134(g) (4) (I)]

Rapid Intervention Crew (RIC) Team

OSHA requires at least one team of two or more properly equipped and trained fire fighters are present outside the structure before any team(s) of fire fighters enters the structural fire. This requirement is intended to assure that the team outside the structure has the training, clothing, and equipment to protect them and, if necessary, safely and effectively rescue fire fighters inside the structure. For high-rise operations, the team(s) would be staged below the IDLH atmosphere. [29 CFR 1910.134(g) (3) (iii)]

OSHA requires that one of the two outside person's function is to account for and, if necessary, initiate a fire fighter rescue. Aside from this individual dedicated to tracking interior personnel, the other designated person(s) is permitted to take on other roles, such as incident commander in charge of the emergency incident, safety officer, or equipment operator. However, the other designated outside person(s) cannot be assigned tasks that are critical to the safety and health of any other employee working at the incident.

Any task that the outside fire fighter(s) performs while in RIC, standby rescue status, must not interfere with the responsibility to account for those individuals in the hazard area. Any task, evolution, duty, or function being performed by the standby individual(s) must be such that the work can be abandoned, without placing any employee at additional risk, if rescue or other assistance is needed. [29 CFR 1910.134(g) (4) (Note 1)] Any entry into an interior structural fire beyond the incipient stage, regardless of the reason, must be made in teams of two or more individuals. [29 CFR 1910.134(g) (4) (I)].

Recommendation – OSHA

- *The fire department leadership must ensure that the OSHA "two-in/two-out" rule is practiced on all structure fires.* ***Priority 1***

Insurance Service Offices, Inc. (ISO)

Non-mandatory

The Insurance Services Office, Inc. (ISO) publishes and utilizes the Fire Suppression Rating Schedule (FSRS) to "review available public fire suppression facilities and to develop a Public Protection Classification (PPC) for insurance purposes."

Many insurance companies utilize this rating system to establish premium schedules for fire insurance. Communities with a lower rating can generally expect to have lower fire insurance premiums than those with higher ratings, thus creating an incentive for the communities' investment in fire protection. However, insurance rates are often driven by a competitive market between insurance companies, with ISO having less significances.

ISO Rating Factors

The classification of the fire protection assigned to a community is based on four categories:

- Fire Department (50 percent)
- Water Supply (40 percent)
- Emergency Communication (10 percent)
- Community Risk Reduction (up to 5.5-point reduction)

The Community Risk Reduction section of the FSRS offers a maximum of 5.5 points, resulting in 105.5 total points available in the FSRS. The inclusion of this section for "extra points" allows recognition for those communities that employ effective fire prevention practices, without unduly affecting those who have not yet adopted such measures. The addition of Community Risk Reduction gives incentives to those communities who strive proactively to reduce fire severity through a structured program of fire prevention activities.

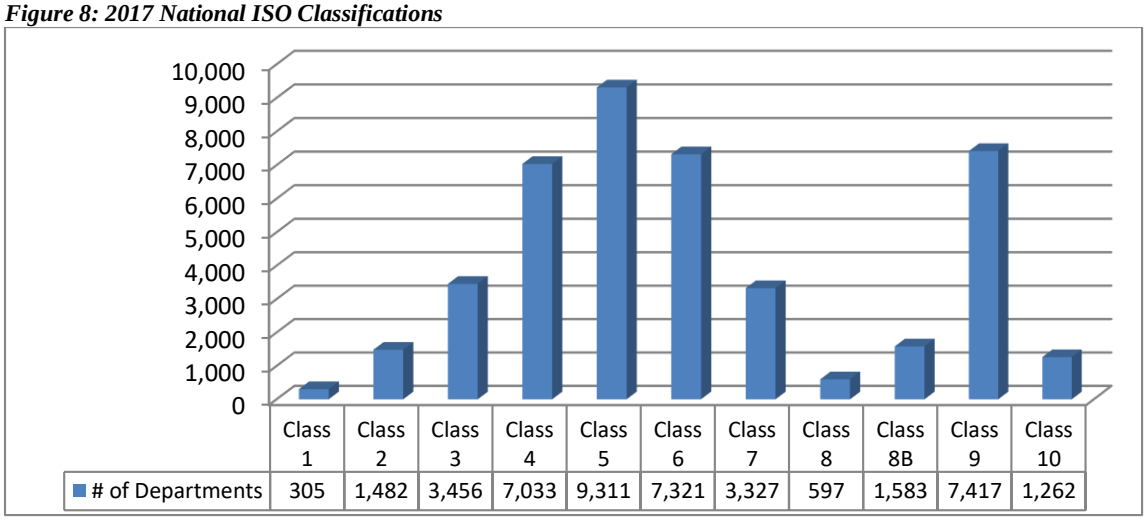
The areas of community risk reduction evaluated in this section include:

- Fire Prevention
- Fire Safety Education
- Fire Investigation

The total points are compared to a chart with ten classes, each representing about 10 points, for a total of 100 points, excluding the influence of Community Risk Reduction. Class 1 is the highest, and Class 10 is the lowest.

The figure below illustrates the classification category and number of departments with the corresponding ISO class number on a national basis 2018 data:

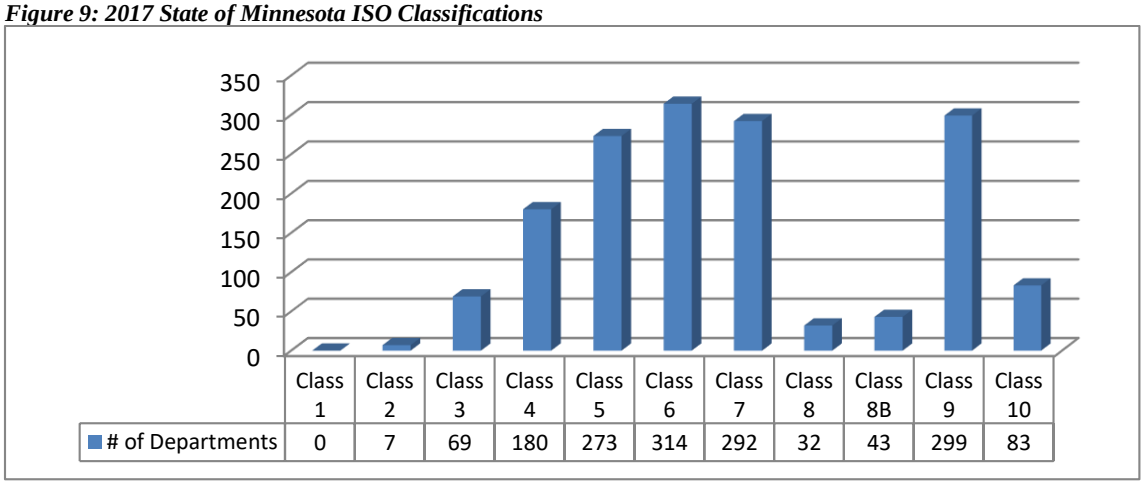
Figure 8: 2017 National ISO Classifications



	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 8B	Class 9	Class 10
# of Departments	305	1,482	3,456	7,033	9,311	7,321	3,327	597	1,583	7,417	1,262

In the state of Minnesota, 2018 fire department ratings were classified by ISO in 2018 as illustrated below.

Figure 9: 2017 State of Minnesota ISO Classifications



	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 8B	Class 9	Class 10
# of Departments	0	7	69	180	273	314	292	32	43	299	83

Paragraph 560 of the PPC schedule states, “The built-upon area of the municipality should have a first due engine company within 1½ miles and a ladder-service company within 2½ miles.” This distance is recognized by ISO as an acceptable level of fire protection.

Public Protection Classification (PPC)

The summary of the ISO PPC classifications is illustrated in the table below:

Table 2: Departments PPC Classification

FD	ISO	Year		Dispatch	Fire Department	Water
Eveleth	4/4X	May-18		7.32 of 10	28.21 of 50	31.00 of 40
Fayal	5/5X	Jun-14		7.72 of 10	25.11 of 50	23.36 of 40
Gilbert	6/6X	Sep-14		7.72 of 10	15.92 of 50	25.99 of 40

Individual

Departments PPC Scores

Inasmuch as all three department utilize the same Public Safety Answering Point (PSAP) aka: Dispatch, the Emergency Reporting scores would all be the same; however, the fire departments 50% scores and water supply 40% scores would be reflections of the individual departments and municipality. The table below illustrates the PPC scores for each department:

Table 3: Departments Individual PPC Scores

	Credit Earned			
FSRS Item	**Eveleth**	**Fayal**	**Gilbert**	**Credit Available**
Emergency Reporting				
Credit for Emergency Reporting	2.40	2.40	2.40	3.00
Credit for Telecommunicators	3.12	3.52	3.52	4.00
Credit for Dispatch Circuits	1.80	1.80	1.80	3.00
Credit for Receiving & Handling Fire Alarms	***7.32***	***7.72***	***7.72***	***10.00***
Fire Department				
Credit for Engine Companies	3.79	3.05	1.91	6.00
Credit for Reserve Pumpers	0.00	0.00	0.03	0.50
Credit for Pumper Capacity	2.75	3.00	2.00	3.00

	Credit Earned			
FSRS Item	**Eveleth**	**Fayal**	**Gilbert**	**Credit Available**
Credit for Ladder Service	1.26	2.38	2.00	3.00
Credit for Reserve Ladder & Service Trucks	0.00	0.00	0.97	4.00
Credit for Deployment Analysis	5.81	5.43	3.84	10.00
Credit for Company Personnel	9.31	7.57	6.55	15.00
Credit for Training	3.29	1.68	0.62	9.00
Credit for Operational Considerations	2.00	2.00	0.00	2.00
Credit for Fire Department	***28.21***	***25.11***	***15.92***	***50.00***
Water Supply				
Credit for Supply System	25.66	18.00	24.52	30.00
Credit for Hydrants	2.94	2.96	2.34	3.00
Credit for Inspection & Flow Testing	2.40	2.40	3.20	7.00
Credit for Water Supply	***31.00***	***23.36***	***25.99***	***40.00***
Divergence	**-4.22**	**-1.64**	**-6.63**	
Community Risk Reduction	**3.30**	**1.95**	**1.85**	**5.50**
Total Credit	**65.61**	**56.50**	**44.85**	**105.50**

The value of the ISO rating to a community continues to be questionable as a determining factor in a community's level of fire protection. The ISO purpose is to determine a fire insurance classification, which may or may not be used by insurance companies in the calculation of property insurance premiums for an area. ISO only rates those pieces of the fire protection program they feel are important to assign insurance rates. There is limited value in attempting to assess a fire department by solely utilizing the community's ISO rating; rather, the Commission on Fire Accreditation International (CFAI) accreditation process far exceeds any other type of instrument in measuring a service provider against defined benchmarks.

ISO Consolidation Value

Although this report is limited to the fire department's 50% evaluations there might be opportunities for partnership within the water supply 40% evaluations amongst the

municipalities. The nine sub-categories within the fire departments categories (listed in the table above) suggest opportunities for obvious partnerships and advantage of shared resources. A description and discussion of these opportunities will be included in the Consolidation Opportunity section of this report.

Center for Public Safety Excellence (CPSE)

Non-mandatory

A better evaluation tool exists today. The International Association of Fire Chiefs (IAFC) has developed a program that measures the quality and performance of a particular fire service agency and will award national accreditation to those departments that pass the stringent criteria. The Center for Public Safety Excellence (CPSE), the umbrella organization, utilizes a process known as the Commission on Fire Accreditation International (CFAI). It specifies more than 250 performance indicators, including 70+ core competencies against which a fire agency can measure itself.

The CFAI is a structured process for documenting the levels of fire safety, fire prevention, fire safety education, and fire suppression services currently provided, and for determining the future level of service the department should provide. The accreditation process asks the community to determine and document whether its fire protection services are appropriate, adequate, and effective.

The advantage to the CFAI accreditation program lies in the process itself. The department must examine every aspect of its existence and determine the most cost-effective means of providing service. This program requires a time commitment and effort on the part of the fire administration. If at some future point the department wishes to seek accreditation, it is recommended that a single individual be assigned full-time for the completion of this project. Although the consultants do not recommend that any of the departments begin the accreditation process, it is suggested that the administration look at the performance indicators or benchmarks

set up for the evaluation process to use as a guide while developing policies and procedures for their department

Recommendation – CFAI Accreditation

- *The fire department should not seek international accreditation (CFAI) at this juncture; rather, the CFAI performance indicators and core competencies should be utilized as a model for quality and a benchmark for opportunities.* ***Priority 5***

Emergency Activities

This section highlights the emergency response data for the departments for the period of 2015 – 2017. The three departments would benefit from using the same data management system and format inasmuch as there were difficulties in obtaining comparable data. The prime function of a fire department is to respond to and mitigate emergencies that arise within their jurisdiction. Although this activity only takes up a small percentage of the department's overall time, its state of readiness must always be at maximum levels in order to optimally provide an efficient and safe level of service. Relevant, detailed, and concise data pertaining to the fire department is essential in providing archival documentation of the fire department's preparedness for, and response to, emergency situations. As in any report of this nature, the recommendations are based on data provided by the client, interviews, and on-site observations; in the case of the departments, their data could be improved from the implementation of a quality control program.

Why Retrieve Emergency Response Data?

One of the main challenges fire/EMS leadership face is to identify the need for resources that will provide the highest level of service and safety for those who receive and provide such service, as well as to justify the fiscal resources needed. Good data can be very useful through study and analysis by fire chiefs and department supervisors to help implement, justify and support a variety of leadership/management endeavors including, but not limited to:

- Fiscal management
- Staffing
- Resource deployment
- Budgeting
- Purchasing
- Strategic planning
- Program development/implementation
- Program oversight/assessment
- Assuring competency
- Assuring cost-effective/efficient services
- Communication with governing board(s)

Leadership can quantify the above objectives through good data. The International Association of Fire Chiefs (IAFC) defines good data as data that meets three components:

Good Data is Relevant – you are collecting information on the things that matter, like response times and number of calls for service.

Good Data is Accurate – your processes for data collection must be consistent and trustworthy.

Good Data is Reliable – a measurement from one company is equivalent to the same measurement from another company. You don't have to "adjust your data to accommodate known distortions".

Source: International Association of Fire Chiefs: Weathering the Economic Storm, December 2008

Governing boards traditionally ask for a summary of activities on a monthly basis; it is essential that the information be relevant, accurate, and reliable. When conflicting data is discovered, in many cases, it goes beyond a couple of numbers that don't match, which leads governing officials to begin to question all material/information and eventually those in leadership. In short, activity data builds trust and credibility.

Therefore, it should not be unreasonable to provide board members, community members, or even department members with clear, concise, and relevant fire department reports based on correct data.

Ten Year Emergency Activity Totals

The departments provided call totals for the last ten years by sourcing data from their data management system. The figure below represents the ten-year record of total incidents and reflects an overall increase in call volume for each department.

Table 4: Departments Ten Year Total Calls Change

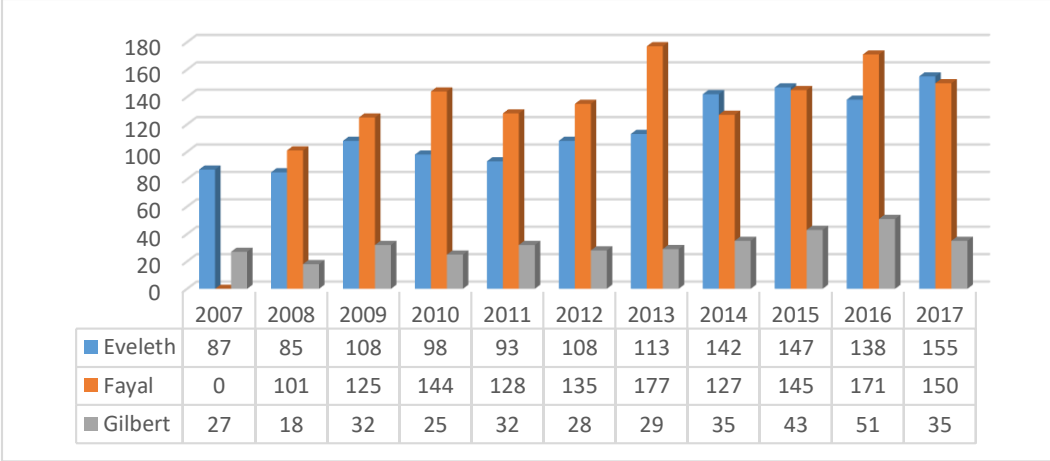
Eveleth Fire Department			*Fayal Fire Department*			*Gilbert Fire Department*		
Year	**Total Calls**	**% + or -**	**Year**	**Total Calls**	**% + or -**	**Year**	**Total Calls**	**% + or -**
2007	87		2007	101		2007	27	
2008	85	-2.3%	2008	101	0.0%	2008	18	-33.3%

Eveleth Fire Department		
2009	108	27.1%
2010	98	-9.3%
2011	93	-5.1%
2012	108	16.1%
2013	113	4.6%
2014	142	25.7%
2015	147	3.5%
2016	138	-6.1%
2017	155	12.3%
Average Increase		***6.7%***

Fayal Fire Department		
2009	125	23.8%
2010	144	15.2%
2011	128	-11.1%
2012	135	5.5%
2013	177	31.1%
2014	127	-28.4%
2015	145	14.2%
2016	171	17.9%
2017	150	-12.3%
Average Increase		**6.2%**

Gilbert Fire Department		
2009	32	77.8%
2010	25	-21.9%
2011	32	28.0%
2012	28	-12.5%
2013	29	3.6%
2014	35	20.7%
2015	43	22.9%
2016	51	18.6%
2017	35	-31.3%
Average Increase		***7.3%***

Figure 10: Ten Year Emergency Activities



Incident by Nature

The departments participate in the National Fire Incident Reporting System (NFIRS) fire/EMS program in reporting all incidents through the Minnesota State Fire Marshal (Division of Minnesota Department of Public Safety), under authority of the United States Fire Administration (USFA).

NFIRS categorizes incident types into nine categories with each category having a series number with multiple sub-categories under each main series number. The USFA collects and analyzes NFIRS data from participating states to provide a legal record of fact, assist fire department

administrations in evaluating their fire and EMS effectiveness, and to collect data for use at the state and national levels.

The following table and figures reflect the 2015 - 2017 emergency activities of the departments utilizing the NFIRS series categories:

Table 5: Departments NFIRS Emergency Incidents

		Eveleth			% of		Fayal			% of		Gilbert			% of
Series	**NFIRS**	**2015**	**2016**	**2017**	**Total**		**2015**	**2016**	**2017**	**Total**		**2015**	**2016**	**2017**	**Total**
100	Fires	21	38	23	18.64%		55	60	48	35.51%		35	26	23	66.14%
200	Overpressure/Ruture/Explosion	0	1	2	0.65%		0	0	0	0.00%		0	0	0	0.00%
300	Rescue/EMS	9	8	22	8.50%		30	51	37	25.71%		0	11	3	11.02%
400	Hazardous Conditions	27	31	29	18.95%		15	22	16	11.55%		0	0	0	0.00%
500	Service Calls	8	4	4	3.49%		0	0	0	0.00%		0	7	6	10.24%
600	Good Intent	4	2	1	1.53%		0	0	0	0.00%		0	0	0	0.00%
700	False Alarm/False Calls	75	52	70	42.92%		30	22	26	16.99%		6	7	3	12.60%
800	Severe Weather	0	2	1	0.65%		0	0	0	0.00%		0	0	0	0.00%
900	Special Incident	3	0	3	1.31%		10	23	14	10.24%		0	0	0	0.00%
	Total	147	138	155			140	178	141			41	51	35	

**The City of Eveleth were very adamant they <u>do not</u> provide EMS*

The table below illustrates the sub-categories for the NFIRS categories that are most often the highest percentage of total calls.

Table 6: NFIRS Sub-categories components

Series 100 – Fire

This category includes all incidents which include any type of fire.
The sub-categories are:

- Structure fire
- Fire in mobile property used as a fixed structure
- Mobile property (vehicle) fire
- Natural vegetation fire
- Outside rubbish fire
- Special outside fire
- Cultivated vegetation, crop fire
- Fire, other

Series 300 – Rescue/Emergency Medical Services

This category includes any type of rescue or EMS related emergency response.
The sub-categories are:

- Medical assist
- Emergency medical service incident

- Lock-in
- Search for lost person
- Extrication, rescue
- Water and ice-related rescue
- Electrical rescue
- Rescue or EMS standby
- Rescue, emergency medical service (EMS) incident, other

Series 600 – Good Intent Calls
NFIRS reporting is very subjective and the category of "Good Intent Calls" often is a catchall for incidents which are somewhat uncommon or are unclear as to which NFIRS category is most appropriate.
The sub-categories are:

- Dispatched and canceled enroute
- Wrong location, no emergency found
- Controlled burning
- Vicinity alarm
- Steam, other gas mistaken for smoke
- EMS call where party has been transported
- Haz Mat release investigation w/no Haz Mat found
- Good intent call, other

Series 700 – False Alarms/Calls
This category includes any type of reported emergency which ultimately was determined to be a false call.
The sub-categories are:

- Malicious, mischievous false alarm
- Bomb scare
- System or detector malfunction
- Unintentional system or detector operation (no fire)
- Biohazard scare
- False alarm and false call, other

In reviewing the departments NFIRS data, the category of Series 700 – False Alarms/Calls is of concern. The National NFIRS percentage for each category is illustrated in the table below:

Table 7: National NFIRS Data - 2017

Series	NFIRS	% of Total
100	Fires	4.7%
200	Overpressure/Rupture/Explosion	0.2%
300	Rescue/EMS	64.1%
400	Hazardous Conditions	3.7%
500	Service Calls	7.1%
600	Good Intent	10.5%
700	False Alarm/False Calls	8.7%
800	Severe Weather	0.1%
900	Special Incident	0.7%

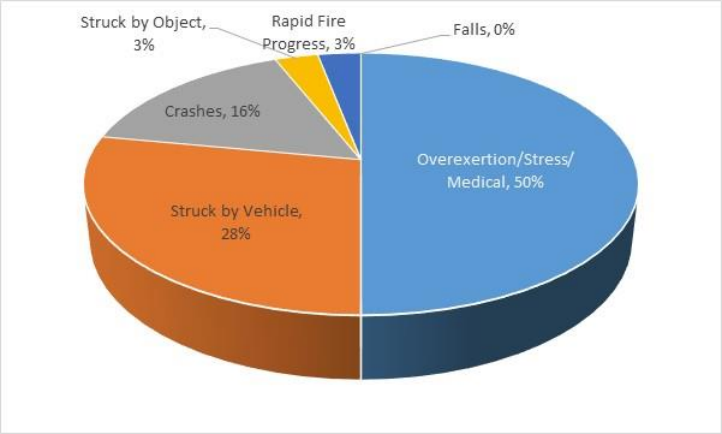
The False Alarm/Calls category for each department exceeds the National average and should be of significant concern as illustrated in the table below:

Table 8: Departments False Alarms/Calls

NFIRS Category		Eveleth	Fayal	Gilbert	National
700	False Alarm/Calls	42.92%	16.99%	12.60%	8.70%

False alarms are a drain on a department's resources, prevent personnel from responding to actual emergencies, and increase the chances for vehicle accidents. Not only does the reduction of false alarms reduce unnecessary emergency responses, it also is a significant safety factor for the municipalities as well as the service providers overall. Vehicle accidents (responding to or returning from) are the second leading cause of firefighter/EMT line-of-duty deaths as illustrated below:

Figure 11: Firefighter's Cause of Death



Source: NFPA FF Fatalities in US 2017

Simultaneous/Overlapping Incidents

The collection and review of data regarding simultaneous calls is advantageous to fire department leadership in determining resource deployment, staffing, budgeting, and planning. The term simultaneous incident is a term utilized by the consultants which refers to times when the fire department is handling an emergency situation and another unrelated emergency incident occurs, requiring immediate department response. Depending on the record management system utilized by a department, these incidents might be called overlapping, or back-to-back calls.

The significance of the amount and frequency of simultaneous incidents can result in increased response times or greater usage of mutual aid. There is no consensus in the industry as to an exact number when simultaneous incidents require additional resources. The consultants have found that in most studies, when simultaneous incidents reach between 15% to 20% of total incidents, greater emphasis must be placed on staffing.

Fire departments do not have the ability to "stack calls" as do police agencies who routinely prioritize calls and dispatch accordingly. With few exceptions, when 9-1-1 requests the fire department it is for an emergency – at least in the opinion of the caller.

If every piece of fire or EMS apparatus were available at its assigned location, every time a call for service was received, the fire department's reliability would be 100%. If, however, a call is received for a particular station/unit, but that station/unit is already committed to another incident, the next closest unit must respond from a different station or source. In this case, the substitute company may exceed the maximum prescribed response time.

As the number of emergency calls per day increase, the probability increases that the primary unit needed for response is already committed and a backup or mutual aid unit will need to be dispatched.

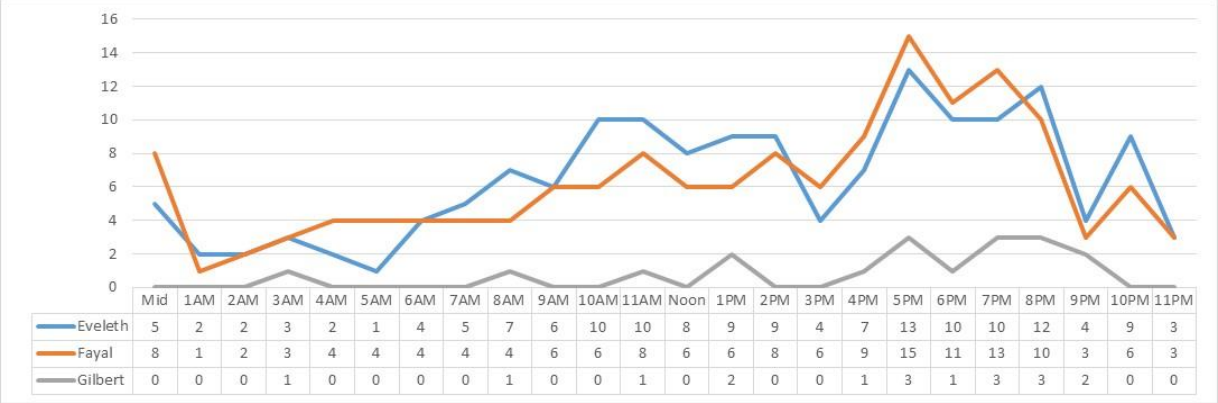
Departments – Simultaneous Call Data

No data provided by any department

Incidents by Time of Day

Fire Department leadership should be particularly interested in data which indicates when the Department is at its busiest for time of day, day of the week, and month. When a significant pattern is discovered that indicates the probability that emergency incidents will occur at a certain time, it allows the department to anticipate when personnel will be available and make contingency plans for when they know adequate personnel for emergency response might occur. The figure below illustrates the time of day for the three departments:

Figure 12: Incidents by Time of Day



	Mid	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM
Eveleth	5	2	2	3	2	1	4	5	7	6	10	10	8	9	9	4	7	13	10	10	12	4	9	3
Fayal	8	1	2	3	4	4	4	4	4	6	6	8	6	6	8	6	9	15	11	13	10	3	6	3
Gilbert	0	0	0	1	0	0	0	0	1	0	0	1	0	2	0	0	1	3	1	3	3	2	0	0

The trend in data regarding the call by time of day for the three-year study period follows the premise that most calls for service are during the daytime hours, or when most of the population is awake and active.

In most departments, incidents charted by time of day follow a pattern similar to a "bell curve." The least busy time of day is from midnight to early morning, peaking in the mid to late afternoon, and decreasing in the later evening hours. Although the least busy time of day is from mid-night to early morning, it is also when the highest number of civilian fire deaths occurs, due

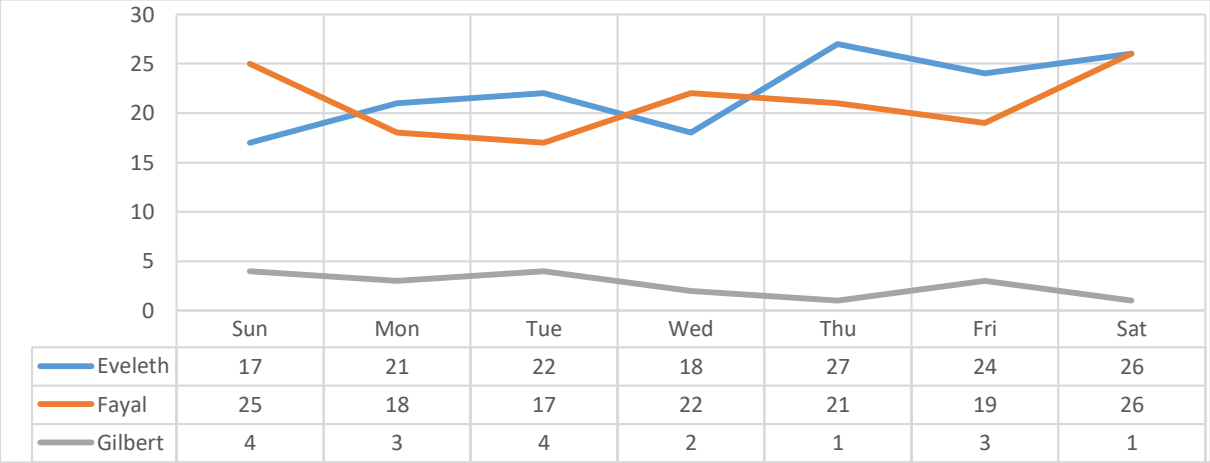
to the occupants sleeping. Those most at risk are the very young and old, who often are less able to escape and protect themselves.

Incidents by Day of the Week

Incidents reviewed by day of the week are another metric utilized by leadership to manage the resources of the organization. Coupled with time of day and perhaps incidents by month, this information could be of value if a pattern emerges suggesting staffing will be problematic.

The figure below illustrates calls by day of the week for the three departments:

Figure 13: Incidents by Day of the Week

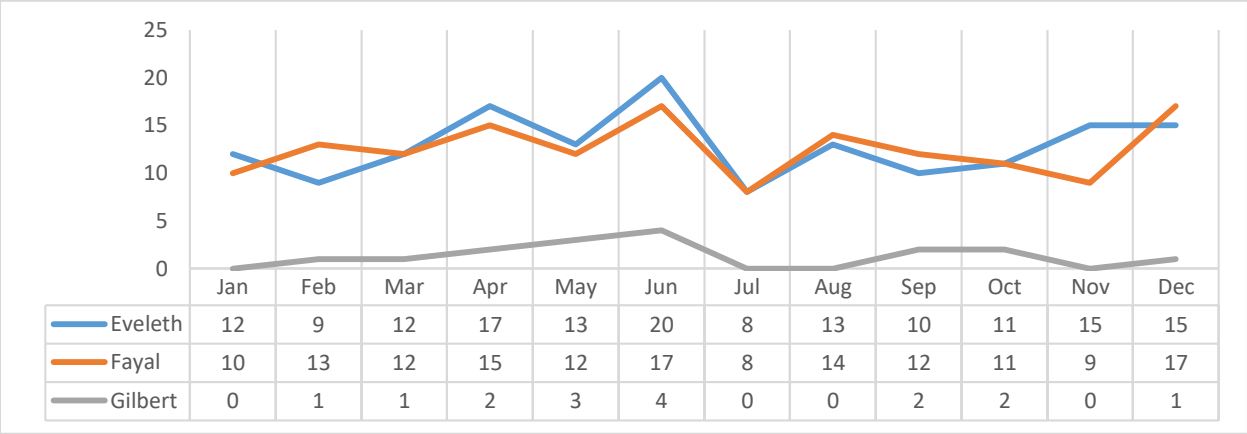


	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Eveleth	17	21	22	18	27	24	26
Fayal	25	18	17	22	21	19	26
Gilbert	4	3	4	2	1	3	1

Incidents by Month

Most Midwest states, with the exception of the most northern states that see peak activity during snow skiing season, find the summer months, especially when schools are on summer vacations, as their peak activity time. The incidents by month are illustrated in the figure below:

Figure 14: Incidents by Month



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Eveleth	12	9	12	17	13	20	8	13	10	11	15	15
Fayal	10	13	12	15	12	17	8	14	12	11	9	17
Gilbert	0	1	1	2	3	4	0	0	2	2	0	1

By averaging the three years, June through August were the busiest months for emergency incidents. The three-year average for calls by month showed no real remarkable spikes in calls for service. There are noted highs and lows, but no real identifiable trends to be addressed.

What is challenging for many fire departments is that volunteer/paid-on-calls seek the summer months as the peak time to request vacations, resulting in fire departments experiencing their minimal response to calls numbers during this time period.

Mutual/Automatic Aid

In some studies, the consultants have found that governing officials believe that requesting assistance from other communities on a routine basis will preclude them from having to add additional personnel, pay overtime, or provide more apparatus. This thinking is greatly flawed as the foundation of mutual and automatic aid is the reciprocity of services.

Mutual Aid

The philosophical concept of *mutual aid* is to offer assistance to a fire department upon a request made by a host district. The sole purpose is to give or receive assistance when all available resources—equipment or personnel—are depleted; and then on a limited basis. Generally, mutual aid is drawn upon during an emergency incident where a particular or specialized need

arises on a small to medium size incident that would not be expected as a lengthy or long-term incident.

Automatic Aid

Automatic aid differs from mutual aid in that it is a pre-determined agreement with another department to respond automatically when the host department receives a reported emergency or an alarm at a given location or area. This type of aid is utilized on a regular basis to supplement the host agency's initial response to the emergency with pre-determined apparatus, manpower, and chief officers, and is done so automatically.

Mutual Aid Box Alarm (MABAS)

The Mutual Aid Box Alarm System (MABAS) currently includes six Midwest states: Illinois, Wisconsin, Indiana, Michigan, Missouri, and Iowa. The MABAS system has been recognized as the "best practice" by the Department of Homeland Security, and is currently being considered as the model for inter-state mutual aid agreements. The concept behind MABAS is that a fire department develops an alarm card, which will indicate what apparatus/equipment and/or personnel they are requesting, who they are requesting it from, and what level (how much equipment) is desired prior to the actual emergency. The cards are designed to cover a generic situation and/or area of the response district. Different cards are designed for situations such as tanker box (requiring large amounts of water to be trucked in), mass casualty box, confined space box, hazardous material box, grass/brush fire box, etc.

MABAS divisions geographically span the states of Illinois, Wisconsin, Indiana, Missouri, Michigan, and the other states, i.e. Minnesota, Iowa, and Ohio, are considering joining.

Recommendation – MABAS

- *Fire department leadership should advocate for and work to implement MABAS throughout the State of Minnesota or identify MABAS best practices and adopt them in the local region.* ***Priority 5***

Public Safety Answering Point (aka Dispatch)

The St. Louis County dispatch center is a consolidated public safety dispatch facility, aka: Public Safety Answering Point (PSAP). The St. Louis County dispatch center dispatches police, fire, and EMS for 185 public safety agencies, including the Eveleth Fire Department, Fayal Fire Department, and Gilbert Fire Department.

The dispatch center is responsible for the entire 6,680 square mile area that encompasses St. Louis County and the nearly 200,000 residents that live within. The dispatch center is currently the centralized point of coordination for all county emergency warning services. The St. Louis County dispatch center provided all data referenced in this section. In 2017, the center answered 209,618 requests for assistance per year, of which 153,386 or 73% were emergency 9-1-1 calls. Of the 153,386 emergency calls for service answered, 94% were answered within ten (10) seconds.

The dispatch center currently operates with 6-8 telecommunicators per shift. All telecommunicators are trained to the Association of Public-Safety Communications Officials (APCO) Emergency Medical Dispatch (EMD) standards. The APCO EMD standards are based on the National Highway Traffic Safety Administration (NHSTA) National Standard Curriculum. Participants are required to complete a formal 40-hour telecommunicator course and maintain current cardiopulmonary resuscitation (CPR) training prior to taking the EMD course. APCO EMD certified telecommunicators must maintain 24 hours of continuing education every two years and pass a recertification exam. Certified EMD dispatchers are able to provide 9-1-1 callers with pre-arrival instructions prior to fire department or EMS arrival such as instructing bystanders how to perform CPR over the telephone.

PSAP Standards

9-1-1 Answering Times Standards

There are four agencies that have published standards for communication centers pertaining to 9-1-1 answering times: Federal Emergency Management Agency (FEMA), National Emergency

Number Association (NENA), National Fire Protection Association (NFPA), and the Associated Public-Safety Communications Officials (APCO).

FEMA

FEMA requires the National Incident Management System (NIMS) to utilize the National Fire Protection Association NFPA 1221 – 2016 edition as its standard for answering emergency calls. NFPA 1221 standard requires:

Installation, Maintenance, and use of Emergency Services Communications Systems

NFPA 7.4 Operating Procedures

7.4.1 95% of alarms received on emergency lines shall be answered within ***15 seconds***, 99% of alarms shall be answered within 40 seconds.

7.4.1.1 Compliance with 7.4.1 shall be evaluated monthly using data from the previous month.

7.7 Communications centers shall establish a quality assurance/improvement program to ensure the consistency and effectiveness of alarm processing.

National Emergency Number Association (NENA):

The NENA serves as the only professional organization solely focused on 9-1-1- policy, technology, operations, and education. NENA 56-005 June 2016 stated:

3.0 Call taking standards

3.1 Standard for answering 9-1-1 Calls. Ninety percent (90%) of all 9-1-1 calls arriving at the Public Safety Answering Point (PSAP) shall be answered within ***ten (10) seconds*** during the busy hour (the hour each day with the greatest call volume, as defined in the NENA Master Glossary 00-001). Ninety-five (95%) of all 9-1-1 calls should be answered within twenty (20) seconds.

3.2 Order of Answering Priority. It is the responsibility of on-duty Telecommunicators to answer all in-coming calls. All phone calls will be answered in order of priority. 1st priority will be the 9-1-1 and emergency 7/10-

digit phone lines; 2nd priority will be non-emergency lines and 3rd priority will be the administrative and/or internal phone lines

3.3 Standard Answering Protocol – 9-1-1 lines. All 9-1-1 lines at a primary Public Safety Answering Point (PSAP) shall be answered beginning with "9-1-1."

Associated Public-Safety Communications Officials (APCO)

APCO is an international organization of public safety communication professionals. The standards set by APCO are 90% of the incoming E9-1-1 calls are answered in *ten (10) seconds* or less. APCO by referencing the NENA 3.0 standard.

Phone Activities

There are 10 total wireline and wireless trunk phone lines into the PSAP all with rollover capability when busy. The wireless trunks are Phase II capable. Phase II service requires that wireless carriers provide Automatic Location Identification (ALI) information to the PSAP centers. The accuracy requirements for this service are 50 meters (164 feet) for 67% of calls and 150 meters (492 feet) for 95% of calls with hand-based solutions, or 100 meters (328 feet) for 67% of calls and 300 meters (984 feet) for 95% of calls with network-based solutions. Therefore, if a caller utilizing a cell phone dialed 9-1-1 and was unable to speak, the PSAP could trace the call to a location close to the cell phone.

St. Louis County Dispatch Answering Data

The dispatch meets all of the above national and industry standards as illustrated in the table below:

Table 9:: 9-1-1 Answering Times

St. Louis County 9-1-1 Answering				
Range Answering	**2015 # of Calls**	**2016 # of Calls**	**2017 # of Calls**	**2017 - % of Total**
Abandoned Calls	246	249	226	0.15%
0 to 0 seconds	0	1	0	.000%
0 seconds to 10 seconds	140,008	143,678	144,590	94.2%
10 seconds to 20 seconds	7,415	8,622	7,703	5.00%

St. Louis County 9-1-1 Answering				
Range Answering	**2015 # of Calls**	**2016 # of Calls**	**2017 # of Calls**	**2017 - % of Total**
20 seconds to 30 seconds	706	836	739	0.48%
30 seconds to 40 seconds	102	167	110	0.07%
> 40 seconds	23	38	18	0.01%
Total	**148,500**	**153,591**	**153,386**	

Response Times

Providing emergency services is all about response times. How long it takes the fire department to get on location to begin to mitigate the fire or provide emergency medical service is the primal issue. An acceptable response time is subjective depending on if you are the one in need or not. When a citizen makes a call to 9-1-1 for an ambulance or fire, every second seems like minutes and their anxiety will disproportionately increase as the severity of the incident worsens.

All fire professional understands the importance of response time and many have lived the results of not being there just a few seconds sooner. Yet many fire departments do not routinely use data as a management tool to address opportunities to improve response times. This is unfortunately true for the participants of this study. The consultants were advised that the fire departments recommended response times be obtained from the St. Louis PSAP; therefore, the response time data provided was obtained from that source and not the individual fire departments.

Response Time Components

When examining response times, it is essential that all parties are talking about the same response time components. As noted in the National Standard section of this report, all three fire departments would strive to meet the NFPA 1720 standards in relations to staffing and response times.

The actual measurement of response time must be a total system understanding of all components of response time, including:

Detection Time: The time it takes to detect the emergency incident and dial 9-1-1.

Notification Time: The time from when the call is received by dispatch (PSAP) to the time the department is notified.

Turnout Time: The time it takes personnel to prepare and leave quarters after notification.

Travel Time: The time the first fire apparatus leaves the station to the time it arrives on the scene. (The term travel time ends when the unit arrives on location of the emergency)

Mitigation Time: The time the first apparatus arrives at the scene to the time when actual extinguishing/treatment (mitigation) efforts begin.

- Detection Time – the emergency agency has little to no control of when a person will actually dial 9-1-1 in an emergency. First, most people are very reluctant to call 9-1-1 until they realize they are unable to resolve the issue by themselves. Although detection time significantly impacts the emergency outcome, the fire department has no control over this factor.

- Notification Time – the time from when the Public Safety Answering Point (PSAP aka: Dispatch) receives the 9-1-1 call until the time the department is notified. There are numerous standards for PSAP when it comes to answering the phone, most departments utilize the standard in NFPA 1221. The NFPA 1221 requires the PSAP (Communication Center) to be able to answer the phone and notify the department within 64 seconds.

- Turnout Time (aka: Out the Door Time) – the time it takes personnel to prepare and leave quarters after notification. This factor of total response time is completely within the control of the fire department assuming they record and utilize the information in the management of the organization. Under NFPA 1720, turnout times vary depending on the population within a square mile (see table below).

- Travel Time - this represents the actual time it takes the apparatus to drive from the fire station to the emergency scene. Weather conditions and traffic congestion will be a factor in the length of time it takes the apparatus to arrive on the scene. Again under NFPA 1720, the travel times will vary as does the percent of compliance (see table below).

Table 10: NFPA 1720 Staffing and Response Time

Demand Zone[a]	Demographics	Minimum Staff to Respond[b]	Response Times (minutes)[c]	Meets Objective (%)
Urban Area	>1000 /mi^2	15	9	90
Suburban Area	500-1000/mi^2	10	10	80
Rural Area	<500/mi^2	6	14	80
Remote Area	Travel Distance ≥ 8 miles	4	Dependent on Travel Distance	90
Special Risk	Determined by AHJ	Determined by AHJ Based on Risk	Determined by AHJ	90
NFPA 1720: 4.3.2 Staffing and Response Time (2014 Edition)				

[a] *A jurisdiction can have more than one demand zone*
[b] *Minimum staffing includes members responding from the AHJ department and automatic aid*
[c] *Response time begins upon completion of the dispatch notification and ends at the time interval shown in the table.*

Eveleth, Fayal, & Gilbert Response Times

The table below are the actual recorded response times of each fire department for calls within their fire protection area provided by St. Louis PSAP. These times do not reflect calls outside of the departments primary response area such as mutual or automatic aid on fires to other departments.

Table 11: Eveleth, Fayal, Gilbert Response Times

Response Times		
Department	**Average Response Time**	**Average On Scene**
Eveleth Fire Department	08:34	11:28
Fayal Fire Department	08:51	18:45
Gilbert Fire Department	07:15	09:14

Average Response Times:

From the time the PSAP notifies the fire department until the first department unit leaves the station.

Average On Scene Times:

From the time the department leaves the station until they arrive at the emergency scene – all calls are within the departments primary response area and mutual/automatic aid is not included.

Department Governance and Leadership

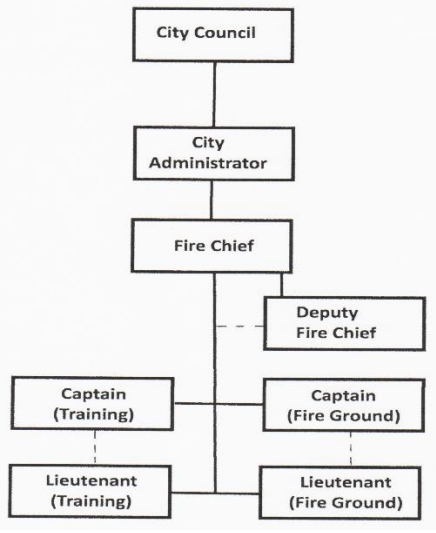
All three fire departments have a similar organizational structure although the titles might vary. The basic configuration would not become a factor if some type of consolidation is chosen. Emergency medical services are not the primary function of the fire department. The City of Eveleth has three municipal safety departments:

- Police
- Fire
- Emergency Medical

Eveleth Fire Department

The Eveleth Fire Department is an all-volunteer fire department staffed with 20 firefighters and command staff at the time of this report. All fire officers are appointed by the Eveleth City Council for a three-year term. The department's operational command staff consists of a Fire Chief, Deputy Fire Chief, Captain (Training Officer), Captain (Fire Ground), Lieutenant (Safety Officer) and Lieutenant (Training Officer). The current officers of the department have a combined average of nearly 15 years of service to the organization, with the Fire Chief having served since 1996. The fire department organizational chart is illustrated in the figure below:

Figure 15: Eveleth FD Organization Chart



There are several other positions that function to serve the membership's relief association such as a Secretary/Treasurer.

Stakeholders praised the Fire Chief's business acumen and were generally satisfied with the current and overall direction of the fire department. The Fire Chief has held the position of Fire Chief twice – once in 2004 – 2005 and again since 2014. Members indicated the Fire Chief was an effective leader both in the fire hall and during fire ground operations. Stakeholders related that there were few directly apparent problems within the department but when they arose, they believed that the Fire Chief dealt with the issues quickly which has helped to keep the morale of the department high. Within the department, there seemed to be confidents that the Fire Chief is both competent and capable of addressing organizational needs now and into the future.

Similarly, the stakeholders were generally equally pleased with the other fire officers of the department. Training was a topic brought up by many of those interviewed. While they were mostly positive about the training program, some questioned the existing training officers' qualifications and longevity within the department and their ability to consistently deliver high quality training to the department because of their lack of experience. With that said, the training curriculums reviewed the by consultants were very comprehensive. Training will be discussed more in-depth in another section of this report.

Members Interview Comments

The purpose of interviewing a department's membership is to identify areas of excellence and allow the members concerns to be acknowledged. These interviews provide the consultants with knowledge of areas that might be more problematic than others during a consolidation.

The consultants allowed fire department members to self-schedule interviews in over several days in May and June 2018 to gather input specific to the proposed consolidation discussion between the three communities. The consultants talked to 40% of the members and will summarize their general thoughts in this section:

- *Majority of the members interviewed were cautiously optimistic about the consolidation talks. This is a common occurrence found in most consolidation studies.*
- *A recurring theme throughout the study involved the decrease in volunteer members; two themes occurred:*
    - *There were members within the community who would be willing to volunteer. However, little information was shared with how this was to be accomplished.*
    - *Recruiting membership from a larger consolidated area would be beneficial and prevent the departments from competing for the same members.*
- *Concern that Eveleth does not have a functional Fire Commission which concerned them should any disciplinary action, demotion, or dismissal be required*
- *City's interference with departmental operations*
- *City might rescind the annual pension contribution for various reasons which caused a decrease in morale because the stakeholders indicated that they gave their time for little compensation knowing that their pension was a long-term benefit of volunteering.*
- *Members acknowledged that each department seemed to have an area of expertise: Eveleth = extrication, Fayal = water rescue, and Gilbert = truck evolutions (TeleSquirt). Combining these three areas of excellence would improve service delivery to the entire consolidated area.*
- *Members noted that eliminating the duplication of services that do exist between the three communities would be a benefit.*
- *Stakeholders noted that if a new fire hall were built, the best location would be near Hwy 53 and Hwy 37.*

Members noted several areas that might be problematic (common to any change initiative):

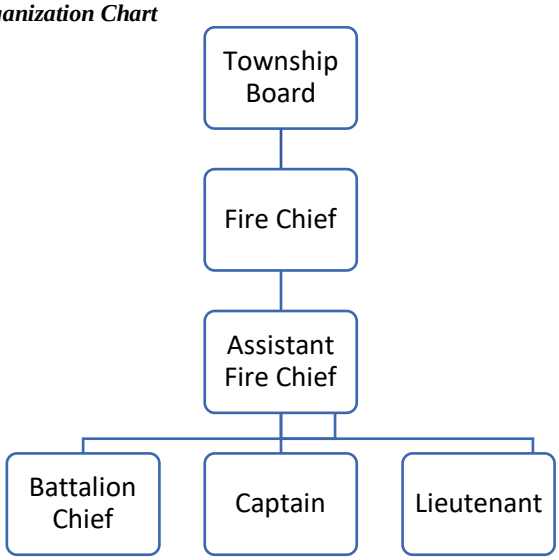
- *Concern of who would be the Fire Chief*
- *How would the department be structured, inasmuch as there were significant differences in experience, education, and training among the three departments; including fire officers and command staff*
- *Funding of the consolidated department was a concern shared*
- *How would each community be fiscally impacted?*
- *Perception that there wouldn't be equal participation in everything if a single department*
- *Favoritism would be shown to one community over another*
- *Members felt that by being larger "their voice" might not have as much influence on the direction of the consolidated department.*

Fayal Fire Department

The Fayal Fire Department is an all-volunteer fire department staffed with 22 firefighters and command staff at the time of this report. All fire officers are voted upon by the membership and are then appointed by the Township board based on the membership's recommendation. Fire officers are appointed for two-year terms. The department's operational command staff consists

of a Fire Chief, Assistant Fire Chief, Battalion Chief, Captain and Lieutenant. There are several other positions that function to serve the membership's relief association such as a Secretary/Treasurer. The current officers of the department have a combined average of nearly 17 years of service to the organization, with the Fire Chief having served since 1986.

Figure 16: Fayal FD Organization Chart



Stakeholders were generally pleased with the leadership and direction of the fire department. Many of the stakeholders were quick to articulate that the existing Fire Chief is considered a strong leader in the immediate region. Stakeholders praised the Fire Chief's on-scene command presence and spoke highly of his capabilities of running emergency scene operations.

Stakeholders strongly commented that the Fire Chief's knowledge of fire service operations was his greatest strength. Stakeholders perceived personnel matters appeared to be few and far between in the organization, but when there were issues, the Fire Chief was fairly non-confrontational in mitigating them.

Stakeholders were equally pleased with the other fire officers of the department and most commented that their monthly training program was strong and the topics were both timely and

relevant to organizational needs. Training will be discussed more in-depth in another section of this report.

Members Interview Comments

The purpose of interviewing a department's membership is to identify areas of excellence and allow the members concerns to be acknowledged. These interview provide the consultants with knowledge of areas that might be more problematic than others during a consolidation.

The consultants allowed fire department members to self-schedule interviews in over several days in May 2018 to gather input specific to the proposed consolidation discussion between the three communities. The consultants talked to 32% of the members and will summarize their general thoughts in this section:

- *Stakeholders were generally in favor of the consolidation talks*
- *Shared a concern for the lack of new volunteers and consolidation might benefit recruitment*
- *Several members commented that the fire department cannot continue to operate alone anymore as the decreased membership numbers will ultimately cause the quality of service delivery to decrease*
- *Many indicated that consolidation would help eliminate the duplication of services that exists in the three communities; were optimistic about the success of a single organization meeting future needs.*
- *There was a general consensus among stakeholders that a new fire hall would be a benefit to a new, joint organization as equipment could respond from a central location into each community being served*
- *Members were cautious to note that some specialized equipment would need to remain*
- *A tender would need to remain in Fayal*
- *If a new fire hall were built, the best location would be near Hwy 53 and Hwy 37 because of the quick ingress the building would allow into the greater district area.*

Members noted several areas that might be problematic:

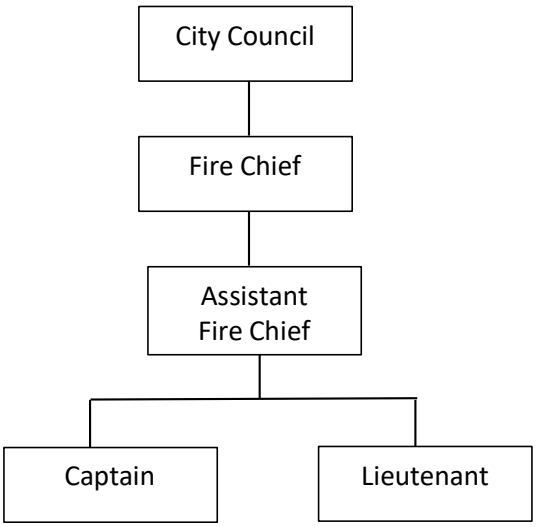
- *There was a feeling that the "department in-fighting" has been increasing and little action has been taken to eliminate it*
- *The department would benefit from a mentorship program to assist new members*

Overall the Fayal members' comments were far more positive about the department than their areas of concern.

Gilbert Fire Department

The Gilbert Fire Department is an all-volunteer fire department staffed with 18 firefighters and command staff at the time of this report. All fire officers are voted upon by the membership and are then appointed by the City Council based on the membership's recommendation. Fire officers are appointed for two-year terms. The department's operational command staff consists of a Fire Chief, Assistant Fire Chief, Captain, and Lieutenant. There are several other positions that function to serve the membership's relief association such as a Secretary/Treasurer. The current officers of the department have a combined average of over 14 years of service to the organization, with the Fire Chief having served since 2004.

Figure 17: Gilbert FD Organization Chart



Members Interview Comments

There were only two members who participated in the Gilbert members comment opportunity. Both were very positive about the department and leadership but were concerned about the need to replace considerable equipment including protective fire gear.

Department Staffing

Each of the three departments are currently staffed solely by volunteer employees. Like most volunteer fire departments across the nation, many volunteer firefighters reside outside of the immediate response area. The following figures demonstrate the approximate location that firefighters reside. The maps have been scaled to reflect the larger area where the employees reside but should give the reader a unique perspective on the staffing challenges that the departments face. The fourth and final figure in this section represents a consolidated fire district and employee locations.

Figure 18: Eveleth Fire Department Employee Locations

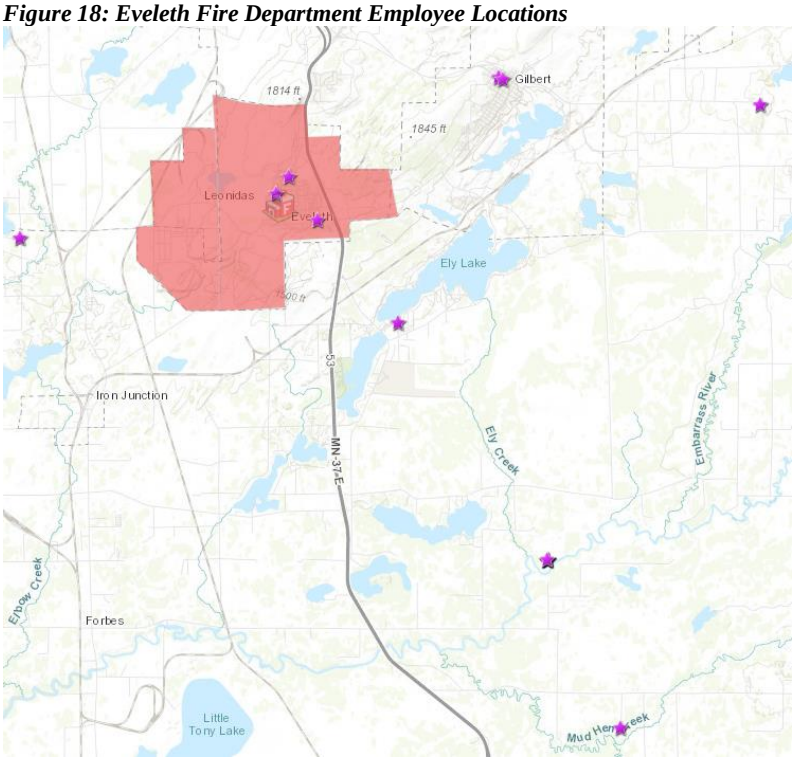


Figure 19: Fayal Fire Department Employee Locations

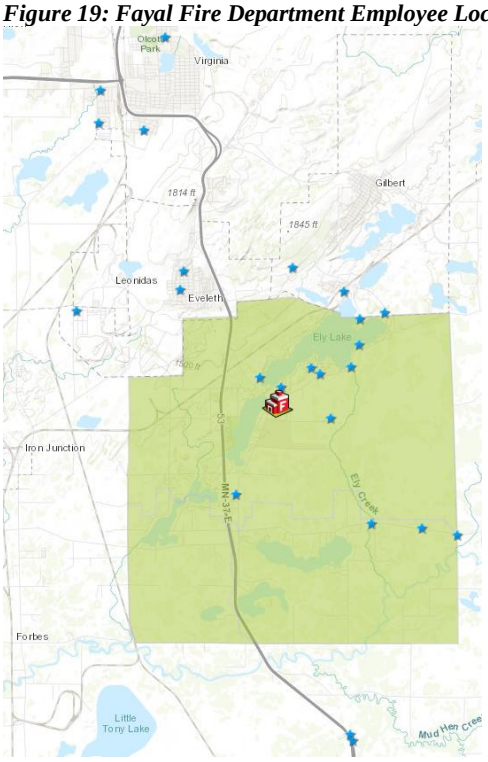


Figure 20: Gilbert Fire Department Employee Locations

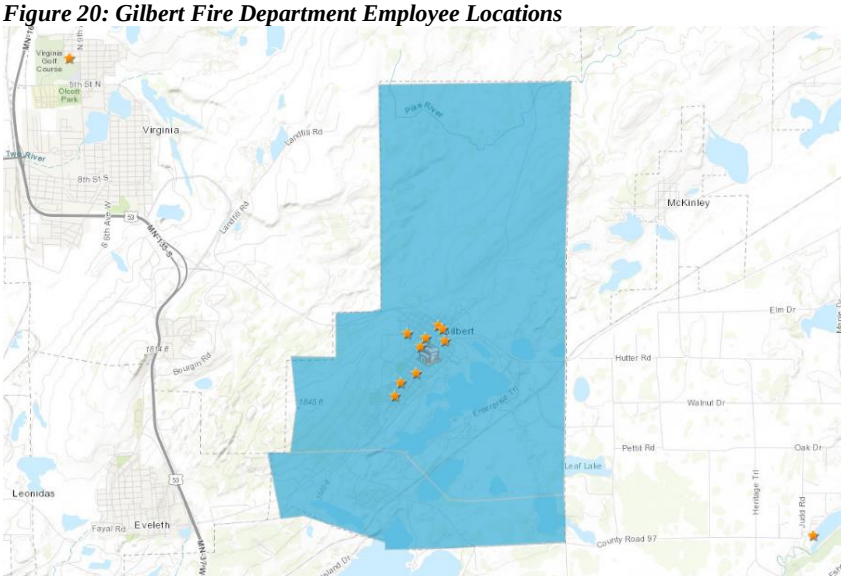
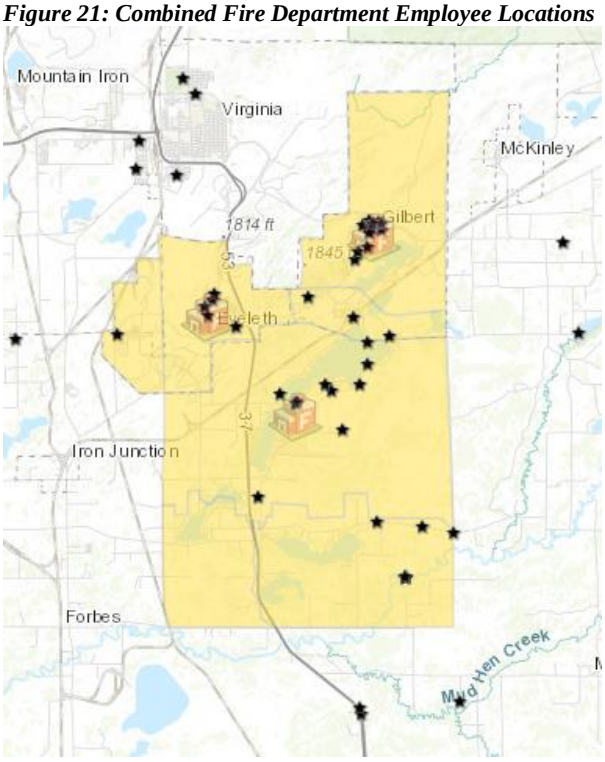


Figure 21: Combined Fire Department Employee Locations



A number of volunteers who volunteer for Gilbert or Fayal reside in Eveleth, or vice versa; however, allowing a firefighter to belong to two organizations was opposed by two of the three Chiefs, even though they fight fires together. A consolidated department would benefit from the sharing of employees across the entire fire district and any fire hall(s) the three participating communities choose to operate.

Human Resources

To evaluate the human resource practices of the organization, we must clarify the definition of an employee and the definition of a volunteer. Keep in mind, the Departments are part of a City or Township; thus, all federal and state labor laws apply regardless if the fire department personnel are employees or volunteers.

Fair Labor Standards Act

In order to understand the compensation and overtime rules for the departments, one must first take a step back and understand the definition of an employee and the types of employees allowed under the Fair Labor Standards Act (FLSA). The Fair Labor Standards Act is the federal law passed in 1938 to regulate minimum wages, overtime pay, equal pay, and child labor standards in employment. In 2004 the federal regulations were amended with clarifications to the federal exemptions to the overtime provisions, as well as clarifications with municipal employees. The State of Minnesota follows the provisions of the FLSA through the Minnesota Fair Labor Standards Act. Minnesota's FLSA requires overtime to be paid for hours worked over 48 hours a week; whereas, the Federal FLSA requires overtime paid for hours worked over 40 hours per week.

The question is then what law to follow – Minnesota's FLSA or the federal law. Federal overtime laws apply to:

- Businesses whose employees produce or handle goods for interstate commerce;
- Businesses with gross annual sales of more than $500,000; and
- Certain other businesses, including hospitals, nursing homes, schools and government agencies. (A guide to Minnesota's overtime laws).

Based on this definition, all three municipalities would qualify as a government agency and therefore, would follow the federal FLSA guidelines.

This section delineates the regulations of the FLSA as it applies to all forms of employment currently present within the departments –paid-on-call/part-time, paid-on-premise; and full-

time/career. Thus, how the individuals are classified and how they are compensated will be the determining factors in the Cities/Township obligations under the FLSA. When Federal and State FLSA regulations conflict, the ruling is based on what is most beneficial for the employee. Furthermore, additional clarification will be made as to what constitutes an exempt (salaried) employee from a non-exempt (hourly) employee and the pay implications.

Regulations

The FLSA covers a broad range of employers. An employer, unlike under other employment law, does not need to employ a threshold number of employees to be covered. An organization must comply with the FLSA if the organization:

- Is engaged in interstate commerce and has a gross income of $500,000; or
- Is a government agency; or operates a hospital, health care facility or school.

There is no question the Fire Departments are considered to be a public agency and thus falls under the FLSA provisions.

What is an employee? The definition of an employee under FLSA is an individual who performs services for the "employer." If an individual is not an employee, he or she is not covered by the minimum wage, overtime, recordkeeping, and other provisions of the FLSA.

Volunteers/Paid-on-Call: The FLSA provides a specific exemption for individuals who volunteer services to public agencies. The FLSA, however, exempts public employers from paying minimum wage and overtime to individuals who qualify as "volunteer/paid-on-calls" – individuals motivated to contribute service for civic, charitable, or humanitarian reasons. An individual who performs services for a public agency qualifies as a volunteer/paid-on-call, if:

- The individual receives no compensation, or is paid *expenses, reasonable benefits, or a nominal fee* to perform the services for which the individual volunteered; and
- Such services are *not the same type of services* for which the individual is employed to perform for *the same public agency.*

If an individual meets the above criteria for volunteer/paid-on-call status, he or she will not be considered an employee covered by FLSA minimum wage and overtime provisions. *A public employer can pay a nominal fee to volunteer/paid-on-calls; the fee must not be a substitute for wages and must not be tied to productivity*. Thus, a paid-on-call member in a municipal environment, performing public safety responsibilities, and who does NOT receive compensation that is tied to productivity, such as an hourly wage, would also be exempt from the minimum wage requirements.

Paid-on-Call, Part-time or Paid-on-Premise Personnel: Individuals who receive some sort of compensation or nominal fee will have their employment status based upon how the fee is distributed. Two types of compensation are considered to be nominal fees by the Department of Labor (DOL) and continue to exempt the employee from the Fair Labor Standards Act – Pay per call, or a monthly/annual stipend. Pay per call, whether the person responds from their home or place of employment or is scheduled for hours at the fire station (paid-on-premise), is compensation paid to the individual when responding to an emergency call. The amount of *compensation may not be tied to productivity and may not vary on time spent on the activity*. The Department of Labor's regulations specify that the payment of a nominal amount on a per-call basis to volunteer/paid-on-call firefighters is acceptable so long as the compensation is tied to the volunteer/paid-on-call's sacrifice rather than productivity-based compensation. (DOL, Wage and Hour Division Opinion Letter, August 7, 2006)

However, the Department of Labor has determined that payment to volunteer/paid-on-call firefighters on a per-hour basis destroys the bona fide volunteer/paid-on-call status and creates an employment relationship. This type of payment is akin to hourly wages based on productivity. (DOL, Wage and Hour Division Opinion Letter July 7, 1999)

Minnesota Minimum Wage

The minimum wage in the State of Minnesota is $9.65 per-hour as of January 1, 2018; as long as the municipal budget is ≥ $500,000 annually. All three (3) municipality annual budgets exceed

$500,000. Therefore, any payment based on a per-hour basis must be a minimum of $9.65 per-hour.

Therefore, Township of Fayal and Cities of Eveleth and Gilbert do not meet the Minnesota minimum wage requirements for emergency calls that exceed one-hour in duration as will be discussed.

Departments Member Employment Status

Based on the definitions and requirements under FLSA, each department pays differently and therefore, their members could or could not be considered employees. As previously stated, a member cannot be both; so, if members are paid per-hour, that is considered pay tied to productivity; whereas, if members are paid a set amount or a point system, they might be considered volunteer/paid-on-calls. If members are paid in-part both per-hour and a fixed amount regardless of time, they would be considered employees.

Eveleth Fire Department

Members are paid $5.00 per-hour for training and receive $7.00 per-hour for emergency incidents and are paid quarterly. The member's compensation is tied to productivity; therefore, Eveleth Fire Department members are classified as employees. The City of Eveleth must comply with all federal and state laws as it relates to minimum wage and overtime (overtime issue will be discussed in a later section of the report). The Fire Department compensation to its paid-on-call does not meet the State of Minnesota's Minimum Wage Law and should be addressed for compliance.

An option for the Eveleth Fire Department is to change the compensation structure to a stipend – or a per call amount. Thus, regardless of the time commitment to a call – 10 minutes or 5 hours, the amount of the compensation remains the same. If this change were made, the members of the department would return to volunteers and minimum wage requirements would not need to be met.

If the City and department continue with employees, there is an option to pay different wages for fire-emergency incidents and a different rate of pay for training (assuming both are above Minnesota's minimum wage). This will be discussed in the 7G FLSA exemption section of the report.

There are six (6) members who also receive a month stipend for holding a particular position within the Department as illustrated in the table below:

Figure 22: Eveleth FD Stipends

Eveleth Fire Department		
Position	**Stipend per Month**	**Annual Stipend**
Fire Chief	$ 500.00	$ 6,000.00
Deputy Chief	$ 290.00	$ 3,480.00
Captain	$ 150.00	$ 1,800.00
Captain	$ 150.00	$ 1,800.00
Lieutenant	$ 75.00	$ 900.00
Lieutenant	$ 75.00	$ 900.00
Totals	***$ 1,240.00***	***$ 14,880.00***

Stipends, in addition to an hourly wage, are acceptable under FLSA. The Consultant's recommend that these amounts are tied to differences in job responsibilities of the rank. A critique of job descriptions will be discussed in the Job Description section of the report. Therefore, it is recommended that the pay is tied to additional responsibilities, skills, and requirements of the ranks. Further, the stipends should be evaluated annually for appropriate increases.

In addition, a member must attend 35% of all emergency calls and attend 12 training sessions (makeup classes provided) in order to be eligible for the Department pension.

Fayal Fire Department

Members are paid $10.00 for all meetings and training sessions regardless of how long they last, which, under FLSA they would be considered volunteer/paid-on-calls. However, all members are paid $10.00 for the first hour of an emergency call and $5.00 per-hour if it extends past the first hour; therefore, this payment methodology changes the volunteers/POC members to employees. Their compensation is tied to productivity; therefore, Fayal Township must comply with all federal and state laws as it relates to minimum wage and overtime the township pays annually.

In summary, there are ten (10) members of the Fayal Fire Department that received a stipend for their position within the organization as illustrated in the table below:

Table 12: Fayal FD Stipends

Fayal Fire Department		
Position	**Stipend per Month**	**Annual Stipend**
Fire Chief	$ 100.00	$ 1,200.00
Asst Chief	$ 70.00	$ 840.00
Batt. Chief	$ 70.00	$ 840.00
Captain	$ 60.00	$ 720.00
Lieutenant	$ 60.00	$ 720.00
Sec./Treas.	$ 80.00	$ 960.00
EMS Officer	$ 60.00	$ 720.00
Engineer	$ 30.00	$ 360.00
Engineer	$ 30.00	$ 360.00
SCBA Tech	$ 30.00	$ 360.00
Totals	***$ 590.00***	***$ 7,080.00***

Stipends, in addition to an hourly wage, are acceptable under FLSA. The Consultant's recommend that these amounts are tied to differences in job responsibilities of the rank. A critique of job descriptions will be discussed in the Job Description section of the report. Therefore, it is recommended that the pay is tied to additional responsibilities, skills, and requirements of the ranks. Furthermore, the stipends should be evaluated annually for appropriate increases.

In addition, a member must attend 25% of all emergency calls and 75% of all trainings in order to be eligible for the department pension.

Gilbert Fire Department

Members are paid $16.00 for the first hour and an additional $8.00 per-hour for prolonged incidents. Training is paid at $8.00 per-hour. The Captain receives a stipend for the position but is also paid double per hour on emergency calls ($30.00 first hour and $16.00 per-hour for prolonged calls. In addition, any member that drives an emergency vehicle is paid an additional $5.00 per-incident. The City pays annually. Gilberts Fire Department member's compensation is tied to productivity and qualify as employees of the City. The City must meet the FLSA provision on minimum wage and overtime.

There is no reason why one rank should receive double compensation. Rather, reallocating these dollars to a higher base rate, and ensuring the training rate complies with Minnesota minimum wage would better serve the department.

In summary, there are five (5) members of the Gilbert Fire Department that receive a monthly stipend as illustrated in the table below:

Table 13: Gilbert FD Stipends

Gilbert Fire Department		
Position	**Stipend per Month**	**Annual Stipend**
Fire Chief	$ 275.00	$ 3,300.00
Asst Chief	$ 200.00	$ 2,400.00
Captain*	$ 125.00	$ 1,500.00
Lieutenant	$ 150.00	$ 1,800.00
Sec.	$ 100.00	$ 1,200.00
Totals	***$ 850.00***	***$ 9,900.00***

** Captain also receives double pay per-hour*

In addition, a member must attend 30% of all emergency calls and 60% of all trainings in order to be eligible for the Department pension.

Departments Volunteer/Paid-on-Call Payments

The Departments payment method to employees is different for each department. Again, how the member is paid determines if they are classified as an employee or volunteer/paid-on-call.

The first question is – are the member's employees or volunteer/paid-on-calls? Once they are paid by the hour, they are considered employees. As an employee, the Township/Cities must ensure the following:

- *There is an established work cycle*
- *Ensure hours worked over the work cycle are paid at an overtime rate*
- *All hours at paid a minimum wage*

In addition, under Minnesota statute, employers are required to pay their employees for all wages due at least once every 31 days. Therefore, all three communities have fire department compensation methodologies that correlates to employees – not volunteers/POC's – therefore, pay must be on a monthly basis.

FLSA Work Cycle

The FLSA allows firefighters to be paid an overtime rate that is not based on a 40-hour week; this provision is commonly referred to as the 7(k) exemption. The law allows the employer (municipality) to choose a pay cycle from seven (7) to twenty-eight (28) days as illustrated in the table below:

Table 14: 7K Firefighter Overtime Chart

Cycle	Hours Allowed	Hours Worked	FLSA Overtime
28	212	224	12
27	204	216	12
26	197	208	11
25	189	200	11
24	182	192	10
23	174	184	10

Cycle	Hours Allowed	Hours Worked	FLSA Overtime
22	167	176	9
21	159	168	9
20	151	160	9
19	144	152	8
18	136	144	8
17	129	136	7
16	121	128	7
15	114	120	6
14	106	112	6
13	98	104	6
12	91	96	5
11	83	88	5
10	76	80	4
9	68	72	4
8	61	64	3
7	53	56	3

Most municipalities for a volunteer or paid-on-call department choose the highest FLSA cycle (28-days). This would mean that if any member, other than an exempt member, (currently none are classified as such) would not receive overtime at a rate of 1.5 times normal hourly rate until that member exceeds 212 hours within the 28-day cycle.

The cycle beginning date and ending date must be set by the municipality and the Fire Chief must account for the hours any member works (receives compensation) within those 28-days, At the end of the 28th day, a new 28-day cycle would begin. The probability that any of the department members/employees would reach this threshold at this FLSA cycle would be rare; however, the departments have an obligation to track hours and ensure all time worked, if over the 212 hours in the 28-day cycle, is paid at the overtime rate.

Training hours will need to be converted to an hourly rate and tracked as hours worked. Per the 7G FLSA provision, those hours, as long as they do not resemble the work performed as a volunteer/paid-on-call, are truly training and/or meeting duties. Thus, these training hours can be paid at a different rate provided they meet Minnesota's Minimum Wage requirement.

The recommendation is that the Departments/Municipalities utilize the Minnesota Minimum Wage as the base wage for training hours, or other non-emergency station work. The minimum wage rate, or a higher than minimum wage rate for payment when responding to incidents. Keep in mind, if any employee works beyond the 212 hours, the hourly rates will have to be recalculated to overtime rates and paid accordingly. Thus, the Departments will need to keep a watchful eye on the time put in by employees during each work cycle.

Whether the employees are paid quarterly or annually, the 28-day work cycle hours still need to be established to determine if any overtime was earned during that defined work cycle/period. If any of the Departments convert any employee to full-time, they need to understand the FLSA definition of hours worked verses hours paid (currently this is not a factor).

Finally, each organization is required to maintain recordkeeping requirements for all employees, including City/Township personnel. The Wage and Hour Division provides the following as a list of the basic records an employer must maintain:

- Employee's full name and social security number
- Address, including zip code
- Birth date, if younger than 19
- Sex and occupation
- Tim and date of week when employee's workweek begins
- Hours worked each day
- Total hours worked each workweek
- Basis on which employees' wages are paid (i.e., $12.00 per hour for emergency response; $9.75 for training)
- Regular hourly pay rate
- Totally straight time earnings
- Total overtime earnings for the pay cycle
- Total wages paid each pay period

- Date of payment and the pay period covered by the payment

All payroll records must be maintained for at least three (3) years. Records on which wage computations are based should be retained for two (2) years (i.e., time cards, wage rate tables, records of deductions from wages, etc.). (Wage and Hour Fact Sheet #21: Recordkeeping Requirements under the Fair Labor Standards Act)

Recruitment

Departments Demographics

Prior to continuing the discussion on recruitment, the Consultant performed an analysis of the years of service and age of members within each Department.

Age Demographics

The age and years of service is very revealing for the Departments. As the baby boomer generation continues to age, many departments are finding a significant skills gap between those who have the ability to retire, and the age and experience of those in line to replace them. Efforts and emphasis need to be placed on developing succession plans so less tenured individuals within the organization understand the skills, education, and knowledge necessary to step into these positions when they become vacant. Promoting individuals just based upon seniority does not benefit the individual or the organization.

The figures and tables below illustrate the departments current members by age and years of experience:

Figure 23: Departments Age Categories

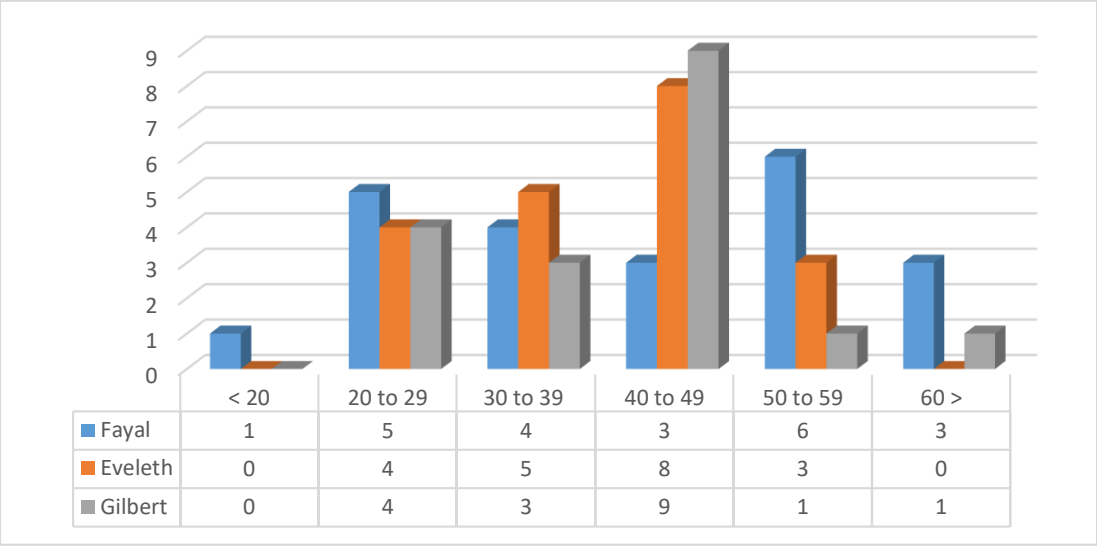
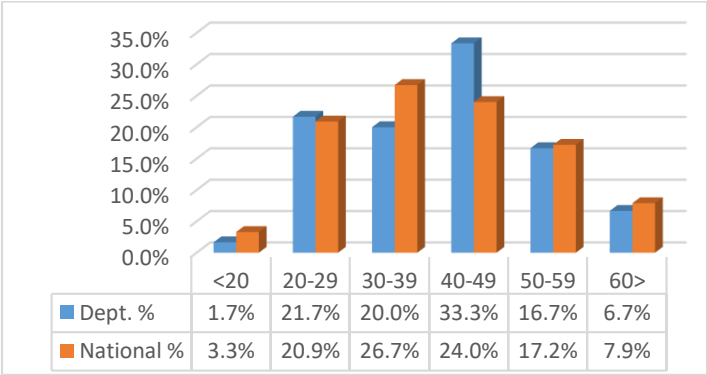


Table 15: Combined Age Categories Depts. & National

Age	Depts	% of Total	**National %**
< 20	1	2.5%	3.3%
20 to 29	9	22.5%	20.9%
30 to 39	7	17.5%	26.7%
40 to 49	12	30.0%	24.0%
50 to 59	7	17.5%	17.2%
60 >	4	10.0%	7.9%
Total	***40***	***100.0%***	***100.0%***
Source: U. S. Fire Department Profile			



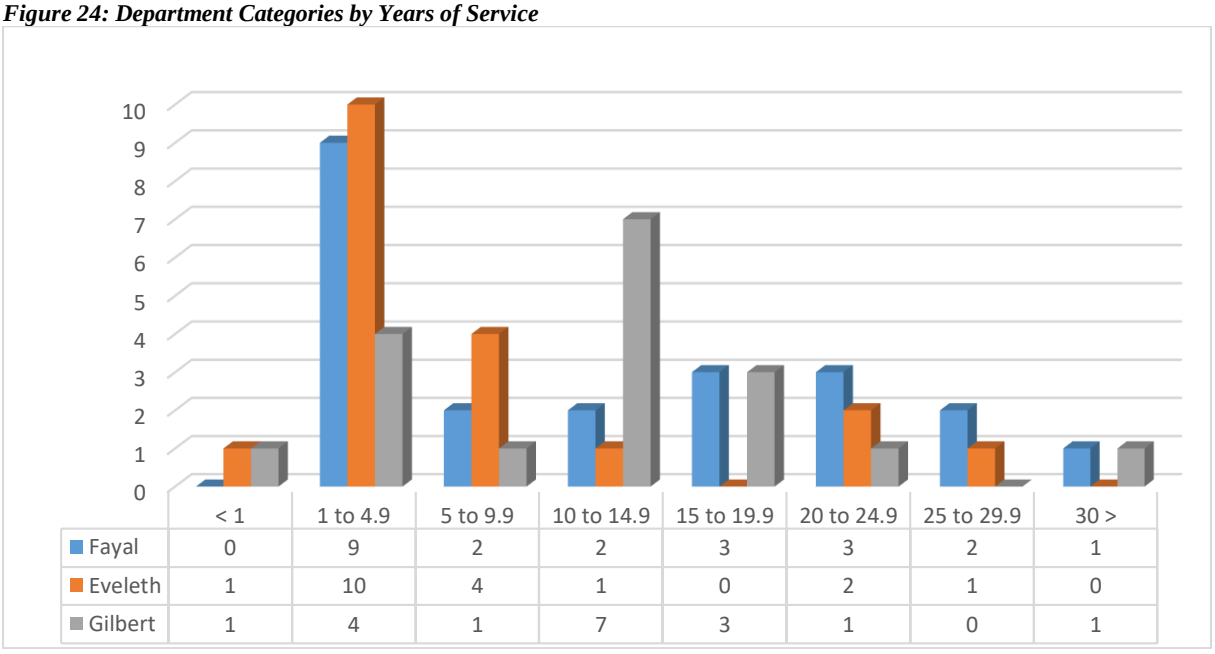
Age Demographics Findings:

The category by age for the three departments balances pretty well when for example age category 30 to 39 the departments are lower than National; however, in the category of 40 to 49 they are higher. The average difference when you compare all six age categories is the departments are 0.4% younger than National percentages. Although many in the industry state "it's a young person's job", the added years of experience can be very beneficial in the succession planning process.

Years of Service Demographics

The three (3) Departments also provided employees years of service. Nationwide, the number of volunteer/paid-on-call firefighters is declining, while the average age of volunteer/paid-on-call firefighters is increasing. Although all three (3) Departments have members with greater than 25 years of service, they are fewer in number, and nationwide the average tenure of a volunteer/paid-on-call has reduced from 20 years down to 5 years. Additionally, members with 25 plus years of service often are considered "lifetime members" and are less active in performing firefighting tasks. Departments are finding it difficult to attract younger members due to a range of reasons, including increased demands on people's time, longer commuting distances to and from work, the prevalence of two-income households, and increased training requirements. Increasingly, young members are joining volunteer/paid-on-call fire departments to gain experience and training certifications that make them more eligible for career firefighter positions *(source: Fire Service Training Institute)*.

Figure 24: Department Categories by Years of Service



	< 1	1 to 4.9	5 to 9.9	10 to 14.9	15 to 19.9	20 to 24.9	25 to 29.9	30 >
Fayal	0	9	2	2	3	3	2	1
Eveleth	1	10	4	1	0	2	1	0
Gilbert	1	4	1	7	3	1	0	1

Table 16: Departments Years of Service

Yrs. Service	Fayal	Eveleth	Gilbert	Total	% of Total
< 1	0	1	1	2	3.4%
1 to 4.9	9	10	4	23	39.0%
5 to 9.9	2	4	1	7	11.9%
10 to 14.9	2	1	7	10	16.9%
15 to 19.9	3	0	3	6	10.2%
20 to 24.9	3	2	1	6	10.2%
25 to 29.9	2	1	0	3	5.1%
30 >	1	0	1	2	3.4%
Total	***22***	***19***	***18***	***59***	***100.0%***

The U.S. Fire Administration records years of service in different categories combining anything with 10 years or more into a single category and represents volunteer/paid-on-call (non-career) firefighters only, as illustrated in the table below:

Table 17: Department & National Years of Service Categories

Years	<1	1 to 5	6 to 10	>10	Total
Departments	3.4%	39.0%	11.9%	45.7%	*100.0%*
National	*9.5%*	*25.5%*	*23.2%*	*41.8%*	*100.0%*

Years of Service Findings:

The data indicates the Departments percentage of members in the range of 1-5 years is positive; however, a significant drop of members in the range of 6-10 years is concerning. First, members in the 6-10-year range most likely have their required certifications, training, and have some actual field experience. The drop between these two (2) ranges of years of service would support the findings that most volunteer/paid-on-calls who leave a department usually occurs within the first five (5) years.

The age and years of service for the two departments are very revealing for the department. As the baby boomer generation continues to age, organizations are finding a significant skills gap between those that have the ability to retire, and the age and experience of those in line to replace them. Efforts and emphasis needs to be placed on developing succession plans so that less

tenured individuals within the organization understand the skills, education, and knowledge necessary to step into these positions when they become vacant. Promoting individuals just based upon seniority does not benefit the individual, nor the organization. These two departments are no exception. Within Fayal, of its 22 members, 50% have less than 10 years of experience and are under the age of 40. Gilbert has 38% of its 18 employees in the same category.

This data illustrates that future career growth and retention could be troublesome. With such a young workforce, career development is essential to ensure the skill level of these members. Furthermore, in order to retain this employee group beyond the ten (10) year mark, the chief officers need to make sure this group feels they are active in the department; this includes continued training and education, as well as coaching and mentoring to move into leadership rolls.

Departments Recruiting

The current recruitment process between the Departments range from word-of-mouth to a fairly aggressive recruitment program. However, among the various responsibilities to accomplish in a paid-on-call department is the development of an ongoing recruitment program. The U.S. Fire Administration under FEMA provided a list of the major reasons why individuals don't volunteer as firefighters as shown in the table below:

Table 18: Why Individuals Don't Volunteer as Firefighters

Why People Don't Volunteer	
Reason	**% of Total**
Lack of time	44.7%
Health/Medical problems	14.7%
Family responsibilities	9.5%
Other	8.2%
No longer required / relevant	5.8%
Wasn't interested	4.3%
Moved, transportation, expense	4.2%
No one asked	3.2%
Burnout	2.4%
No longer member of organization	1.7%

Source: U.S. Fire Administration

The Consultants sensed a strong sense of pride in the paid-on-call members during the interview process. This sense of pride is the tool that each member has to sell to others. On a national basis, 50% of current volunteer/paid-on-calls have close friends or relatives who introduced them to a fire department.

Recruitment is also another critical part of maintaining membership. It may be the potential members first contact with the Township/City so it is an employer's first opportunity to make a positive impression for the applicant. Right or wrong, first impressions can influence decisions. The recruitment process should be easy to follow, transparent, and timely, so the applicant has a positive experience; so even if they are not selected, they may be drawn to apply again in the future.

Today's candidate doesn't always utilize the traditional modes of looking for positions. Since recruitment needs to go beyond traditional networking, use of social media sites can assist. Members want a purpose, and the Township/Cities websites should be expounding why there is a benefit to becoming a Firefighter for the Township/Cities. Thus, the Township/Cities need to ensure its website, Facebook, LinkedIn etc. sites are emphasizing their opportunities with their respective Departments, in addition to traditional recruitment in local newspaper, radio, television media sources. Finally, each Department should be using public outreach opportunities, such as having a recruitment table at local community events whenever possible. The following is a summary of the finding of the three (3) departments.

Eveleth Fire Department

Eveleth uses a City application that can be found on the City website, so there is easy accessibility to the application, although no additional information on the expected hiring process is available. Applications are received at City Hall and forwarded to the Fire Chief for screening. The Public Safety Committee is responsible for conducting interviews. It should be noted that the City asks if applicants are U.S. Citizens. This question should be removed, as it can be considered discriminatory on the basis of National Origin.

Candidates are also subject to a physical agility test, although this is not a validated test. The City does require a waiver to be signed prior to administering this test. A social media check and criminal background check are conducted if the Committee is interested further in the applicant, via the Police Department. Upon successfully passing the background process, a recommendation is made to the City Council to make a contingent offer of employment, dependent upon successfully passing all related pre-employment exam

Fayal Fire Department

Fayal uses a Township application, although it could not be found on the Township website. There was no additional information on the expected hiring process available. Applications are received by the City Clerk or Fire Chief. There is a standing committee responsible for conducting interviews, and a written test made up of math and other general competencies along with a physical agility test are administered immediately following the interview. Neither tests are validated. The Township does require a waiver to be signed prior to administering the physical agility test. A social media check and criminal background check are conducted if the Committee is interested further in the applicant, via the Police Department. Upon successfully passing the background process, a recommendation is made to the Board to make a contingent offer of employment, dependent upon successfully passing all related pre-employment exams.

Gilbert Fire Department

Gilbert uses a City application, which was found on the City website. There was no additional information on the expected hiring process available. Applications are received by the City Clerk or Fire Chief. Interviews for membership are conducted during department meeting with the entire department and no other screening tools are utilized. The membership determines if the candidate is or is not acceptable to the department and then provides a recommendation to the City Council. A contingent offer of employment is made dependent upon successfully passing all related pre-employment exams. It was not clear what exams are administered beyond a DOT physical.

Recruitment and Hiring Findings:

Each Department has a slightly different interviewing/selection process. The Departments are not utilizing websites or social media tools as effectively as possible, which is also inexpensive to maintain. It is important that each Department also have a written standardized interview and selection process and make that available on their websites for applicants to review.

Oral interviews at the entry level, should only be conducted by a represented number of members within the Departments as well as a representative of City/Township administration. A Fire Officer should either be present at these meetings or conduct training with members of the Department to ensure questions are within legal parameters to avoid claims of unfair or discriminate hiring practices. A scoring methodology system should be established, and all documents maintained per the Township/Cities document retention policy.

Any form of voting by the membership should cease. This process can lead to discriminatory practices as no objective criteria is utilized.

The Consultants recommend the Departments move to more standardized written tests that have been validated by a reliable source. There are concerns when organizations develop their own written tests in that, if challenged, there is difficulty in establishing the tests have not discriminated against a particular protected class of individuals. There are a number of organizations that provide validated written entry-level tests the Consultant's suggest the Department's consider.

For a physical agility exam to be valid, it must be applicable to the physical fitness level required to perform the essential job duties of being a firefighter. Practices that include testing components that cannot be directly linked to job functions are problematic in that they may be considered discriminatory, thereby wrongly eliminating candidates who would otherwise be qualified for the job. To reduce liability risk in this area, the Consultants recommend the

Departments use a third-party agency to conduct candidate physical agility testing utilizing the nationally recognized Candidate Physical Agility Test (CPAT). The CPAT is a legally defensible and legitimate tool for assessing eligibility for employment. In addition to being endorsed by the International Association of Fire Fighters and International Association of Fire Chiefs, the test meets validity criteria established by the federal Equal Employment Opportunity Commission, the U.S. Department of Justice, and the U.S. Department of Labor.

To ensure all candidates have an equal opportunity to succeed, the CPAT includes an orientation and mentoring process that begins weeks prior to the actual test. This process involves an explanation of the test and its physical demands, recommendations of training and conditioning drills, and an opportunity to preview and practice the exercises. The CPAT examination process is open to anyone interested in taking the test. All costs associated with the CPAT testing process should be bore by the candidate themselves.

Finally, given at least two (2) departments provide for a post-offer pre-employment process with an occupational health medical provider in the area, the Departments should all consider reviewing their tests with this provider to develop consistent testing and threshold requirements.

Overall, should the Departments consider consolidation in the future, having the same pre-employment processes, screening, and post offer testing consistent through all Departments will better support this transition.

Orientation

When a candidate completes all required post-offer testing and checks, a hire date is set between the candidate and the Chief, although the orientation process varies per Department. The orientation process is as important as the interview process in terms of impressions an organization makes on a new hire. An engaging orientation process that is clearly laid out and documented for the new member will be smoother and more productive than informal processes and sets a standard of expectation. An effective orientation process will cover the culture and

history of the Department, SOPs and performance expectations, job requirements, communication expectations, issuing gear, and much more. The following is a summary of the orientation processes identified for each Department:

> **Eveleth Fire Department** – has a written orientation checklist outlining member information, mentor name, required paperwork/signatures, assignment of equipment, expectations and fire call response duties, apparatus equipment familiarization, and location.
>
> **Fayal Fire Department** – no documents were located. Department indicated orientation includes providing mentor information, providing copy of by-laws and SOGs.
>
> **Gilbert Fire Department** – no documents were located. Department indicated orientation includes issuing equipment, explaining expectations, and reporting to City Clerk to complete payroll information. Will provide by-laws and SOGs.

A written comprehensive orientation checklist will help ensure consistent training and documentation of the training process, especially if mentors vary. This will also ensure time sensitive items, such as I-9 documents that have mandatory timelines for completion, are met within legal timeframes. Orientation processes should include payroll information, scheduling, gear assignment, a copy of all relevant SOG's and other policy/procedure, introduction to other personnel, introduction to physical location, introduction to apparatus/equipment, location of resource materials, sit down time with the Chief, and other items specific to the Department.

Employee Handbook

Employee Handbooks are a summary of information about an organization that will often include administrative procedures and employment related policies. This document covers basic topics such as expectations of conduct, selection and promotional processes, hours of work, discipline, benefits (if applicable), separation, and standard employment policy topics such as harassment, bullying, use of technology etc.

The following is a summary of the employee handbooks, or related documents identified for each Department:

> **Eveleth Fire Department** – no employee handbook was located. The Department has Administrative Guidelines and SOGs.

Fayal Fire Department – no employee handbook was located. Department has by-laws and SOGs.

Gilbert Fire Department – no employee handbook was located. Department has by-laws and SOGs.

Each Department is recommended to immediately implement and utilize their respective City/Township Employee Handbook, if one exists. If no such Handbook exists, those Departments are recommended to develop a Handbook outlining non-operational items and employment related policies not currently in place. The employee handbook should be distributed to all members and acknowledged as received in writing.

Job Descriptions

Although many volunteer fire departments believe a job description isn't important for an organization such as theirs, they are no less important for a volunteer fire department than a career department. Job descriptions are useful communication tools to explain to members what tasks the Department expects them to perform. Job descriptions should also address performance standards. Without these tools, members may not perform as expected. Job descriptions also identify the education, skill, and ability necessary for a position. Minimum qualifications assist in screening for recruitment and promotional purposes and provide members with a guide of what will be needed to attain higher ranking positions they may be interested in obtaining in the future.

Below is a summary of the findings of job description documents found in the three (3) departments:

Eveleth Fire Department – has very well written and complete position descriptions for the positions of: Fire Chief, Deputy Chief, Captains, and Lieutenants.

Fayal Fire Department – although there are no formal job or position descriptions, the department's Constitution and By-Laws (last revised March 2015) do address some of the responsibilities of Officers positions.

Gilbert Fire Department – nothing in the fire department's Standard Operating Guidelines or By-laws identified the criteria found in a job or position description.

Job descriptions should be a part of the application process – in which the applicant signs off that they are capable of performing the functions of the position and of indicating the types of accommodations that are required. The job descriptions should also delineate responsibilities of officers – not only operational skills, but also management and leadership skills required for the positions. These job descriptions should be utilized not only in the hiring process, but also the promotional process.

Performance Evaluations

Although none of the three (3) departments have a formal performance evaluation process, two (2) departments acknowledged it should occur, even if it is in the form of a drill. It is well known that recognition is the number one motivator of people, especially powerful with volunteers. Over the careers of the Consultants, a simple exercise was performed with multiple fire service groups from career, combination, and volunteer departments. The number one ranked motivator, from a list of ten (10) possible responses of 'what employee's want most out of a job' was Appreciation/Recognition of Work Done.

A major purpose of a performance evaluation is to acknowledge and encourage high quality performance. There is no better way to open an effective channel of communication between the Officer and department member, yet studies indicate 90% of employees dislike formal performance reviews and officers dislike them as well. However, ongoing performance discussions with the members, summarized in writing and reevaluated annually, is critical in providing feedback and recognition for performance.

The Departments should move to a Performance Management model where Officers regularly meet and talk with their subordinates to provide timely feedback. These meetings should be no less than quarterly and depending on the situations, the meetings may need to be more frequent. These meetings may be formal or informal, but note taking and documentation are essential and

mandatory components. The Departments might do well to develop a generic "topic template" for these discussions. This model gives the member time to prepare and focus on the upcoming discussion and gives the officer a forum to ask questions, make notes, and provide feedback. The conversation can also focus on what the member wants either professionally to move up the career ladder, or what the focus of the members' reason for volunteering.

An excellent tool in the evaluation tool box that should be considered by the Departments is a self-evaluation. No member wants to be a problem or weak link within an organization. A self-evaluation tool helps an employee to critically analyze their own performance and to provide insight into their strengths and weaknesses. A perception fallacy is that if you ask them to rate themselves, they will tell you how great they are since no one is going to tell their boss how they are underperforming. This is not the case, as members/employees tend to be honest in self-evaluations. By using this process, the officer can learn a great deal about the member, their personal thoughts and priorities, and how to help them be better performers.

Promotional Process

None of the departments have any formal process for promotion to officer ranks. Education, experience, and other criteria should be developed in addition to the establishment of specific rank job descriptions. The department should use these criteria to develop a formalized, objective process to fill vacated ranks. This starts with developing complete job descriptions that include not only operational qualifications, but leadership/supervisory qualifications as well. Furthermore, the job descriptions should contain criteria as to the length of experience individuals must have – whether in this department or other fire departments – before being qualified for the position. The worst thing a department can do is hire or promote individuals who do not have the years of experience necessary for the position, even if it is only for a two-year period.

As part of the performance evaluation process, the goals section should encourage younger individuals who have an interest in moving into officer roles to obtain the skills and

qualifications necessary for the position. Thus, additional training in both operations and supervision should be encouraged.

Fire and police departments commonly use an assessment center for hiring and promotion. A team comprised of independent fire personnel, citizens, and/or members of the District board rank individuals who go through a series of tests. The vacancy is posted so that all internal and external applicants are eligible to apply. Through a screening process within the department, qualified applicants are allowed to test for the position. The tests combine operational and supervisory tasks relevant to the position. The team ranks the individuals from the best qualified to the least. The Fire Chief has the option of selecting from the individuals on the list after conducting an interview with the top candidates.

Individuals on the eligibility list can be used for acting positions because they have proved to have the skills and qualifications necessary. By filling in for absent members, those who ranked high on the list will be more experienced when the next opportunity occurs.

Fire Chief

The hiring of the Fire Chief is a critical appointment. Current practices of the three communities are as follows:

- The Gilbert Chief and Officers is elected by the membership every two (2) yrs.
- Eveleth has a three (3) year term for Chief and officers – selected by the Council.
- Fayal chief and officers are elected by the membership every other year.

The Fire Chief, in all three organizations are voted on by the membership and reports to City/Township administration. The Fire Chief accomplishes the strategic initiatives of the organization through people. He must direct and practice discipline (including recommendation of termination) when necessary to the very same members who elect him; the exception is City of Eveleth in which only the City Council can terminate. All three of these communities needs a process to ensure that the individual leading the fire department is not only capable but has the

authority to address the changes that challenge the department in difficult times. Many fire department resist change, and the first casualty is most often the Fire Chief upon moving from the status quo.

The appointment, rather than election, of the fire chief is essential, along with the authority to make changes, especially unpopular but necessary changes in the organization. For example: departments that have alcohol in the fire station, regardless of when it can be consumed, place the municipalities and the department in a liable position. The consultants are aware of several cases where the chief ordered the alcohol removed from the station only to be replaced at the next election by a chief who allowed alcohol back in the station. (Note: This is an example and none of the three-fire department have alcohol in the station at the time of the study.)

Thus, the consultants strongly recommend that the Fire Chief be appointed and report to the City/Township Administrator. The recruitment should be an objective process in which a job description that delineates the skills, qualifications and duties of the position. The process should be posted internally and advertised externally and an assessment center testing process conducted. The selected Fire Chief should be given a three-year contract. Renewal of the contract should be based upon achievement of the established goals and achievement of the performance expectations. The Township/City Administrator has the authority to hire and dismiss the Fire Chief.

Discipline

In order to operate effectively, all Departments need to set standards of performance and conduct that are reinforced by SOG's. Rules should be clear, concise and, above all else, fair. They should also be put in writing and made available to all members. Disciplinary procedures enable the Chief to ensure all members follow those rules and address issues fairly and consistently. Below is a summary of findings with the three (3) Departments:

> **Eveleth Fire Department** – has written disciplinary procedures outlining verbal, written, and Council review for other action within the Departments administrative guidelines.

Fayal Fire Department – no documents were located

Gilbert Fire Department – no documents were located

Discipline can also lead to legal issues for the Departments, particularly if discipline is inconsistent, or the basis for discipline is unlawful. For that reason, all Departments are recommended to develop a disciplinary policy and related procedures and standardized discipline template forms in which to follow. In addition, it is recommended all officer positions involved in the disciplinary process be trained on disciplinary processes.

Personnel Records

Personnel records have three (3) major functions in an organization. They provide a memory or recall to administration and member; they offer documentation of events for use in resolving questions or personnel related problems; and they provide data for research, planning, problem solving, and decision-making.

While federal, state, and local laws require that certain employee information be maintained, certain basic records should also be retained to avoid errors of memory and provide information for making management and personnel related decisions.

Documents related to personnel files are currently maintained as followed:

Eveleth Fire Department – All documents are maintained at City Hall; medical files are separated. Department keeps no records.

Fayal Fire Department – All payroll related documents and workers' compensation documents are maintained in the City Clerk's Office. Fire Chief retains all pre-employment and medical (non-workers comp) records.

Gilbert Fire Department – All payroll related documents are maintained in the City Clerk's Office. Fire Chief and Assistant Chief retains all other personnel and medical records.

Each Department maintains different records, and some of those records may contain medical information. This is increasingly problematic because Officers are elected periodically, so access

to these records changes. No retention/destruction policies were presented to the consultants during the Human Resource meetings; however, City of Eveleth indicated they have a City retention policy which would apply to the firefighters. In addition, at least one (1) Department is not effectively separating documents into different files, as required under the American's with Disabilities Act (ADA). The following illustrates which documents should be maintained and in what type of file. Organizations must differentiate between employee information and medical information and maintain these documents in separate files.

The contents of human resource files vary by organization, but most human resources professionals accept some practices as standard. The following provides a checklist of items that may be included in personnel files:

Main Employee File

- Offer/promotion/transfer letter(s)
- Application form
- Acknowledgement of SOP/employee manual
- Acknowledgement of new policies
- Orientation checklist
- Termination checklist
- Performance appraisals
- Official performance documentation (memos, letters, discipline, recognition, etc.)
- Payroll documentation (change of address, transfer)
- Training requests (with approval and/or denial documentation)
- Copies of certifications, licences, transcrits, etc.

Separate Payroll File

- W-4 form
- Group benefit enrollment forms (if applicable)
- Retirement system calculations/benefits
- Insurance claim forms
- COBRA letter sent at time of employment and termination and other mandatory notices (if applicable)
- Automatic payroll deposit authorizations
- Miscellaneous deductions

- Payroll documentation (change of address, transfer documentation, leave of absences, etc.)

Separate Medical File – Mandatory separation

- Initial physical documentation – agility, psychological, pre-employment, hearing, respiratory etc.
- Worker's compensation information (doctor reports, letters, etc.)
- On-going non-CDL drug and/or alcohol screening information (CDL screening mandates its own file
- Vaccination records and/or decline form
- Other medical tests results

Subject Files Kept Separate

- Child support garnishments
- DSS requests (Medicaid, etc.)
- Exit interview forms
- Other garnishments
- Immigration Control Form I-9 – (All organization documents are usually maintained together for auditing purposes)
- Investigation notes or reports
- Litigation documents
- Reference checks
- Requests for employment/payroll verification
- Wage assignments
- Worker's compensation claims

The official file for Fire Department members should be retained in Town/City Hall under the direction of the designated record custodian (Clerk or Administrator). The personnel files should have limited access and be kept in a secure filing cabinet. Access to the general file should be restricted to the records custodian. Only the records custodian and designated administrative personnel should have access to the medical file. The person performing payroll functions should have access to the payroll files. Chiefs and Officers involved in the promotion process should have limited access to information pertaining to potential officer candidates. Information should be limited to past performance evaluations, and if appropriate, past commendations and/or disciplinary notices.

The Fire Departments should maintain limited information regarding a member, and the information they have should be kept in a locked file with access only by the Chief. Information maintained in the Department files should be limited to copies of disciplinary actions and performance evaluations. All other information on an individual should be kept in the Town/Cities official file. Any employee with access to the Departments files should be trained on employee confidentiality.

Facilities

Eveleth Fire Department

The Eveleth Fire Department provides coverage to the City of Eveleth including a primary response area that encompasses approximately 7.5 square miles and approximately 3,929 residents. The fire department relates that not the entire response area is hydranted; rather, approximately an area of 3 miles by 1 mile has hydrants. The Eveleth Fire Department responds from one centrally located fire station. Eveleth Ambulance is co-located in the fire station and shares many of the resources available for personnel but are managed independently of the fire department and were not included in the scope of this study.

Figure 25: Eveleth Fire Hall

The Eveleth Fire Hall is located at 429 Jackson Street, Eveleth, MN 55734. The fire department provides no on-site staffing, but the building is occupied by Eveleth EMS personnel as staffing permits. The approximately 7,200 square feet, two-story non-combustible fire station was built in 1911 and shares a common fire wall with an auditorium owned by the City of Eveleth next door.

Over the years, the station has received significant remodeling, including the addition of a kitchen and day-room area on the lower level of the fire station that the Eveleth EMS personnel utilize on shift. There is no automatic fire sprinkler system, but there is a local fire alarm (smoke detectors) present throughout the facility. There is no backup generator present for the building.

The first floor of the station consists of the apparatus floor, day room for EMS personnel, radio room, and kitchen area. The second floor of the station consists of the Fire Chief's office, large training room, living quarters, and a second day room that is currently being remodeled by the fire department staff. The fire department had full-time staffing until 1989 and the living quarters provide for individual dorm rooms. After 1989, all members became Paid-On-Call. The living quarters appeared to be adequate and the department's efforts in modernizing the dorm rooms was present as televisions with cable TV access were recently added.

Accommodations were found to be equitable for any male or female personnel assigned to work out of the station. This includes sleeping quarters, locker rooms with restroom/shower facilities for men and women, kitchen, and a lounge area. A large office area was renovated to accommodate the EMS department's training and administrative needs by combining several dorms into one.

The apparatus floor has two non-drive-through bays with apparatus stacked in series. The overhead doors measure 12 feet high by 10 feet wide. The doors are controlled by both wall mounted switches and apparatus remote control devices. Modern fire apparatus width makes it very difficult to fit into an apparatus bay door that is only 10 feet wide. In many cases, the fire departments purchase custom apparatus which are more narrow than stock apparatus to accommodate their facility.

There was no OSHA approved NFPA 1500 – A.10.1.5 – 2018 edition emission exhaust system from the stored station apparatus or small motors operating in the station (see Appendix B). The floors have excess water drained off through a series of trench drains.

There is an air refill station for Self-Contained Breathing Apparatus (SCBA); however, the air-intake is not located outside as recommended by OSHA. Rather, the SCBA compressor air in-take is not isolated from apparatus floor contaminates:

Compressor & intake location crucial
It is important to provide fresh, uncontaminated air to the compressor's intake. Gross contamination of the intake air will affect the efficiency of the purification filters which could subsequently affect the air quality produced by the compressor. When dealing with a 500 ppm limit for CO2, assuring that the intake air quality is acceptable is especially important. As a point of interest, outside fresh air in most areas around the country is about 330 ppm. This is air unpolluted by vehicle exhaust or other outside factors.

Where compressors are used for supplying air, the compressor must be constructed and situated so contaminated air cannot enter the air-supply system. The location of the air intake is very important, and must be in an uncontaminated area where exhaust gases from nearby vehicles, the internal combustion engine that is powering the compressor itself (if applicable), or other exhaust gases being ventilated from the plant will not be picked up by the compressor air intake.
Source: *OSHA Technical Manual (OTM) Section VIII Chapter 2: Sub-section III Breathing Air Quality and Use: Section B: Other Specific Requirements*

The SCBA refill station is jointly owned by a regional coalition of fire departments in the area and is housed at the Eveleth Fire Department. The coalition provides for the annual maintenance and testing fees of the system. Proper documentation and hydrostatic testing on all tanks was found to be in order. However, the refill station is not equipped with an approved explosion proof filling station.

There is a fire pole from the second floor to the first, but the floor area around the pole was cordoned off. The consultants recommend that the pole should be removed for safety concerns and its opening covered.

Recommendation – Eveleth Fire Facility & Apparatus

- *The fire pole (which is out of service) should be removed and the 2nd floor opening permanently closed.* ***Priority 3***

- *The fire station should be equipped with an OSHA approved vehicle emission exhaust removal system which accomplishes 100% capture and removal of exhaust emissions to the outside. (reference Appendix B)* ***Priority 2.***

- *The SCBA compressors for filling air bottles air-intake should be renovated so that outside air is drawn into the compressor eliminating potential contaminated air within the facility.* ***Priority 2***

- *The fire/ambulance facility should be protected by an automatic fire suppression system (sprinklers) which transmits a signal to an outside monitoring source.* ***Priority 2***

Fayal Fire Department

The Fayal Fire Department provides coverage to the Town of Fayal including a primary response area that encompasses approximately 36 square miles and approximately 1,900 residents. The fire department relates that approximately 6 square miles of primary response area is hydranted, with the remaining 30 square miles non-hydranted. The Fayal Fire Department responds from one centrally located fire station, adjacent to the Town Hall.

Figure 26: Fayal Fire Hall

The Fayal Fire Hall is located at 4375 Shady Lane, Eveleth, MN 55734. The fire department provides no on-site staffing. The approximately 4,000 square feet, one-and-a-half-story pole barn style fire station was built in 1986 and shares a common campus with the Fayal Town Hall and Fayal Department of Public Works buildings.

There is no automatic fire sprinkler system, but there is a local fire alarm (smoke detectors) present throughout the facility. A liquid propane (LP) fed generator provides backup power to the Town Hall and primary fire department building and is estimated to power approximately 50% of the building under load. The fire department occupies a single stall of the DPW building, approximately 100 feet away from the primary fire department building.

The first floor of the station consists of the apparatus floor, a small decontamination area with a photocopier and soda machine, and a radio room with a desktop computer for fire department administration. A unisex bathroom with a shower is also present on the first floor. The second floor of the station consists of a small training room and kitchen area. There are no living quarters present in the station.

The apparatus floor has three non-drive-through bays with apparatus backed in. The overhead doors measure 14 feet high by 14 feet wide. The doors are controlled by both wall mounted switches and apparatus remote control devices. There was no air ventilation system present to remove exhaust gases from the apparatus from the building. The floors have excess water drained off through a series of trench drains.

There is an air refill station for Self-Contained Breathing Apparatus (SCBA) which is vented to the outside for air intake. Proper documentation and hydrostatic testing on all tanks was found to be in order. The refill station is equipped with an approved explosion proof filling station.

Fayal Fire Hall Auxiliary Bay

Adjacent to the fire hall is an auxiliary bay for additional apparatus storage.

Figure 27: Fayal Auxiliary Bay

Recommendation – Fayal Fire Hall

- *The fire hall should be equipped with an OSHA approved vehicle emission exhaust removal system which accomplishes 100% capture and removal of exhaust emissions to the outside. (reference Appendix B)* ***Priority 2.***

- *The fire hall facility should be protected by an automatic fire suppression system (sprinklers) which transmits a signal to an outside monitoring source.* ***Priority 2***

Gilbert Fire Department

The Gilbert Fire Department provides coverage to the City of Gilbert including a primary response area that encompasses approximately 12.86 square miles and approximately 1,799 residents. The fire department relates that approximately 7 square miles are hydranted. The Gilbert Fire Department responds from one centrally located fire station.

Figure 28: Gilbert Fire Hall

The Gilbert Fire Hall is located at 16 S. Broadway, Gilbert, MN 55741. The fire department provides no on-site staffing. The approximately 4,000 square feet, one-story non-combustible fire station was built in approximately 1993 and is co-located with both the Police Department and City Hall in one large complex.

There is limited fire department parking in front of the building. The station is quite dated and appears to have had minimal remodeling over the years, but is still highly functional for the purpose of a low-volume fire station. There is no automatic fire sprinkler system and no local fire alarms (smoke detectors) were noted in the facility. There is no backup generator present for the building.

The first floor consists of the apparatus floor, Fire Chief's office, kitchen area, training room, day room and restroom facilities. There are separate men's and women's restroom facilities with showers. There are no living quarters present in the station. The apparatus floor has two non-drive-through bays with apparatus stacked in series. The overhead doors measure 12 feet high by 24 feet wide. The doors are controlled by both wall mounted switches and apparatus remote control devices.

There was no emission exhaust system present to remove exhaust gases from the apparatus from the building. The floors have excess water drained off through a series of trench drains. There is an air refill station for Self-Contained Breathing Apparatus (SCBA), but the bottles must be filled off-site. The bottles are owned by a third-party gas supplier. Proper documentation and hydrostatic testing on all tanks was found to be in order. However, the refill station is not equipped with an approved explosion proof filling station.

Gilbert Fire Hall Recommendations:

- *The fire hall should be equipped with an OSHA approved vehicle emission exhaust removal system which accomplishes 100% capture and removal of exhaust emissions to the outside. (reference Appendix B)* ***Priority 2.***

- *The fire hall facility should be protected by an automatic fire suppression system (sprinklers) which transmits a signal to an outside monitoring source.* ***Priority 2***

Apparatus

As a general rule, the number of apparatus/vehicles required under a consolidated model would be reduced, mainly as a consequence of the new flexibility gained by a unified command staff to control a larger overall fleet and to strategically deploy apparatus as a single department. For example, the need for reserve vehicles at each individual station would be eliminated because one reserve apparatus could be deployed in any of the three communities.

Odometers vs. Engine Hour Meters

An hour meter is a gauge or instrument that tracks and records overall elapsed time that the engine is actually running and is normally displayed in hours and tenths of hours. The table of each community's "Fire Apparatus" lists the apparatus/vehicles that have both odometers and engine hour meters.

The majority of hour meters are used to log running time of equipment to assure proper maintenance of expensive machines or systems. This maintenance typically involves replacing, changing or checking parts, belts, filters, oil, lubrication or running conditions in engines, motors, blowers, and fans, to name a few.

Fire trucks, ambulances, and police cars may all have significantly higher running times (hours) compared to mileage. Fire trucks can be running for hours at the scene without clocking a single mile. If maintenance is performed on these vehicles based on odometer readings only, engine life may be affected. Maintenance personnel understand the wear issues surrounding a vehicle's engine hour time compared to road miles; therefore, elected officials and stakeholders should not base replacement needs solely on apparatus/vehicle appearance and mileage but take into account all factors including engine hours.

Apparatus Maintenance

It must be recognized by each department as to the importance of maintaining detailed, lifelong, records of fire apparatus. Preventative maintenance, thorough diagnostics, as well as quality

repairs were generally found to be a commitment made by each of the department's studied toward the fire apparatus. It was further found to be understood that not only does the documentation need to show what work was specifically performed, but that it must accurately reflect all parts, costs, and relationship to the overall vehicle or tool. This documentation may very well need to be produced in the event of an injury, death, or accident involving of a particular piece of equipment or apparatus.

Sufficiency of Apparatus

Sufficiency of apparatus can be considered in two divergent ways: the ***amount*** of apparatus and its ***capability***. The consultants have observed fire departments that have an abundance of apparatus, often resulting in apparatus that is rarely, if ever, deployed; or, more apparatus than the department is able to staff. In other instances, departments are under-equipped and/or the apparatus is lacking the tools required to perform tasks on the emergency scene.

At this time, it appears that the *amount* of apparatus in each community's inventory is appropriate as it currently sits. It was recognized that a plan was in place to maintain and utilize spare apparatus appropriately, but caution must be observed as to amounts and quality of such apparatus. The cost benefit of maintaining excessive apparatus must be considered.

Eveleth Fire Department Apparatus

This section provides an overview of the entire fleet of apparatus and vehicles utilized in providing fire protection for the City of Eveleth. The maintaining of emergency apparatus in top condition is a very crucial aspect in assuring the readiness and performance of the fleet. The table below illustrates the current apparatus owned by the City of Eveleth:

Table 19: Eveleth Fire Department

Apparatus ID	Manufacturer	Apparatus Type	Year	Mileage	Hours	Pump	Tank
Engine 1	Spartan	Engine	2013	12,056	753	1,250	1,000
Engine 2	General	Engine	2001	12,028	1,082	1,250	1,000
240	Ford	Brush Truck	1999	13,229	N/A	250	250
241	Alexis	Rescue	2004	4,083	763	N/A	N/A
242	Ford	Utility	2000	53,020	N/A	N/A	N/A

The Eveleth Fire Department currently outsources all of their maintenance on department vehicles and apparatus to several vendors in the area. Any deficiencies noted on the monthly apparatus vehicle checks or otherwise identified are ultimately reported to the Fire Chief. Annual pump testing is performed by Kirvida Fire Inc. (15570 Scandia Trail N, Scandia, MN 55073).

Small engine repairs are generally performed in-house, but are outsourced to local vendors if the repair exceeds the knowledge, skills or abilities of employees. Fire apparatus is fueled at local gas stations in the community.

Eveleth Fire Department Apparatus Condition

The consultants found that all fire apparatus appeared to be in good condition and outfitted with tools and equipment as outlined per the NFPA 1900 standard, as well as the Insurance Service Office (ISO) 2018 *Fire Suppression-Rating Schedule*. The equipment stocked on the various apparatus also appeared to be in good functional order. Department staff, however, related that the extrication equipment carried on Rescue #241 was dated and in need of replacement.

Fayal Fire Department Apparatus

This section provides an overview of the entire fleet of apparatus and vehicles utilized in providing fire protection for the Town of Fayal. The maintaining of emergency apparatus in top condition is a very crucial aspect in assuring the readiness and performance of the fleet. This section will provide the reader with an understanding of the condition, readiness, and maintenance procedures for the department's apparatus.

The table below illustrates the apparatus/vehicles currently in-service in the Town of Fayal:

Table 20: Fayal Fire Department Apparatus

Apparatus ID	Manufacturer	Apparatus Type	Year	Mileage	Hours	Pump	Tank
Engine 91	Pierce	Engine	1991	22,140	1,684	1,250	1,000
Engine 2	International	Engine/Tender	2006	9,670	105	1,250	2,000
Tender 1	International	Tender	2018	370	20	500	2,400

Apparatus ID	Manufacturer	Apparatus Type	Year	Mileage	Hours	Pump	Tank
Engine 3	Ford F350	Brush Truck	2000	12,297	N/A	18 HP	400
Squad 1	GMC 3500	Squad	2016	9,403	N/A	N/A	N/A
Trailer	American	Rehab Trailer	2005	N/A	N/A	N/A	N/A
Boat	Kodiak	Inflatable Boat	2015	N/A	N/A	N/A	N/A
UTV	Polaris	UTV	*	N/A	N/A	N/A	N/A

** Polaris UTV year is unknown*

The Fayal Fire Department currently outsources all of their maintenance on department vehicles and apparatus to several vendors in the area. Deficiencies noted on the monthly apparatus vehicle checks or otherwise are ultimately reported to the Fire Chief. Annual pump testing is performed by Kirvida Fire Inc. (15570 Scandia Trail N, Scandia, MN 55073).

The department administration related that apparatus are inspected annually by MacQueen Equipment (1125 7th Street East, St. Paul, MN 55106), who also perform any major repairs that are necessary. Small engine repairs are generally performed in-house, but are outsourced to local vendors if the repair exceeds the knowledge, skills or abilities of employees. Fire apparatus is fueled on-site using Township provided fuel pumps.

Fayal Fire Department Apparatus Condition

The consultants found that all fire apparatus appeared to be in good condition and outfitted with tools and equipment as outlined per the NFPA 1900 standard, as well as the Insurance Service Office (ISO) 2018 *Fire Suppression-Rating Schedule*. The equipment stocked on the various apparatus also appeared to be in good functional order.

Gilbert Fire Department Apparatus

This section provides an overview of the entire fleet of apparatus and vehicles utilized in providing fire protection for the City of Gilbert. The maintaining of emergency apparatus in top condition is a very crucial aspect in assuring the readiness and performance of the fleet. This section will provide the reader with an understanding of the condition, readiness, and maintenance procedures for the department's apparatus.

The table below illustrates the current apparatus/vehicles in-service for the Gilbert Fire Department.

Table 21: Gilbert Fire Department Apparatus

Apparatus ID	Manufacturer	Apparatus Type	Year	Mileage	Hours	Pump	Tank
Engine 1	International	TeleSquirt	1984	9,626	736	1,000	300
Engine 2	International	Engine	1999	13,113	930	1,250	1,000
Truck 1	Ford F550	Brush Truck	2015	1,282	N/A		275
Truck 2	Ford F350	Utility	2005	6,362	N/A	N/A	N/A

The Gilbert Fire Department utilizes the City mechanic to perform light repairs. However, if major repairs are needed, the department related that they will outsource the work to the apparatus dealer. Deficiencies noted on the monthly apparatus vehicle checks or otherwise identified are ultimately reported to the Fire Chief. The Fire Chief related that annual pump testing is not conducted. The Fire Chief further related that the 1984 TeleSquirt (Engine 1) recently had the mast bolts retorqued, but no ladder test has been conducted.

Small engine repairs are generally performed in-house, but are outsourced to local vendors if the repair exceeds the knowledge, skills or abilities of employees. Fire apparatus is fueled locally at a facility that the City of Gilbert has a contract with.

Gilbert Fire Department Apparatus Condition

The consultants found that each piece of fire apparatus appeared to be in fair to good condition and outfitted with tools and equipment as outlined per the NFPA 1900 standard, as well as the Insurance Service Office (ISO) 2013 *Fire Suppression-Rating Schedule*. The equipment stocked on the various apparatus also appeared to be in good functional order.

Apparatus Replacement

Fire apparatus, like all types of mechanical devices, have a finite life. How long that life may be depends on many factors such as mileage, engine hours, quality of the preventative maintenance

programs, technology advancements, quality of the driver training program, rule enforcement, quality of the original builder and components, availability of parts, and custom or commercial chassis, ability of the district to generate funding, general appearance, etc.

Over the years, the NFPA has attempted to define life expectancy of apparatus with little success. However, under the 2016 edition of NFPA 1901, a new Annex D, titled Guidelines for First-Line and Reserve Fire Apparatus was added which discussed apparatus built prior to 1991. Section D.1 discusses minimizing the risk of injuries to firefighters and improvements in safety features that have been instituted since 1991. The guideline further states that new safety upgrades and innovations are not generally found in units built prior to 1991; therefore, this standard recommends that apparatus built to NFPA 1912, Standard for Fire Apparatus Refurbishing, be adhered to.

Another significant factor in equipment replacement worth re-emphasizing, as outlined in the NFPA standard, is the rapidly changing area of technology, much of which is directly related to firefighter safety. Based on this factor, apparatus technology becomes an issue when considering replacement. The NFPA recommends apparatus older than 15 years should be considered for reserve status only if the following NFPA standards have been followed: required maintenance of the vehicle being adequately maintained, and the overall condition of the vehicle has been determined to be safe. Apparatus that were not manufactured to the applicable NFPA fire apparatus standard or that are over 25 years old should be replaced.

Apparatus / Vehicle Replacement Schedule

The Fayal Fire Department provided the consultants with a scheduled capital replacement plan. Eveleth and Gilbert Fire Department administration related that the department currently does not operate with a scheduled capital replacement program. Rather, apparatus is replaced as needed when the cost of repair outweighs the practicality of keeping the unit in service. Based on the general call volume of each department, whether operating separately or as a combined fire district, the following chart is offered as a recommended guideline for replacing apparatus:

Table 22 :Recommended Apparatus Replacement Plan

Type of Apparatus	Recommended
Engine/Pumper	20 years – 5 years reserve
Aerial/Tower	25 years
Tender/Tanker	20 years – 5 years reserve
Auxiliary Vehicles	As Needed
Cars/Pick-ups/SUVs	As Needed

Ladder Testing

The service testing of fire department ground ladders is enumerated in *NFPA 1932: Standard on Use, Maintenance, and Service Testing of In-Service Fire Department Ground Ladders (2015).* Section 7.1.6 relates that service testing must be performed before the ladder is placed in service, at least annually, at any time a ladder is suspected of being unsafe, after the ladder has been subjected to overloading, after the ladder has been subjected to impact loading or unusual conditions of use. The previous list is not exhaustive of the NFPA requirements. However, records must be maintained for the life of the ladder. The quantitative ladder testing is generally performed by a third-party vendor who has the equipment and knowledge to safely perform these tests.

Apparatus Ground Ladder Testing Records Concerns:

- **Fire Departments:** All three departments were unable to provide quantitative ground ladder test records indicating inspection or quantitative service testing.

Recommendation – Ladder Testing

- *Fire department administrators must ensure that ladders are tested in accordance with NFPA 1932.* ***Priority 3***

Hose Testing

The service testing of fire department hoses is enumerated in *NFPA 1962: Standard for the Care, Use, Inspection, Service Testing, and Replacement of Fire Hose, Couplings, Nozzles, and Fire Hose Appliances (2018).* Section 4.1.3 relates that service testing shall be performed before the hose is placed in service for the first time and annually. Section 4.11.1.2 relates that each hose be

assigned an identification number for use in recording its history throughout its service life. Furthermore, the standard relates, records must be maintained for the service life of the hose which is described in detail in Section 4.11.1.5. Hose testing is generally performed within most smaller departments such as Eveleth, Fayal, and Gilbert, but there are third-party vendors who perform this task and maintain the records, freeing valuable volunteer time to perform other necessary training tasks.

Hose Testing Record Concerns:

- **Eveleth Fire Department:** The department was unable to provide detailed records of hose testing. However, department administration related an interest in using a third-party vendor (FireCatt Inc.) to perform this test.

- **Fayal Fire Department:** The department provided a computerized record of the 2017 service testing but was unable to provide comprehensive documentation consistent with the NFPA 1962 standard.

- **Gilbert Fire Department:** The department was unable to provide detailed records of hose testing.

Recommendation – Hose Testing

- *Fire department administrators must ensure that fire hose is tested in accordance with NFPA 1962.* ***Priority 3***

Training

Effective and quality training within a fire department is at the core of preparedness and readiness to meet the requirements necessary to provide emergency services in a safe and efficient manner. Without such training, a department may very well undoubtedly fall short when called upon to deal with operational emergencies. Supporting and maintaining such a training program within the department is an important aspect of risk management as well as potentially lessening exposure to injury for its firefighters.

Providing adequate, interesting, and informative training sessions to fire department personnel can be very challenging and difficult for fire training officers to deal with. The amount of time needed to adequately train department members to ensure competency, coordination, while maintaining proficiency with skills, is one of the biggest challenges faced by department officials. Training is a major factor in provider's safety as well as attaining desired results on the emergency scene.

Emergency providers perform to the level they are trained, typically under times of extreme danger and stress. The statement ***"How you train is how you will perform on the emergency scene during an emergency"*** describes the absolute need for providing an effective training component within a fire department.

Training Overview

Eveleth, Fayal, and Gilbert Fire Departments are volunteer/paid-on-call organizations that provide training and educational programs to their members that work toward assuring a state of readiness and preparedness to carry out its mission. The ultimate authority and overall responsibility for developing effective methods of extinguishing and preventing fires does in fact lie with the Fire Chief of each respective department.

Although it is common for each department to request aid from the other two departments named in this study on fire calls, each continues to develop their own training programs and curriculums

independent of the other departments. At the emergency scene a single command officer might have a team of firefighters comprised of members from different departments performing a single tactic; however, each department train independently and not from the same training curriculum. Obviously, if members of a single suppression team have been trained under different curriculums and different standards, their safety is at a greater risk when placed in a situation where they must function as a unified team in a hostile environment. It cannot be emphasized strongly enough that training together is perhaps the best method of ensuring members' safety.

Additional opportunities for fire training exist through a local junior college facility. The Mesabi Range College offers a wide variety of fire and rescue related training. Each fire department being studied supports and encourages such training; however, little documentation could be found to support actual participation.

Eveleth Fire Training

The Eveleth Fire Department provided training records for 2015, 2016, and 2017. There are several opportunities for training each month within the organization as illustrated in the table below:

Table 23: Eveleth FD Monthly Training Schedule

Eveleth Monthly Training	
1st. Wednesday	Truck Check
2nd. Wednesday	Training
3rd Wednesday	Regional Training
4th Wednesday	Make-up Classes

Truck check are not normally listed at training, however, in a volunteer/paid-on-call department they are very advantageous. Not only do the members familiarize themselves with the equipment, they ensure the equipment is present, in operational order, and in certain cases can train on the equipment. The third Wednesday of the month is regional training usually hosted by the Virginia Fire Department who invites numerous area departments to participate. The Virginia

Fire Department training curriculum is very comprehensive and the consultants believe it is advantageous for members of the three department to participate.

Eveleth Fire Training Calendar

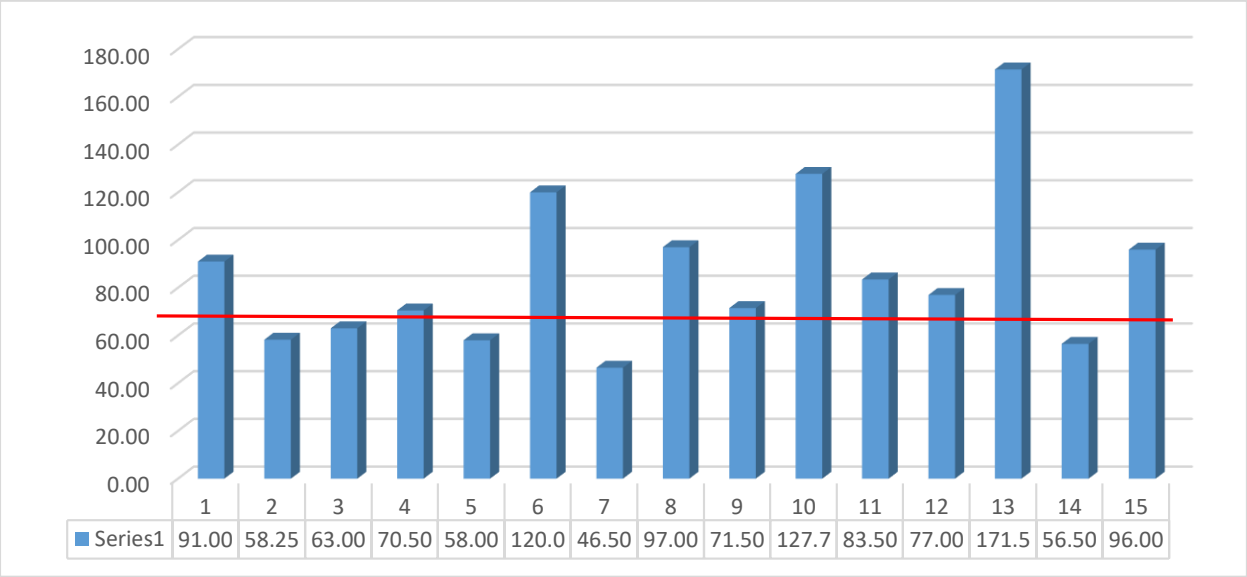
The department publishes a monthly training calendar containing various subjects assigned to be taught throughout the department for that particular month. Training topics for 2017 included: Bloodborne Pathogens, Hazardous Materials, Right to Know, Building Construction, Fire Flow Path, Wildland Firefighting, Live Training Burns, Pumping, Engine Operations, Driving, Ropes and Knots, and Chimney Fires.

The topics trained on are appropriate for a department of Eveleth's size. The department was unable to provide specific lesson plans used for the delivery of training; however, it was apparent from training records that considerable emphasis is placed on training.

Eveleth Training Hours – 2017

The department provided three years of comprehensive training records all recorded by hand on a training sheet. All three departments would benefit from recording training and certification levels on a single software program accessible for easy calculations. The consultants tracked by hand, the training hours for each member for the year 2017 as illustrated in the figure below.

Figure 29: Eveleth Members Training Hours – 2017



There were 15 members that had training documentation for all 12 months. Five members had partial year, either left the department or joined the department sometime in 2017, These members were not included in the above figure. Members were assigned numbers at random, therefore, other than the member themselves, one could not determine who is number 1, 5, 11, etc.

If each member were to record 6 hours of training per month, they would accumulate a minimum of 72 hours per year (represented by the red line in the figure). As the figure above illustrates, 2/3 of the members accomplished that mark. The leadership of the fire department should be commended for the emphasis placed on training.

Certification Levels

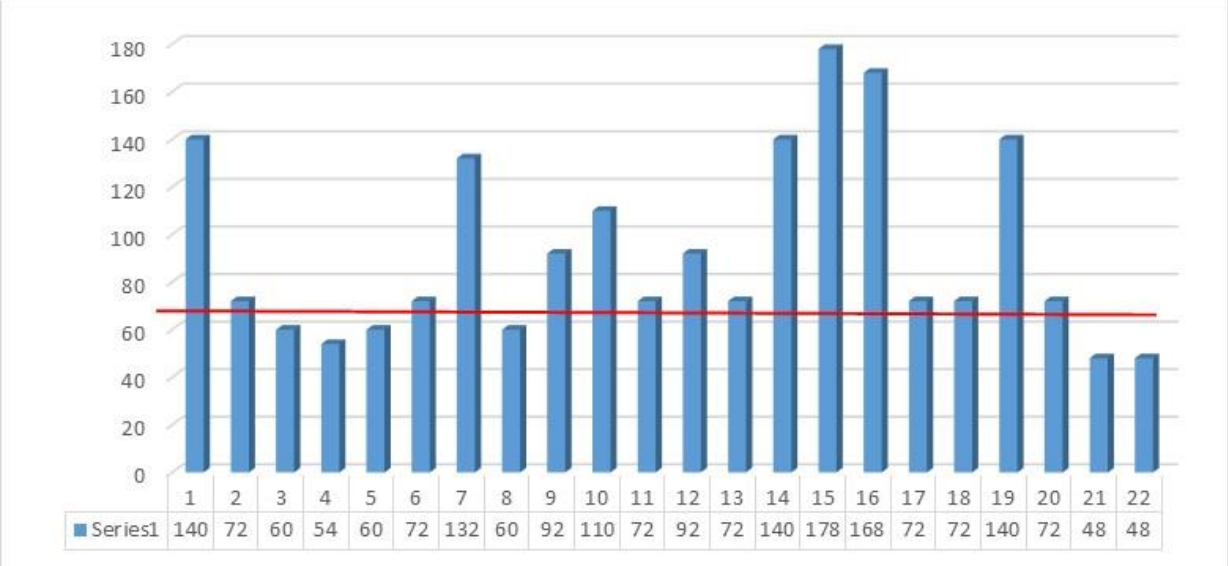
Eveleth Fire Department indicated that all members are certified at the State of Minnesota as Firefighter I and Firefighter II levels.

Fayal Fire Department

The department provided 22 members training hour totals for 2017. The data provided did not include a breakdown of subject matter; however, there were 790 hours of in-house training and

additional 522 off-site training. In addition, there are two certified training instructors on the department.

Table 24: Fayal Members Training Hours – 2017



If each member were to record 6 hours of training per month, they would accumulate a minimum of 72 hours per year (represented by the red line in the figure). The table illustrates that 72.7% of the department exceeded six hours of training per month.

All three departments would benefit from recording training and certification levels on a single software program accessible for easy calculations. The consultants tracked by hand the training hours for each member for the year 2017 as illustrated in the figure below:

Certification Levels

The Fayal Fire Department indicated the following members had State certification as illustrated below.

Table 25: Fayal Certification Levels

Fayal FD Certifications	
Certification	**Members**
Firefighter II	21
Firefighter I	1
Instructor	2
NIMS 100 - 800	22

In order to receive State certification for Firefighter II, one must successfully pass the curriculum for Firefighter I.

Gilbert Fire Department

The Gilbert Fire Department did not provide any training or certification records for 2015, 2016, or 2017, which left the consultants unable to review or make recommendations on the quality of the training program.

The Liability of Poor Training

With an increasingly litigious society, the liabilities associated with poor training and/or poor documentation of that training are enormous. Within the last decade, there has been an increased tendency for municipalities/districts to be stripped of their immunity protection when dealing with an employee's injury or death. It is hoped that none of the three fire departments ever experiences a firefighter's line-of-duty death. However, in the event of such an occurrence or a serious line-of-duty injury, a large number of state and federal agencies would conduct independent investigations. At a minimum, the fire department and municipality would need to provide the investigators with the following:

- *Documentation that the individual received training in the evolution(s) in which the death/injury occurred.*
- *Comprehensive curriculum and lesson plan of the training topic.*
- *Attendance sheet with the individual's signature indicating he/she attended – not a list of member's names with a check-off box.*
- *Record of the instructor's qualifications to teach the topic.*

- *Competency documentation showing how the department measured the ability of the individual to safely perform the task in which he or she was injured.*

- *Historical record showing how frequently this topic was instructed and what other topics supported a safe environment under the conditions found at the accident scene.*

In the event of a serious accident or line-of-duty death, lack of such documentation could result in fines from both state and/or federal agencies, as well as leave the fire department and perhaps even the municipality/board open to serious civil litigation.

In addition, the following should be recorded into the record management system: date of the training, time and duration of the training, class objectives, audio/training aids utilized, training participant's feedback, notes or comments by the instructor on how the training could be improved.

Lesson Plans:

Lesson plans should contain, at a minimum, the following components as listed in the table below:

Table 26: Lesson Plan Components

Lesson Plan Components	
1	Class/Drill Title/Location
2	Instructors Name/Qualification
3	Material Needed for Class/Drill
4	Lesson Plan
5	Goal
6	Learning Objectives
7	Reference to Curriculum Utilized
8	Time Required
9	Lesson Preparation
10	Lesson Outline
11	Method t Ensue Competency
12	Instructors qualifications
13	Participant Signature (not a check sheet)

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10	Lesson Outline
11	Method to Ensure Competency
12	Instructors Qualifications
13	Participant Signature (not a check sheet)

Supervisor (Fire Officer) Training

None of the three departments studied currently conduct specific supervisor (Fire Officer) training on a regular or consistent basis. The table below illustrates suggested training topics appropriate for line officers (including acting officers) through the rank of Fire Chief:

Table 27: Officer Training Program

Training - Supervision Topics	
Principle of Supervision	Managing Change
Management vs. Leadership	Diversity
Supervisor: Linking Pin Concept	Problem Solving
Ethics	Managing Differences
Dealing with Conflict	Managing Multiple Projects
Legal	Time Management
- Harassment	Delegation
- Discrimination	Performance Management
- Job (race, religion, sex or national origin)	- Documentation
- Age	- Evaluations
- Disability (Americans with Disabilities Act)	Employee Attitudes
- Military	- Coaching
- Fair Labor Standard Act (FLSA)	- Motivation
- Family Medical Leave Act (FMLA)	- Empowerment
- Gender-pay differences	- Influencing
- Pregnancy	- Discipline

- Immigration	Confidentiality
- Sexual Orientation	Strategic Thinking
Workplace Safety	Political Savvy
Communication	Negotiating
Interpersonal Relationships	Creativity
Team Building	Innovation

ISO and Accreditation

The Insurance Service Office classification of municipality might influence insurance rates both residential and commercial. The Insurance Services Office (ISO) has made revisions to its Fire Suppression Rating Schedule, including changes to required training for fire departments. These modifications impact the number of hours needed for ISO-related training topics.

The breakdown of ISO's new requirements is highlighted below:

- **Company Training:** ISO is now calling for 16 hours per month for a total 192 hours per year. This is a reduction from 20 hours per month and 240 hours per year that were previously required.

- **Hazardous Materials Training:** ISO is now requiring six hours per year, which is up three hours from previous years.

- **Driver Training:** There have been no changes to the number of hours required for this category. Departments are still expected to have personnel complete 12 hours per year.

- **New Driver Training:** ISO has added 20 hours of training to this category. Personnel are now in need of 60 hours per year, up from 40.

- **Officer Training:** The Officer Certification Requirement remains steady at 12 hours per year.

- **Recruit Training:** Personnel, who automatically get credit if their department requires state certification as an employment pre-requisite, are required to complete 240 hours. This number is unaffected by ISO's recent changes.

- **Facility Training:** This category, referring to training done at a training facility, is no longer called "Training Drills." Personnel are now required to complete 18 hours per year, which was reduced from 24 hours.

- **Pre-Planning Review:** ISO is now requiring one review per year. In previous years, this was a bi-annual requirement.

- **ISO's revisions:** are now more aligned with NFPA standards.

Volunteer/paid-on-call fire departments would be hard press to mandate 240 hours of training for each member; inasmuch as few members could donate that amount of hours commitment to the organization. Therefore, it is highly encouraged that volunteer/paid-on-call record as many hours as possible without driving members away from the organization. Therefore, it is highly unlikely that a volunteer/paid-on-call department would receive full credit for training.

With that said, ISO had in the past given partial credit for training when poor documentation was found. The new approach for ISO is to not give any credit unless there is documentation of that training. All three departments are encouraged to adopt a single training curriculum, train together (realize there is a conflict of nights) and record that training in a software program from which data can be queried.

Recommendation – Training (all three departments)

- *A minimum of one night a month should be a training class/drill with all three fire departments requiring attendance of their members.* ***Priority 2***

- *All three fire departments should purchase and record <u>all</u> fire department activities on a single data management system common to all three departments.* ***Priority 3***

- *Training documentation should be part of the data management system of the department, with all training records, classes, etc. recorded completely. The system should allow for the complete retrieval of an individual's training history.* ***Priority 3***

- *Quarterly, all fire department officers should attend a single officers training session in which standards of operations should be unified.* ***Priority 2***

Fire Prevention / Public Safety Education

Minnesota has adopted the 2015 Minnesota Fire Code, based off of the 2012 edition of the International Code Council's *International Fire Code*. The Minnesota Fire Code incorporates other national consensus standards such as portions of NFPA 101, also known as the *Life Safety Code*. The State Fire Marshal's office is charged with providing oversight of the enforcement of the Minnesota Fire Code, fire prevention, and fire safety throughout the State. However, the day-to-day tasks often trickle down to the Fire Chief or his/her designee as a direct extension of the State Fire Marshal and the vested power given to the position via state statutes.

The local fire prevention services provided vary widely in small departments and small communities, in the consultant's experience. Many volunteer fire departments provide limited services, often related to interaction with school age children during the national annual Fire Prevention Week in October. Building pre-planning and inspections are frequently informal or non-existent.

The importance of good pre-fire planning is paramount in providing much needed information, which may not be readily available during emergency situations. Shown below are examples of such information made available through such planning and is strongly recommended by the consultants:

- *Owner and key holder contact information*
- *Occupancy information*
- *Access points keyed and forcible entry*
- *Special hazards*
- *Type of construction*
- *Available water supply*
- *Building protection systems and their location*
- *Utilities, including the location of shut-offs*
- *Exposures*
- *Special resource considerations*
- *Technical rescue exposures*
- *Hazardous materials presence*
- *Particular life hazard issue*
- *The presence of lightweight trusses in construction*

- *Other potential dangers or issues to be made aware of*

Fire Inspections

Local fire departments have a vested interest in ensuring that commercial occupancies in their jurisdiction are using sound fire prevention practices. The frequency of fire inspections is often left to each individual State to determine with some, like the State of Michigan, leaving the decision to the local authority having jurisdiction, to others, like the State of Wisconsin, which requires most departments to inspect commercial occupancies once every six months. Minnesota has no compulsory requirement for communities or fire departments to conduct fire inspections. Currently, the Eveleth, Fayal, and Gilbert Fire Departments **do not** perform these services in any of the three communities. Rather, the State Fire Marshal's office is left to statutorily inspect all correctional facilities, day care/foster care, health care, hotel/motel, residential care facilities, and schools.

Fire Investigations

Minnesota Statute 299F.04 grants statutory authority to the Fire Chief to investigate the cause and origin of all fires occurring within the jurisdiction. The Eveleth, Fayal and Gilbert Fire Departments, like many small organizations, do not respond to a large number of fires necessary to maintain competency in conducting its own fire investigations. Therefore, the departments currently rely on the State Fire Marshal's office to conduct fire investigations of a suspicious or unknown origin. Each of the three department administrations have indicated they openly work with insurance company fire investigators by providing documentation and personnel support when necessary. These practices align with similar size organizations that the consultants have worked with in the past.

Community Risk Reduction

The modern fire service organization should develop targeted programming to various demographics of the community. At the time of this writing, the Eveleth and Fayal Fire Departments indicated that they work together to provide fire prevention activities to school age

children during Fire Prevention Week in October. Department administrators for both departments provided sample flyers that have been used in the past to generate interest among teachers within the Eveleth-Gilbert school district. Similarly, the Gilbert Fire Department related that they, too, provide fire prevention activity programming to school age children in the schools within their response area, also within the Eveleth-Gilbert school district. However, none of the three departments could provide quantitative data that indicated the number of children contacted during these activities or any pre- or post-testing that has taken place.

Recommendations – Fire Prevention & Public Safety Education

- *Encourage staff to seek Fire Inspector I training and create an inspection program that both pre-plans and formally inspects commercial occupancies in each community at least once a year.* ***Priority 2***

- *Implement a Community Risk Reduction program specific to the targeted needs of the community rather than merely focusing on Fire Prevention Week activities in October.* ***Priority 4***

- *During educational opportunities, obtain quantifiable data including the number of residents, children, etc. impacted by the delivery of a program.* ***Priority 3***

Fiscal

All three fire departments reimburse their members differently and if consolidation is to take place, it will necessitate standardizing. However, the budget preparation process is similar in all three departments.

Budget Process

The responsibility for development of the budget, both Capital and Operations, is the responsibility of the Fire Chief. After the development of the budget, it must be approved by the City Council or Town Board.

Employee Reimbursement

Employee reimbursement is discussed in detail in the Human Resources section of this report. Although the department refers to their members as volunteers they actually do get reimbursement for calls and in some departments as well for training. In addition, officers are given a stipend for their position, which varies between departments as illustrated in the table below:

Table 28: Members Reimbursements

Reimbursement Rate	Eveleth	Fayal	Gilbert
Call 1st. Hour	$ 7.00	$ 10.00	$ 16.00
Call Each Additional Hour	$ 7.00	$ 5.00	$ 8.00
Training Rate Per Hour	$ 5.00	$ -	$ 8.00
Additional Per Call Engineers	$ -	$ -	$ 5.00
Call Additional Per Hour *Captains* - 1st Hour	$ -	$ -	$ 16.00
Call Additional Per Hour *Captains* -Each Additional Hour	$ -	$ -	$ 8.00

In addition, officers receive the following stipends for their rank within the department as illustrated in the table below:

Table 29: Member's/Officer's Stipends

Eveleth Fire Department		
Position	**Stipend per Month**	**Annual Stipend**
Fire Chief	$ 500.00	$ 6,000.00
Deputy Chief	$ 290.00	$ 3,480.00
Captain	$ 150.00	$ 1,800.00
Captain	$ 150.00	$ 1,800.00
Lieutenant	$ 75.00	$ 900.00
Lieutenant	$ 75.00	$ 900.00
Totals	***$ 1,240.00***	***$ 14,880.00***

Fayal Fire Department		
Position	**Stipend per Month**	**Annual Stipend**
Fire Chief	$ 100.00	$ 1,200.00
Asst Chief	$ 70.00	$ 840.00
Batt. Chief	$ 70.00	$ 840.00
Captain	$ 60.00	$ 720.00
Lieutenant	$ 60.00	$ 720.00
Sec./Treas.	$ 80.00	$ 960.00
EMS Officer	$ 60.00	$ 720.00
Engineer	$ 30.00	$ 360.00
Engineer	$ 30.00	$ 360.00
SCBA Tech	$ 30.00	$ 360.00
Totals	***$ 590.00***	***$ 7,080.00***

Gilbert Fire Department		
Position	**Stipend per Month**	**Annual Stipend**
Fire Chief	$ 275.00	$ 3,300.00
Asst Chief	$ 200.00	$ 2,400.00
Captain*	$ 125.00	$ 1,500.00
Lieutenant	$ 150.00	$ 1,800.00
Sec.	$ 100.00	$ 1,200.00
Totals	***$ 850.00***	***$ 9,900.00***

The Human Resources section identified changes that will need to be made by all three departments in order to be in compliance with the Fair Labor Standards Act; therefore, it would be advantageous for the three governing bodies to reach agreement in a single member pay rate and annual stipend reimbursement.

Recommendation – Member Pay / Stipends

- *All three governing bodies should adopt a standard members' reimbursement for calls; in addition, agreement on a standard annual stipend amount.* ***Priority 2***

- *Fayal's additional stipends for EMS officer, Engineers, and SCBA Tech should either be eliminated or standardized in all three departments.* ***Priority 3***

- *Gilbert's additional double pay for Captains per call needs to be eliminated. The Fire Chief indicated he had no idea why this was adopted, but has been that way for a very long time in the department.* ***Priority 2***

- *Fayal's and Gilbert's stipend for the position of Secretary or Treasure should be eliminated inasmuch as all three departments are a municipal department and not corporations.* ***Priority 3***

Expenditures

The consultants requested line item budget expenditures from all three departments. The main purpose was to assist the consultants in making recommendation in consolidation pertaining to expenditures and potential cost savings.

City of Eveleth

The city provided the following budgeted expenses pertaining to the fire department for the years 2016 through 2018 as illustrated in the table below:

Table 30: Eveleth Fire Department Budgeted Expenses

EVELETH FIRE DEPARTMENT – EXPENSES			
Expenses	**2016 Budgeted**	**2017 Budgeted**	**2018 Budgeted**
Full-time Employees*	$1,075	$1,075	$1,075
On-call Salary	$37,000	$37,000	$37,000
FICA	$2,142	$2,907	$3,060
Operating Supplies	$5,200	$5,200	$5,500
Motor Fuels	$2,000	$1,800	$1,800
Uniforms	$1,500	$1,500	$1,500
Personal Protective Equipment	$15,000	$15,000	$15,000
Telephone	$500	$500	$500
Travel and Training	$8,000	$9,000	$9,000
Utilities	$8,500	$7,900	$7,900
Maintenance and Repair	$15,500	$15,500	$15,500
Capital Equipment	$5,000	$5,000	$5,000
Capital Note Payments	$37,800	$37,800	$37,800
Relief (pension fund)	$13,000	$18,278	$13,000
Fire Truck Replacement Fund	$20,000	$20,000	$20,000
Total Expenditures	**$178,217**	**$184,460**	**$181,635**

**The Eveleth Fire Department budgets $1,075 annually for full-time City employees who perform work for the fire department which includes PERA contribution.*

Grant Funding

The Eveleth Fire Department has been successful in procuring grant monies to reduce the fiscal impact on the City. In 2017, the department secured $2,500 from the Minnesota Department of Natural Resources. The department has also received reimbursement of over $15,000 from the State of Minnesota in training reimbursement since 2015. The commitment to the pursuit of grants by the fire department should be commended.

Eveleth Budget Review

Personnel costs are normally the highest percentage of an operating budget. It is important to note that Eveleth's Fire Department Expenditures include both Operational and Capital items. The members expense would include: salary, FICA, and relief contributions, which were budget in 2018 at $53,060.00 or 29.2% of the total budget. Stipend budgeted annual payment of $12,180.00 is included in the member's expenses of $53,060.00. All department members are included in the budget relief item in the 2018 budget.

Although the Fire Chief has little control over member's reimbursement, which are dependent on the number of calls, duration of the call, and training expenses, the budgeted figures have remained very consistent over the three-year study period. Review of the other line items within the budget seem most appropriate; however, if a part-time training officer is to be added to a consolidated department, there would be a shared expense increase for all three departments. The department appears to be adequately funded in all categories, and those funds are managed well by the fire department administration.

Fayal Township

The Town provided the following budgeted (not actual) expenses pertaining to the fire department for only the year of 2018 as illustrated in the table below:

Table 31: Fayal Fire Department Budgeted Expenses

Fayal Fire Department - Fire Expenses			
	Budget Year		
Expenses	**2016**	**2017**	**2018**
Firefighter Reimbursement			$ 23,000.00
Social Security Employer			$ 825.00
Medicare Employer			$ 200.00
Workers Comp Insurance			$ 2,100.00
Office Supplies			$ 1,000.00
Training			$ 2,800.00
Operating Supplies			$ 2,500.00
Motor Fuel			$ 2,000.00
Repair/Maintenance			$ 5,000.00

Fayal Fire Department - Fire Expenses			
Small Tools & Minor Equipment			$ 4,650.00
Professional Services			$ 3,000.00
Fire Relief			$ 14,000.00
Travel Expenses			$ 2,000.00
Advertising			$ 100.00
Insurance			$ 6,700.00
Dues & Subscriptions			$ 325.00
Fire Total			*$ 70,200.00*
Fayal Fire Department - EMS Expenses			
Training			$ 600.00
Operating Supplies			$ 300.00
Small Tools & Equipment			$ 500.00
Professional Services			$ 200.00
Travel Expenses			$ 200.00
EMS Total			*$ 1,800.00*
Department Total			***$ 72,000.00***

Grant Funding

The Fayal Fire Department has been successful in procuring grant monies to reduce the fiscal impact on the Town. In 2017, the department secured $2,000 from the Minnesota Department of Natural Resources. The department has also received reimbursement of over $2,400 from the State of Minnesota in training reimbursement since 2015. The Fire Chief is very involved in the fire service at the national level and would be a good source for coordinating grants for the consolidated fire department.

Fayal Budget Review

The Fayal Fire Department 2018 budgeted expenses were limited to Operational budget items and Capital items were not included; therefore, the reader should be aware if the budgets presented represent Operational items only or include Capital items before total expenses are compared between departments.

Personnel costs in firefighter retirement, employer taxes and workers' compensation, and fire relief. The consultants believe that relief (pension expense) are broken into two categories,

firefighter retirement and fire relief perhaps for payment to retired members and payment contributions to current members; inasmuch as they appear to be the same category of expense. The members' expenses would account for $40,125.00 or 59.7% of the 2018 budget.

It is assumed that the officer's stipends $5,880.00 are included within this budget items presented. There is not a line item for that expense. All department members are included in the budget relief item in the 2018 budget. Without the 2016 and 2017 budgeted expenses, it is unclear if there are any significant changes in the line items of the Fayal budget.

As stated in the other department's section, if a part-time training officer is to be added to a consolidated department, there would be a shared expense increase for all three departments in personnel costs.

Gilbert Fire Department

The Town provided the following budgeted expenses pertaining to the fire department for the three-year study period 2016 – 2018, as illustrated in the table below:

Table 32: Guilbert Fire Department Budgeted Expenses

GILBERT FIRE DEPARTMENT – EXPENSES			
Expenses	**2016 Budgeted**	**2017 Budgeted**	**2018 Budgeted**
Salaries and Wages	$30,000	$32,000	$31,000
Retirement	$2,300	$2,400	$2,375
Operating Supplies	$5,000	$6,500	$2,500
Motor Fuel	$1,500	$1,000	$1,000
Communications	$500	$700	$300
Telephone	$600	$350	$400
Training / Travel Expenses	$3,560	$2500	$1,000
Print/Publishing	$300	$300	$300
Insurance	$0	$0	$5,500
Repairs and Maintenance	$2,000	$2,500	$2,500
Miscellaneous	$500	$1,500	$3,500
Capital Outlay	$9,250	$6,000	$7,000
Debt Service Principal	$20,830	$21,417	$22,013
Interest	$2,295	$1,707	$1,111
Professional Services	$0	$5,000	$0

GILBERT FIRE DEPARTMENT – EXPENSES			
Total Expenditures	**$78,635**	**$83,874**	**$80,499**

Grant Funding

The Gilbert Fire Chief indicated the department has received grant monies but was unable to provide the documentation as to the exact amount, source of grant, and amounts of the grants.

Guilbert Budget Review

The Guilbert Fire Department 2018 budgeted expenses included both Operational and Capital line items entries. Personnel costs include: salaries and wages, retirement (relief fund) which all members are included. The member's expenses would account for $33,375.00 or 41.5% of the 2018 budget. It is assumed that the officers' stipends $9,000.00 are included within this budget items presented. There is not a line item for that expense.

As stated in the other department's section, if a part-time training officer is to be added to a consolidated department, there would be a shared expense increase for all three departments in personnel costs.

Budget Totals

The table below illustrates the employee expenses and stipends for each of the three departments:

Table 33: Departments Budgets Members Pay and Stipends - 2018

	Eveleth	***Fayal***	***Gilbert***
Members Pay	$ 53,060.00	$ 40,125.00	$ 33,375.00
Stipends	$ 14,480.00	$ 7,080.00	$ 9,900.00
FD Total Expense	$ 181,635.00	$ 72,000.00	$ 80,499.00

Consolidation

This section is composed after a comprehensive assessment of each of the three fire departments has been completed as well as meeting with the governing bodies of the departments.

What Is Consolidation?

Much has been written on the advantages and disadvantages of consolidation of emergency service providers and yet there exists significant misunderstanding of what it is. These misunderstandings most often result in fear. Research on consolidation, whether in political science, economics, or other social sciences, has two common denominators – (a) Improved services or (b) fiscal concerns. Both can be accomplished in a consolidation, but rarely do the stakeholders focus on both components. Depending on which is more important to the stakeholder greatly influences the chances of success of a consolidation.

"Business as usual" is fast becoming an unachievable option for many governing bodies. Escalating service demands and their associated costs are occurring as revenue sources are diminishing. Inasmuch as few organizations work better together than the fire service, it seems prudent to explore expanding these relationships. Consolidation maximizes scarce resources and reduces duplication of resources and efforts. Consolidation has been a proven success in many communities in meeting these challenges and maximizing opportunities.

Many in the fire service see themselves as exempt from examination of its cost effectiveness, and see themselves as the "only game in town." The lack of competition or perceived competition has kept many fire departments from changing old traditional practices and policies until confronted by a potentially serious matter. Fortunately, the consultants detected very few individuals with this perspective. All three fire departments have shown they can work together and share resources. The opportunity now is to expand that relationship.

However, for some, the term consolidation is frightening, meaning, "my world might change," and somehow, "I might lose something I feel very passionate about." For the members of the fire departments and governing elected officials, it could be perceived loss of power, control, and/or prestige. Most consolidation efforts do not fail because of practical aspects – they fail because of people issues. However, opportunities most often come disguised as challenges, requiring one to step away from the status quo and risk that things can be different.

It is important to call to the attention of those interested in consolidation that there are long-term benefits of consolidation; however, at the feasibility study stage, it is not the time to attempt to resolve all the City's challenges, wants, and future dreams. The consultants agree that all opportunities should be examined, but consolidations can easily become cost prohibitive when all the wants verses needs are placed into the consolidation.

The author has overseen numerous consolidations and is encouraged by the opportunities facing Eveleth, Fayal, and Gilbert. However, having said that, the consultants warn that the implementation process itself will not be easy. Change is difficult, and the fire service profession has struggled with change, due greatly in part to its proud tradition.

Foundation Purpose

In order to discuss consolidation, a primary goal must be established and used as the measuring device for all decisions. That measuring question is: **"What Is In the Best Interest of the People We Serve."** It is this question that should be the main determining influence for all decisions made about consolidation.

It is very appropriate and prudent for governing officials to investigate consolidation. It is, in fact, their responsibility to do due diligence in spending the taxpayer's dollars.

Types of Consolidations

There are many types of fire department consolidations. The six most common types are:

- **Administrative Consolidation** – Two or more fire departments maintain separate operations while some administrative/staff functions, such as clerical and personnel, are combined. An example would be a single Fire Chief overseeing both organizations.

- **Functional/Partial Consolidation** – Each fire department remains legally separate but perform special function(s), allowing for interchangeable use of apparatus, equipment, facilities, personnel, etc., An example would be combined dispatch, apparatus maintenance, combined training program, (partial – shared staffing a fire station serving both communities).

- **Merger** – A department (usually larger) absorbs another department (usually smaller), resulting in a single entity.

- **Selected Geographical Consolidation** – Usually found in larger cities. Consolidation is utilized in lower incident areas where service demands are relatively low, while separate department operations are performed in higher service demand areas such as a downtown area.

- **Operational Consolidation** – Each fire department remains legally separate but join together, both administrative and operation functions, to deliver services as if they were one department.

- **Full Consolidation** – Each fire department completely merge into a single legal agency. All services demands in each community are looked at as a single function of the department and political boundaries become invisible.

The governing officials of the three departments have indicated in investigating greater shared services, not necessarily in full consolidation. The State of Minnesota allows governing bodies to join fire departments as a new district, requiring a district board which has taxing authority. If the governing officials wish to maintain their local control, the three departments could be joined in a Joint Powers Agreement (JPA),

Consolidation Advantages/Disadvantages

Consolidation Incentives

There are many incentives to consolidate and the consultants have attempted to identify the top four that would be most beneficial to all parties:

- ***Address Volunteer Shortage*** – all three departments indicated that recruiting and retaining volunteers was becoming increasingly more difficult. This situation is not unique to these three departments, rather to the volunteer fire/EMS nationwide. What is problematic for the departments is they are recruiting from the same volunteer source pool; in other words, they are in competition with each other.

- ***Increase Members Safety*** – although the fire departments respond to each other fires, they do not consistently train together or under the same curriculum. Learning the idiocrasies of suppression team members during a fire attack, in a dangerous

environment, that should never occur. This could lead to death or serious injury of a department member. Consolidated departments train and work under the same conditions.

- ***Method to Improve Service – Borderless Boundaries*** – currently fire response areas are important to the participants. Consolidation ensures that the closest emergency provider would respond regardless of which City or Township the emergency arose.

- ***Future Cost Avoidance*** – a common misperception is that consolidations will initially save copious money. Some initial savings might occur, but the greatest cost savings in consolidations is future cost avoidance. In the case of Eveleth, Fayal, and Gilbert, looking at the combined protection area would allow for future reduction in apparatus. e.g. both NFPA and ISO recommend one reserve engine/pumper for every eight in-service engines/pumpers; therefore, one reserve engine/pumper could serve all three departments.

Other benefits to both communities include but are not limited to:

- Eliminate Redundancy
- Unify Service Delivery
- Improves fire/EMS capabilities
- Next logical step for three departments that already have functional consolidation in emergency responses
- Method to provide more cost effective services
- Standardization of services, programs, and training, resulting in cost savings, greater functionality, improved services, and employee safety
- Helps to balance demands for increased services against the concurrent demand for reduced cost
- Forces program examination
- Enhances depth of service
- Strategic planning becomes a necessity
- Maximize effective use of scarce resources
- Better utilization of department resources
- Decrease apparatus expenditures
- Standardization of services
- Increases service levels
- Allows opportunities to expand into specialized services
- Legitimate desire by the departments' leadership to become more efficient
- Improved ability to absorb financial crisis
- Less government is seen as advantageous by many individuals

Consolidation Obstacles

The consultants have identified the three obstacles to implementing consolidation that will be most challenging to a consolidation effort:

- ***Loss of Local Autonomy*** – all three governing bodies and fire departments have a strong sense of identity and value their role and "control" of their fire department. "Our municipality is unique and we value our culture," is a theme heard during the interviews. One does not have to lose their uniqueness by maximizing their opportunities to improve services.

- ***Current and Past Department Members*** – individuals have the ability to apply political pressure. Some current members might be concerned about loss of job and status. Meeting the needs of the community does not always align with meeting the needs of all individuals.

- ***Political Will*** – the strong sense of identity and community pride, coupled with the fiscal capability to remain independent of the other municipality, removes incentive to change. Elected and governing officials initially support consolidation, but when it comes to the actual implementation, political concerns/influences prevent consolidation

Other challenges to all three communities include but are not limited to:

- Resistance to change
- Hidden agendas
- Fire department leadership resistance and fear of status loss
- Tradition
- Different department philosophical beliefs
- Differences in equipment, policies, standard operating guidelines, apparatus, and employee standards
- Fear of loss of employment or duty
- Perceived inequitable sharing of costs
- Perceived inequitable sharing of resources
- More difficult to create change in larger organizations
- End product could cost more without proper management

Eveleth, Fayal, and Gilbert Consolidation

This section will explore several opportunities that the three communities can and should explore with an ultimate goal of some type of consolidation between the three fire departments.

The consultants recognize the history and culture that each of the fire departments has built throughout their history. As previously noted, one of the greatest obstacles to overcome when exploring consolidation of services are these two issues (history and culture). However,

throughout this study, the fire department administrations, as well as the stakeholders involved, genuinely appear interested in exploring the issue. The reality is, volunteer fire departments are facing tremendous challenges in our modern society. Volunteerism is decreasing, while the demands of volunteer firefighter's training and commitment required is increasing. The number of calls for service that volunteer fire departments are responding to have increased 300% since 1984, while at the same time, the number of volunteer firefighters has decreased 30%. However, without a volunteer, or predominantly volunteer fire department, many communities would be unable to afford full time fire protection. *Source: National Volunteer Fire Council*

Functional Consolidation

The concept of functional consolidation is not new to the Eveleth, Fayal or Gilbert Fire Departments. In fact, the departments have been performing Functional Consolidation for years. Functional consolidation occurs when departments begin operating like one large organization; sharing resources and working together at the emergency scene. Through the mutual aid system, and more recently with the introduction of the Firefighter Strike Team being organized in St. Louis County.

> *Firefighter Strike Team (FST) – is an expansion of the mutual aid concept. The intent of a FST is to assemble firefighters throughout the County and State that would respond to major incidents providing additional manpower and resources. FST could be utilized in major structure fires, mass-casualties, terrorism, weather related emergencies.*

Conventional wisdom suggests that the three department will continue to increase the amount of times they are working together. The side effect of responding together more frequently is that personnel become more comfortable working with one another and on-scene operations tend to reflect this camaraderie and run much more smoothly and increases firefighter safety.

Consolidation Options

Increase the amount of Functional Consolidation inasmuch as all three departments are familiar with how it works. The challenge becomes that functional consolidation for emergency response and suppression makes sense to many fire service leaders; however, some of those same fire

service leaders have difficulty applying the same principles to the administrative functions to their job.

Increasing functional consolidation between the three communities would have a slight fiscal impact to Eveleth, Fayal, and Gilbert. Each governing body would retain full control over their respective fire department. What would not be realized in this option is any cost savings inasmuch as it would be business as usual, but more often.

Areas to increase Functional Consolidation are suggested below:

Training

Training is the backbone of a fire department. There is probably no single function in the fire/EMS service that is more related to safety for the emergency provider, incident commander, and to those receiving the services. There are significant opportunities for improvement between the three departments.

First, each department is performing training on separate days of the week throughout the month and are training on different topics. It would be advantageous to all three departments to explore a common training curriculum. While training can still take place on different nights of the week and month, a common training curriculum would allow members of a department that miss their "home" training to make it up at another department while receiving similar instruction.

Developing a common training curriculum would allow the three department training officers to distribute the workload more equitably, allowing each to focus on training in areas that they are most comfortable with and knowledgeable of. Neither of the three departments are busy enough to warrant three separate training officers in such a small region working independently.

Policies and Procedures

The second area of functional consolidation that could be implemented immediately involves the standardization of policies and procedures. Fire service operations are largely dictated by national consensus standards and industry best practices. Outside of administrative policies, fire ground operations are largely conducted the same, regardless of the department or region of our nation.

The quality of existing policies and procedures varied among the three departments studied. Having a common standard that everyone is expected to follow and adhere to can improve fire ground communications and overall operations because everyone is training to the same *MAYDAY* procedure, or the same search and rescue policy.

> *MAYDAY – Emergency/urgent radio transmission – use of the word MAYDAY will indicate that a firefighter/fire officer has become lost, trapped, seriously injured, or exhausted his breathing air at the scene of an emergency incident. Specifically, a firefighter is in need of immediate help.*

Each of the three department administrations should come together to identify best practices among the existing policies and identify consensus moving forward on adopting common methodological approaches to firefighting and on scene operations.

Purchasing

Currently, each department is responsible for budgeting and acquiring new equipment as needed. As such, each department has developed their own personal protective equipment and vendor preferences, often without consulting with any of the other adjacent departments. The scale of economy as a small department does not garner much purchasing power independently.

With functional consolidation, each department can maintain its own budget, but during the budget proposal process, each department administration should be talking together to determine future needs in an attempt to identify efficiencies in purchasing. Whether it is personal protective equipment, hand tools, or even office supplies and paper towels for the fire hall, a larger scale of economy can benefit all parties involved.

One Department

There are two types of consolidation that would have Eveleth, Fayal, and Gilbert function as a single service provider.

> Operational Consolidation – Each fire department remains legally separate but join together both administrative and operation functions, delivering services as if they were one department.
>
> *Full Consolidation* – Each fire department completely merge into a single legal agency. All services demands in each community are looked at as a single function of the department and political boundaries become invisible.

Governing Body Decision

Once the governing bodies determine that they would have their fire service consolidate with the other two municipalities, the decision must be made as to how much direct control of the new fire department each community desires:

Operation Consolidation – no independent taxing authority, taxing authority remains with the municipalities – the fire department legally remains separate and the governing bodies develop some type of Intergovernmental Agreement (IGA) e.g. Joint Powers Agreement (JPA):

> *An **intergovernmental agreement** (IGA) is any **agreement** that involves or is made between two or more governments in cooperation to solve problems of mutual concern. **Intergovernmental agreements** can be made between or among a broad range of governmental or quasi-governmental entities.*
>
> *Minnesota cities have statutory authority to enter into agreements with virtually any other governmental entity—other cities, counties, towns, special districts, service cooperatives and the state. These agreements can take the form of **joint powers** entities, service contracts, mutual aid agreements, shared resources and shared personnel.*

A Full Consolidation – has taxing authority and autonomy of the fire department – creates a fire district which under Minnesota statue can have taxing authority. The three municipalities relinquish direct control of their fire departments and create a Fire Board comprised of members

from all three municipalities. The Fire Board, not the individual municipalities, have authority of the fire department. An area example of a full consolidation is the Cloquet Area Fire District.

Difference Between JPA and Fire District

Both consolidate resources, provide unified service, maximize scarce resources, and can save money through future cost-avoidance. Overly simplified, this is where the source of income comes from. In an Operational Consolidation, each municipality continues to be the taxing source; whereas, in a Full Consolidation, the municipalities relinquish their taxing authority to a Fire District Board who oversees all aspects of the consolidated fire departments. In the case of the Cloquet Area Fire District it required special legislation in 2009. As of the writing of this report, there were the three examples listed of full shared services in Minnesota and according to the State Fire Marshal Office, perhaps eight to twelve partial consolidations (JPA)

Table 34: Minnesota Shared Services

Minnesota Shared Services	
Department	**Shared Service Models**
Cloquet Area Fire District	Full
Isanti Fire District	Full
Moose Lake	Full

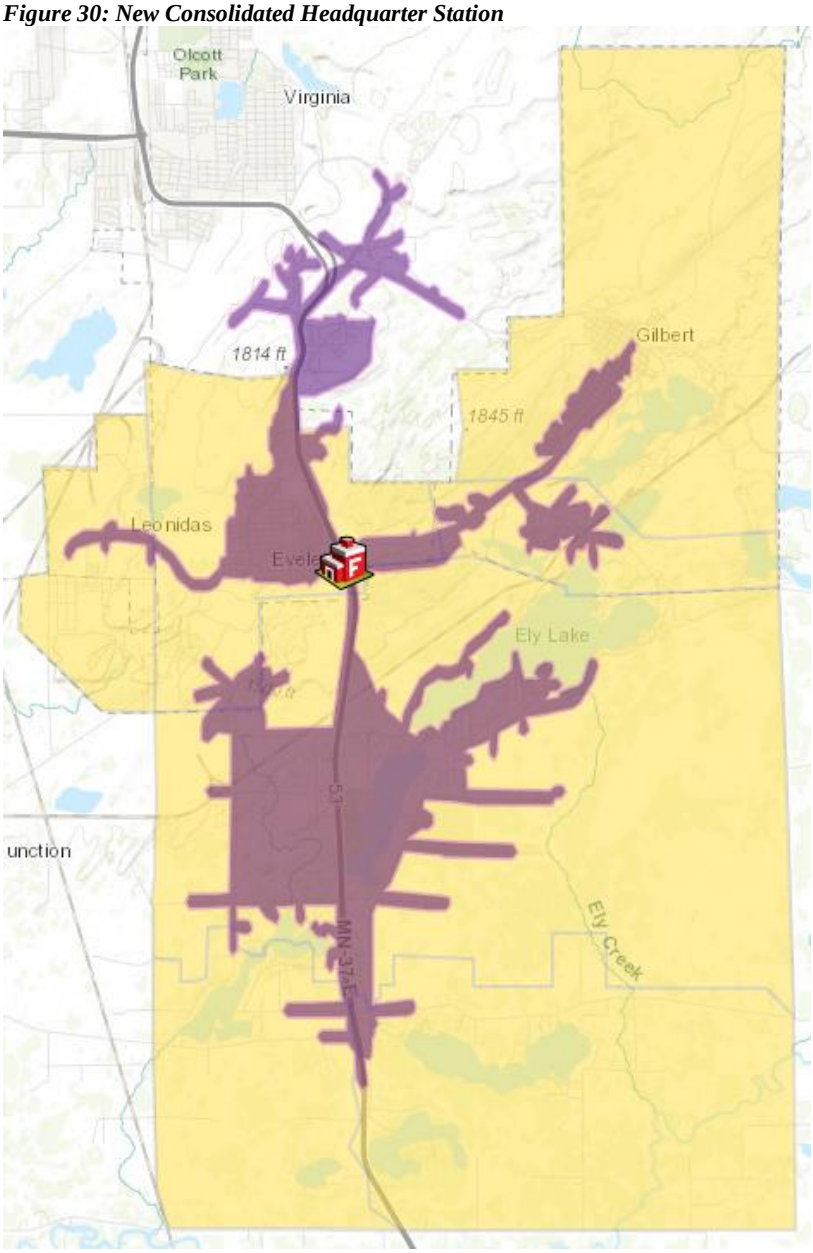
Facilities

In evaluating the three fire stations for long term viability in a consolidated system, the consultants noted several key issues. First, none of the stations have a direct source exhaust capture system installed which is allowing staff and personnel to breath in harmful known carcinogens when the apparatus and small equipment are running indoors. Second, the Eveleth fire station is the only facility that has overnight accommodations for staff. While this may not seem practical since all three departments are currently 100% staffed with volunteer personnel, it would be prudent for each community to plan for future growth and needs. As discussed in an earlier section, the number of volunteers is declining nationwide while the call volume of volunteer fire departments is dramatically increasing.

It was brought to the consultants' attention that the **Iron Range Resources & Rehabilitation** (IRRRB) might be a potential future source of grant funding for a consolidated facility between Eveleth, Fayal, and Gilbert. In a cursory review of the IRRRB website and grant requirements for community infrastructure projects, it would appear that multi-community projects have a larger potential for successful grant awarding.

In conducting the research for this study, stakeholders of the three participating communities related that if a new fire station were to be built, the best location, in the stakeholders' opinion, would be somewhere near Hwy 37 and Hwy 53. The consultants did not evaluate the availability of land or potential egress and ingress issues within the scope of this study. However, a spatial analysis of the location revealed a broad coverage area of the joint district that would be created under a consolidated department.

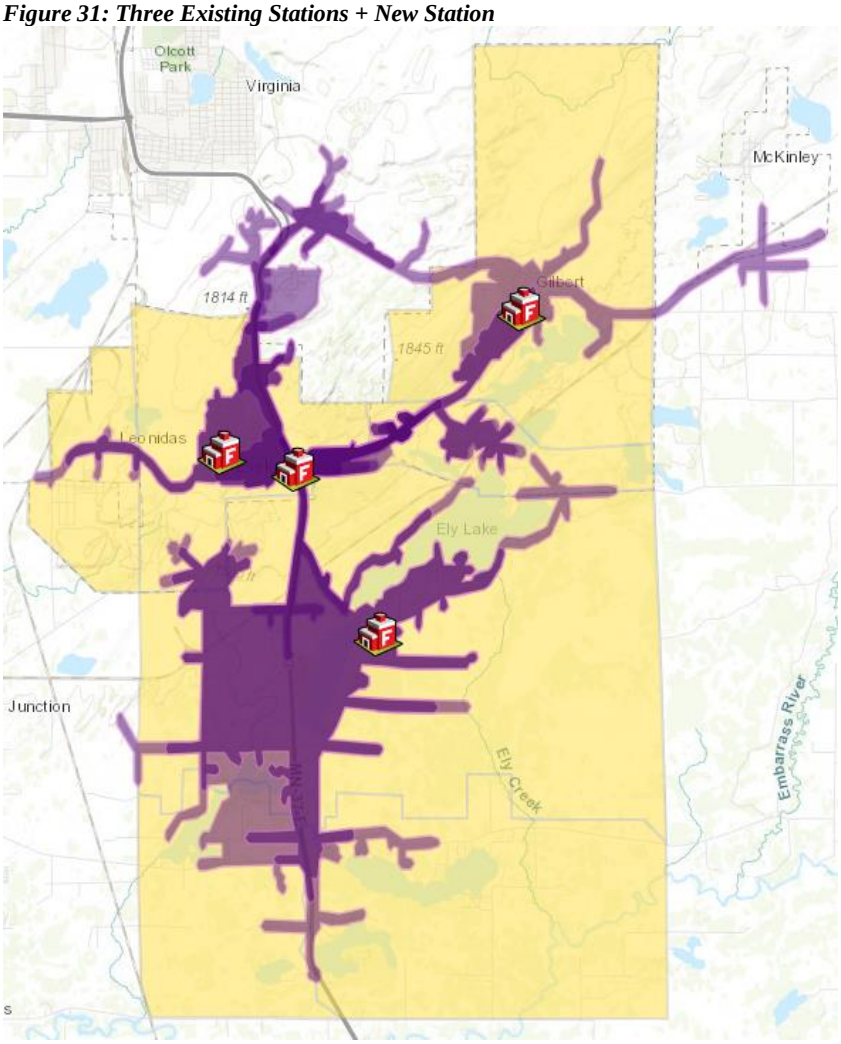
Figure 30: New Consolidated Headquarter Station



The yellow area in the above figure represents the combined fire protection areas for the Eveleth, Fayal, and Gilbert fire departments. The purple area represents a five-minute drive time from the new headquarter facility.

The figure below illustrates the five-minute drive time showing the new fire station along with the existing three fire stations:

Figure 31: Three Existing Stations + New Station

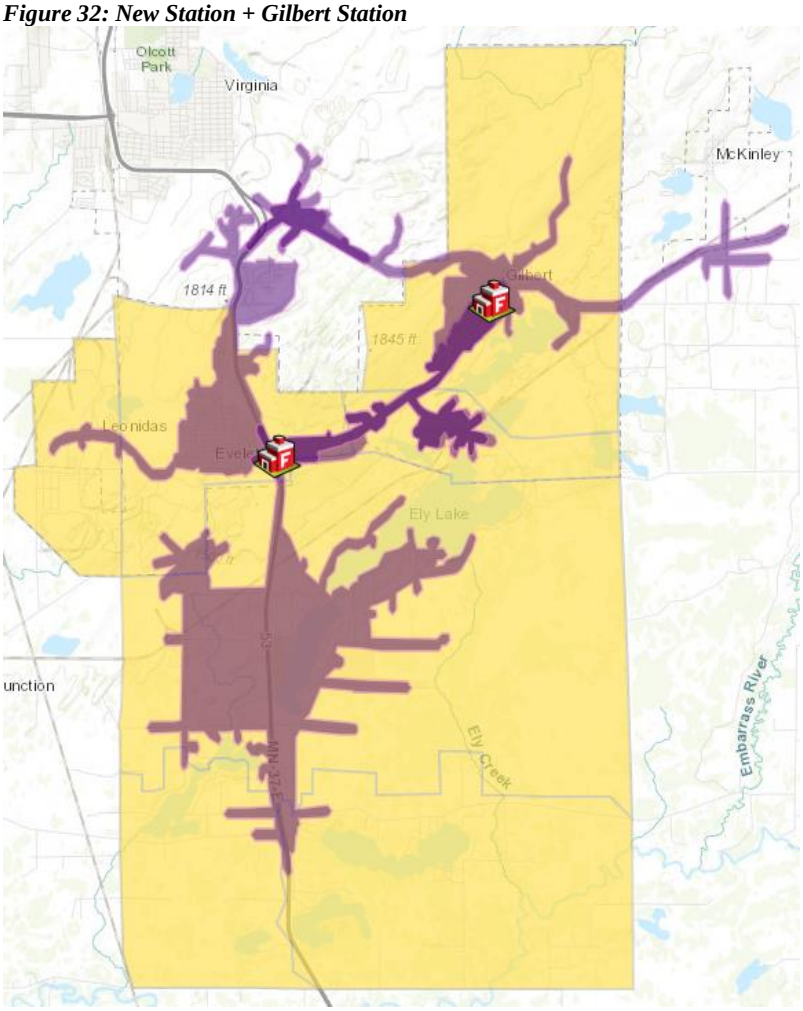


The yellow area is the combined fire protection areas of the three departments. However, there are now two shades of purple. The lighter purple is the area that each station can get to within a five-minute drive time. The darker purple represents the overlap area that one or more stations can reach in a five-minute drive time.

The GIS mapping suggest that for the City of Eveleth, the new station could protect the entire City within a five-minute drive time; therefore, Eveleth could provide protection for their entire protection area from the new facility.

The same is not true for Gilbert and Fayal. In these two municipalities, it would be advantageous to have a satellite station. Satellite Fire Stations are designed to augment the primary (Headquarter) fire station response times to areas in the protection district which would exceed response standards. Typically, they house only one or two pieces of apparatus with the intent they can reach the emergency scene faster than the new station, but would not need the duplication of resources housed in the new Headquarter station. The figure below illustrates the area protected by a new Headquarter station and the existing Gilbert station.

Figure 32: New Station + Gilbert Station



The yellow area represents the combined protection area of the three departments. The dark purple illustrates how far the Gilbert and new station overlap. The lighter purple indicates that some resources will be needed in Gilbert, e.g. satellite fire station.

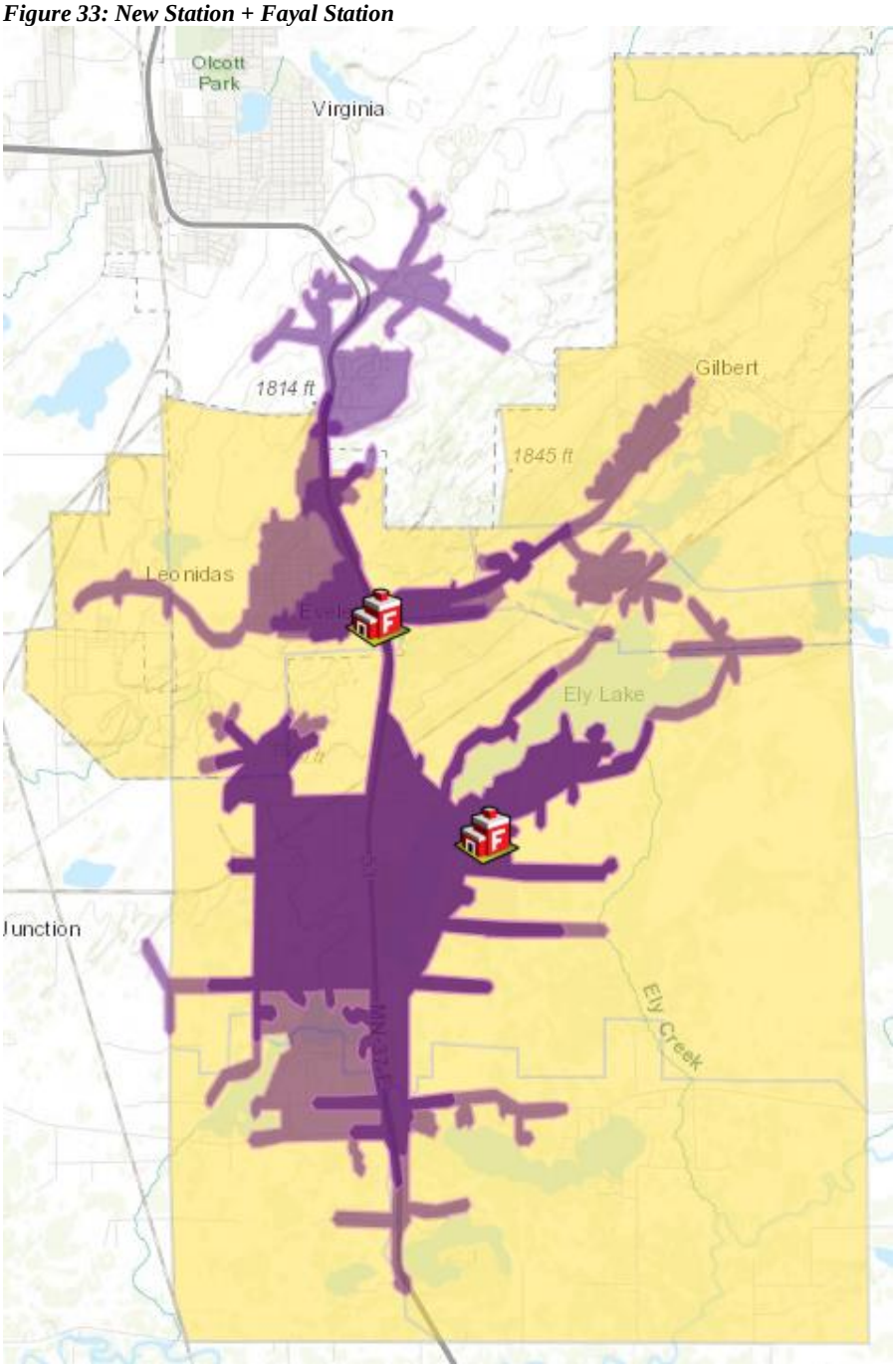
Fayal Township does not have complete existing coverage if their fire hall was removed from the response district of the consolidated fire department. Therefore, it would be advantageous for Fayal Township to convert their current fire station into a satellite facility. Initially, several pieces of apparatus could respond from the current location, but duplication of resources would be realized if the consolidated department now responded from a single Headquarter Station and two satellite facilities: one in Gilbert and one in Fayal.

The consultants would anticipate that not only would the ISO class rating remain as is, but might even improve with the combined resources of the three departments. All three communities would still have a quick initial response from the Headquarter and two Satellite facilities.

If a new station is determined to be in the best interest of the participating communities, elected officials and fire department administration would be well advised to consider a modern facility with sufficient space to accommodate the future needs of the fire department, including an apparatus room that has a total capture system for diesel exhaust, a SCBA compressor and fill station with a fresh air intake, decontamination area for personal protective equipment and personnel, as well as sleeping quarters or the option to add on sleeping quarters if future staffing needs dictate the need.

The figure below illustrates the five-minute response area from a new Headquarter station and the existing Fayal satellite facility.

Figure 33: New Station + Fayal Station



The yellow area represents the combined protection district of the three fire departments. The light purple area is the area that can be reached by one of the stations with a five-minute drive time. The dark purple is the area that both stations can reach with a five-minute drive time.

Consolidated Apparatus

As noted in a previous section of the report, one of the savings in consolidated department involves the amount of apparatus that can be reduced to avoid the redundancy that exists by each fire department purchasing apparatus that easily could be shared amongst the three departments. Combined, the three departments have 17 pieces of apparatus as illustrated in the table below:

Combined List of Apparatus – Eveleth, Fayal, and Gilbert Fire Departments

The table below illustrates the combined apparatus of the three fire departments as well as the recommended apparatus for a single consolidated fire department:

Table 35: Combined Apparatus / Consolidated Apparatus

Current Combined Inventory			Consolidated Inventory	
Engine/Pumper	4		Engine/Pumper	2 + Reserve
Engine/Tender	1		Engine/Tender	1
Tender	1		Tender	1
Ladder	1		Ladder	1
Brush	3		Brush	2 + Reserve
Squad/Rescue	1		Squad/Rescue	1
Utility	3		Utility	2
Rehab Trailer	1		Rehab Trailer	1
UTV	1		UTV	1
Boat	1		Boat	1
Total	**17**		***Total***	**13 + 2 Reserve**

The current location of the above apparatus is illustrated in the table below:

Table 36: Combined Apparatus/Vehicles

Dept.	Apparatus ID	Manufacturer	Apparatus Type	Year	Mileage	Hours
Gilbert	Engine 1	International	TeleSquirt	1984	9,626	736
Fayal	Engine 91	Pierce	Engine	1991	22,140	1,684
Gilbert	Engine 2	International	Engine	1999	13,113	930
Eveleth	240	Ford	Brush Truck	1999	13,229	N/A
Fayal	Engine 3	Ford F350	Brush Truck	2000	12,297	N/A
Eveleth	242	Ford	Utility	2000	53,020	N/A

Dept.	Apparatus ID	Manufacturer	Apparatus Type	Year	Mileage	Hours
Eveleth	Engine 2	General	Engine	2001	12,028	1,082
Eveleth	241	Alexis	Rescue	2004	4,083	763
Fayal	Trailer	American	Rehab Trailer	2005	N/A	N/A
Gilbert	Truck 2	Ford F350	Utility	2005	6,362	N/A
Fayal	Engine 2	International	Engine	2006	9,670	105
Eveleth	Engine 1	Spartan	Engine	2013	12,056	753
Fayal	Boat	Kodiak	Boat	2015	N/A	N/A
Gilbert	Truck 1	Ford F550	Brush Truck	2015	1,282	N/A
Fayal	Squad 1	GMC 3500	Squad	2016	9,403	N/A
Fayal	Tender 1	International	Tender	2018	370	20
Fayal	UTV	Polaris	UTV	Unknown	N/A	N/A

Future consideration for additional apparatus is illustrated in the table below:

Table 37: Future Apparatus Consideration

Future Apparatus Purchase
Tender
Ladder

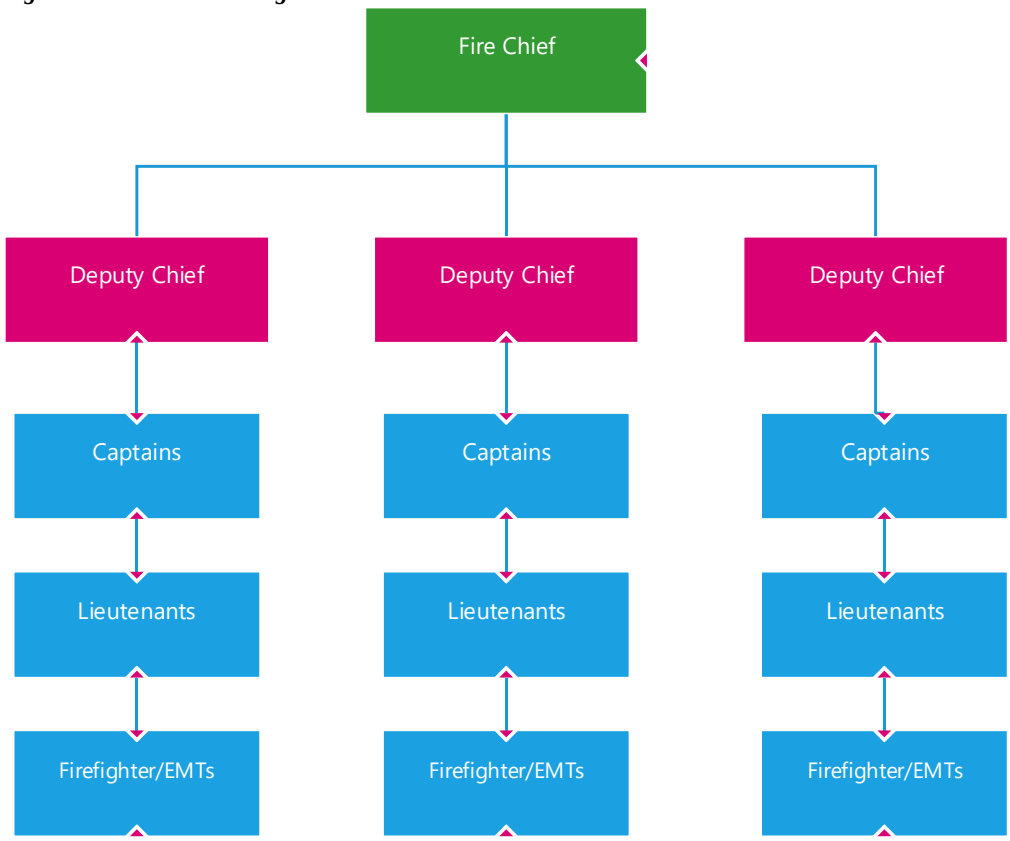
Although Fayal has an engine/tender an additional tender would be advantageous and could be placed in a satellite fire station. A ladder truck is a significant purchase and before consideration, the consolidated department should consider some type of agreement with the City of Virginia for response of their ladder truck when needed.

Consolidated Organization Chart

The consolidated organizational chart has a single Fire Chief and each station (Headquarter and two Satellites) would be overseen by a Deputy Chief or Assistant Chief (same title for each station – not two separate individuals).

In both an Operation or Full Consultation, the following figure illustrates the consolidated fire department organization chart.

Figure 34: Consolidated Organization Chart



Reduce Redundancy

Rarely does any type of consolidation reduce the actual number of firefighters/EMTs; rather the administration is reduced. There would only be one Fire Chief and each organization would have a Deputy Chief /Assistant Chief (only one person per organization) as their top administrator. The ranks of Battalion Chief, Captains, Lieutenant, if not reduced, would be standardized as to qualification to hold the position.

Fire Chief

Inasmuch as there are currently three Fire Chiefs, the consolidated departments should determine the qualifications desired, create a job description, certifications, and expectations in writing. Testing should be open to internal and external candidate, with testing including an assessment center. Which candidate scores the highest and meets all the hiring standards and performs best

during the assessment testing and interviewing should be hired as Chief, whether an internal or external candidate.

Consolidated Fiscal

The State of Minnesota provides a fund to assist local governments in subsidizing pension costs for fire relief associations. This fund, enabled by the Revisor of Statutes in Chapter 69, is commonly known as 2% dues as it is derived from the amount of premiums received by insurance companies and redistributed to communities who provide fire protection via a local fire department. Additionally, the Minnesota Legislature has provided a supplemental state aid fund for police and firefighter retirement which is enabled by the Revisor of Statutes in Chapter 423A.022. The program, ultimately administered by the Public Employees Retirement Association, appropriates $15,500,000 annually, which is then divided among all eligible participating fire departments across the state.

The three departments related receiving the following amounts:

Table 38: Eveleth, Fayal, Gilbert - State Aid Received FY 2015 - 2017

	2015	2016	2017
Eveleth	$12,914	$16,163	$16,078
Fayal	$14,990	$13,044	$14,812
Gilbert	$11,901	$11,858	$11,647

Funding Formula Options

The successful and equitable funding of a consolidated fire department is a primary concern of elected officials and residents of the newly formed fire department area alike. In some cases, District funding formulas are diverse as the municipalities that create them; however, there are three components that appear in the vast majority of funding formulas, consisting of the following:

- Equalized Market Value(EMV)
- Population
- Last Three-year Call History

Equalized Market Value

The first component of equalized market value is illustrated in the figure below equaling **$384,123,800** for the three municipalities:

Figure 35: Equalized Market Values

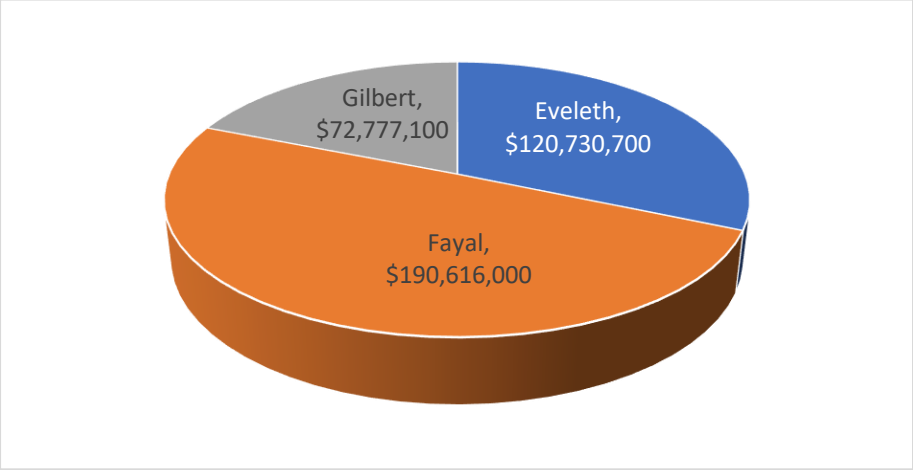


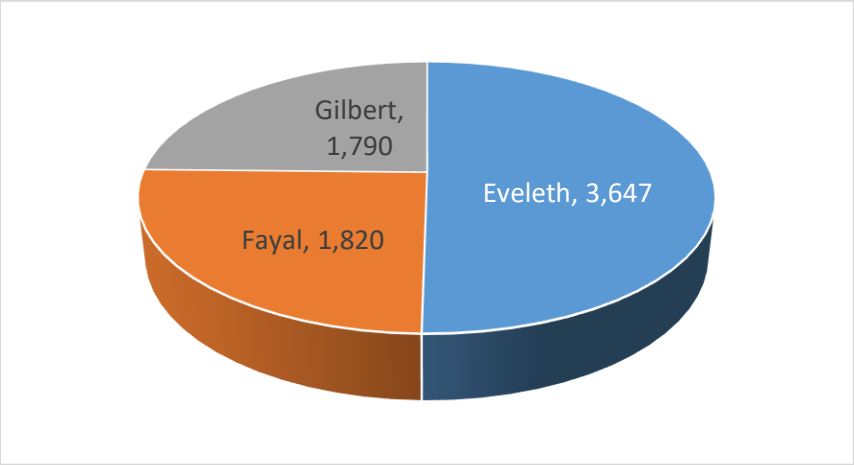
Table 39: Equalized Market Value Percent of Total

Equalized Market Value		
Municipality	Value	% of Total
Eveleth	$ 120,730,700	31.4%
Fayal	$ 190,616,000	49.6%
Gilbert	$ 72,777,100	18.9%

Population

The second component "population" figures were taken from the municipalities web page as illustrated in the figure below:

Figure 36: Populations



The total population for the three participating communities is **9,127.** The following figure illustrates population and percent of total population for each municipality.

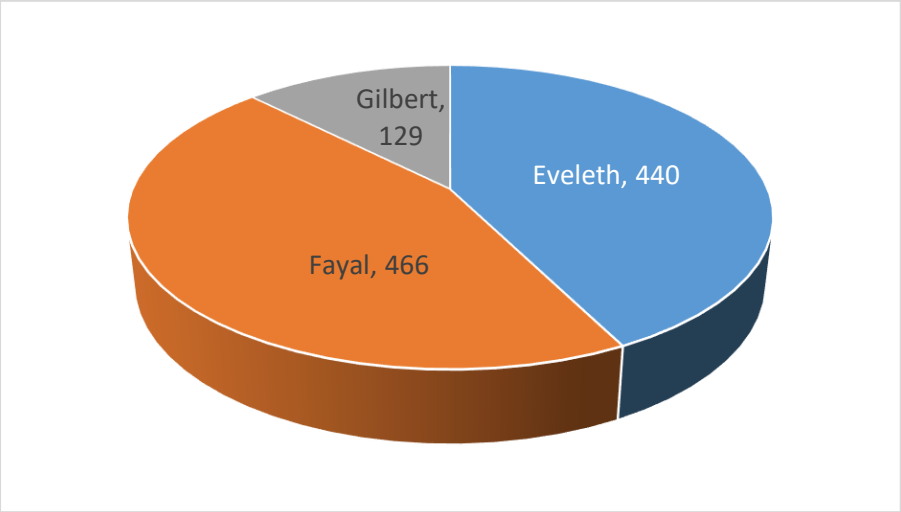
Table 40: Population

Population		
Municipality	Population	% of Total
Eveleth	3,647	50.3%
Fayal	1,820	25.1%
Gilbert	1,790	24.7%

Three-year Call History

The third component of a consolidated budget is the call history for the last three years of each department as illustrated in the figure below:

Figure 37: Call History 3-Years



The three year total calls equaled 1,035 for the three municipalities as illustrated in the table below:

Table 41: Total Calls 3- Years

Call History 3-Years		
Municipality	Calls	% of Total
Eveleth	440	42.5%
Fayal	466	45.0%
Gilbert	129	12.5%

Consolidated Budget Calculations

If the consolidated budget were to equal the current budgets for each department, the contribution towards the consolidated department by each municipality would be as illustrated in the table below:

Table 42: Consolidated Budget Contribution

Consolidated Budget Contributions				
Municipality	*Equalized Market Value*	*Population*	*3-Years Total Calls*	*% of Consolidated Budget*
Eveleth	31.4%	50.3%	42.5%	41.4%
Fayal	49.6%	25.1%	45.0%	39.9%
Gilbert	18.9%	24.7%	12.5%	18.7%
Total Budget				**100.0%**

Final Consolidated Budget

The challenged for the total three municipalities budgets are all in different formats and the consultants could not determine an exact figure dedicated to just funding the fire departments budget. One might believe that you took the figures presented in the following a total consolidation budget could be determined; however, the reader needs to examine the expense categories to see the uncommon expenses listed. Therefore, just adding up the three budgets in in the following tables does not provide a clear path to determining an accurate combined figure. The reader will need to examine the following tables listed in the "Fiscal" section of this report.

- Table 30 – Eveleth
- Table 31 – Fayal
- Table 32 – Gilbert

The categories listed are dissimilar and do not provide an accurate figure in which to apply the suggested funding formula to a combined total budget. Rather the consultants urge the three municipalities to ensure they are all considering the same expense categories before applying the funding formula.

Recommendation – Consolidated Funding Formula

- *The three municipalities should ensure that their fire departments budget all include the exact expenses so a fair percentage of fiscal participation can be determined.* ***Priority 3***

- *The suggested components of equalized market value, population, and three-year history of emergency responses should be utilized in determining the formula for fiscal participation into the consolidated department.* ***Priority 3***

Summary Study Recommendation:

The consultants examined large amounts of data, stakeholders' interviews, observations, and most importantly attempted to understand the culture of the three municipalities and their fire departments. Without question there are very dedicated individuals serving their municipality and the fire departments. There is a strong pride in the fire department membership expressing the feeling their department is unique and provide the best service. One would be disappointed to hear anything else from those that dedicate so much and receive so little.

The conclusion of the study indicates that there are opportunities to improve service, reduce duplication of resources, costs savings, and most importantly improve safety for those that provide the services.

Study Recommendation

- *The three municipalities should actively move towards an Operational Consolidation under a Joint Power Agreement where each will still have authority and funding control over the shared services of the consolidated department.* ***Priority 1***

Recommendation Summary

Category	*Priority*	*Recommendation*
OSHA	1	*The fire department leadership must ensure that the OSHA "two-in/two-out" rule is practiced on all structure fires*
Study Recommendation	***1***	***The three municipalities should actively move towards an Operational Consolidation under a Joint Power Agreement where each will still have authority and funding control over the shared services of the consolidated department***
Eveleth Facility & Apparatus	2	*The fire station should be equipped with an OSHA approved vehicle emission exhaust removal system which accomplishes 100% capture and removal of exhaust emissions to the outside. (reference Appendix B*
Eveleth Facility & Apparatus	2	*The SCBA compressors for filling air bottles air-intake should be renovated so that outside air is drawn into the compressor eliminating potential contaminated air within the facility*
Eveleth Facility & Apparatus	2	*The fire/ambulance facility should be protected by an automatic fire suppression system (sprinklers) which transmits a signal to an outside monitoring source*
Fayal Fire Hall	2	*The fire hall should be equipped with an OSHA approved vehicle emission exhaust removal system which accomplishes 100% capture and removal of exhaust emissions to the outside. (reference Appendix B)*
Fayal Fire Hall	2	*The fire hall facility should be protected by an automatic fire suppression system (sprinklers) which transmits a signal to an outside monitoring source*
Fire Prevention/Safety Ed.	2	*Encourage staff to seek Fire Inspector I training and create an inspection program that both pre-plans and formally inspects commercial occupancies in each community at least once a year*
Gilbert Fire Hall	2	*The fire hall should be equipped with an OSHA approved vehicle emission exhaust removal system which accomplishes 100% capture and removal of exhaust emissions to the outside. (reference Appendix B*
Gilbert Fire Hall	2	*The fire hall facility should be protected by an automatic fire suppression system (sprinklers) which transmits a signal to an outside monitoring source*
Member Pay / Stipends	2	*All three governing bodies should adopt a standard members' reimbursement for calls; in addition, agreement on a standard annual stipend amount*
Member Pay / Stipends	2	*Gilbert's additional double pay for Captains per call needs to be eliminated. The Fire Chief indicated he had no idea why this was adopted, but has been that way for a very long time in the department*
Training 3 Departments	2	*A minimum of one night a month should be a training class/drill with all three fire departments requiring attendance of their members*
Training 3 Departments	2	*Quarterly, all fire department officers should attend a single officers training session in which standards of operations should be unified*

Category	*Priority*	*Recommendation*
Consolidation Funding Formula	3	*The three municipalities should ensure that their fire departments budget all include the exact expenses so a fair percentage of fiscal participation can be determined*
Consolidation Funding Formula	3	*The suggested components of equalized market value, population, and three-year history of emergency responses should be utilized in determining the formula for fiscal participation into the consolidated department*
Eveleth Facility & Apparatus	3	*The fire pole (which is out of service) should be removed and the 2nd floor opening permanently closed*
Fire Prevention/Safety Education	3	*During educational opportunities, obtain quantifiable data including the number of residents, children, etc. impacted by the delivery of a program*
Hose Testing	3	*Fire department administrators must ensure that fire hose is tested in accordance with NFPA 1962*
Ladder Testing Records	3	*Fire department administrators must ensure that ladders are tested in accordance with NFPA 1932*
Member Pay / Stipends	3	*Fayal's additional stipends for EMS officer, Engineers, and SCBA Tech should either be eliminated or standardized in all three departments*
Member Pay / Stipends	3	*Fayal's and Gilbert's stipend for the position of Secretary or Treasure should be eliminated inasmuch as all three departments are a municipal department and not corporations*
Quadrennial Report	3	*The department leadership must ensure they meet the requirements of the quadrennial report, as outlined in NFPA 1720, Chapter 4 and begin to identify deficiencies within the department and the strategic plan with which to overcome these deficiencies*
Training 3 Departments	3	*All three fire departments should purchase and record <u>all</u> fire department activities on a single data management system common to all three departments*
Training 3 Departments	3	*Training documentation should be part of the data management system of the department, with all training records, classes, etc. recorded completely. The system should allow for the complete retrieval of an individual's training history*
Fire Prevention/Safety Ed.	4	*Implement a Community Risk Reduction program specific to the targeted needs of the community rather than merely focusing on Fire Prevention Week activities in October*
Quadrennial Report	4	*The department quadrennial report outlined in NFPA 1720 should define demand zones and/or circumstances in which the requirements of the standard are not being met*
Quadrennial Report	4	*The quadrennial report should explain the predictable consequences of identified deficiencies and address steps within the department's strategic plan necessary to achieve compliance*
CFAI	5	*The fire department should not seek international accreditation (CFAI) at this juncture; rather, the CFAI performance indicators and core competencies should be utilized as a model for quality and a benchmark for opportunities*

Category	*Priority*	*Recommendation*
MABAS	5	*Fire department leadership should advocate for and work to implement MABAS throughout the State of Minnesota or identify MABAS best practices and adopt them in the local region*
NFPA 1720	5	*The Cities/Township should not adopt NFPA 1720 standard. Adoption would include the adoption of all OSHA and NFPA standards by reference included in the document. However, a plan should be developed to meet as many NFPA 1720 standards as possible in the future*

Appendix A – Data Request

Fire/EMS Component

Show each year data separately i.e. 2015, 2016, and 2017 – do not group years together

We request data in an electronic format on a flash drive or disk

If an area does not apply simply indicate NA

Do not send this information. Once collected we will meet with you on site to review it. Call if you have any questions – especially before conducting hand counts

- **General Information**
  - Overview of the department
    - History
  - Overview of the area protected
    - District
    - City/Village
  - Population – Residents of Protection Area

- **Response District –**
  - Map of Coverage Area
  - Map of Contiguous Surrounding Area Showing Department Stations Locations
  - Total Square Miles Protected
    - Square Miles of Hydrant Area
    - Square Miles of Non-Hydrant Area

- **Personnel Management/Human Resources**
  - Current Roster of Members
  - Personnel (information needed for all employees)
    - List of members (sworn and non-sworn)
      - Hire date
      - Age or date of birth
  - Organizational Chart
  - # of Career
  - # of Paid On Call
  - # of Paid On Premise
  - # of Volunteers
  - # of Other Employees (Include civilian)
  - Rank Structure (Number of Employees in Each Category)
  - Spreadsheet – name, rank, current salary,

- Department's By-Laws (if corporation)
- Police & Fire Commission or Civil Service Regulations
- Employee Policy & Procedure Manual (prefer electronic version)
- Promotional Process – including forms utilized
- History of Turnover (All Employees Last 3 Years – Include Reason and/or Exit Interview Data)
- Recruiting/Retention Programs
- Hiring Process (all forms)
  - Application
  - Hiring packet
  - Reference questions
  - Interview questions
  - Etc.
- Performance Evaluation process and forms
- Last year's overtime by employee – include rank
- FLSA pay cycle (if not in contract)
- SOG/SOP Manual – prefer electronic copy – (sure to include HR policy section)
- Department Employee's Handbook
- New employee Orientation Process – (packet and/or forms)

- **The Department**
  - Department SOG's
  - Department Rules & Regulations
  - Annual Reports – Last 3 Years
  - Current ISO Rating
  - Last ISO On-Site Evaluation (copy of point distribution sheet)
    - Last On Site Evaluation

- **Emergency Activities –**
  - Total calls last ten years (no breakdown just total calls per year)
- **<u>Last 3 Years</u> (All Sub-Sections)**
  - # Of Emergency Responses
  - **NFIRS)** Type of Responses: *For each of the 3 years*

NFIRS Series	Nature of Call	2015 Calls	2016 Calls	2017 Calls
100	Fires			
200	Overpressure/Explosion			
300	Rescue/EMS			
400	Hazardous Conditions			
500	Service Calls			

NFIRS Series	Nature of Call	2015 Calls	2016 Calls	2017 Calls
600	Good Intent Calls			
700	False Alarm/False Calls			
800	Severe Weather			
900	Special Incidents			
	Total Calls			

- EMS Responses # of:
  - 1st Responder
  - ALS
  - BLS
  - Non-emergency Transports/Transfers, etc.
- Incidents by Time of Day
- Incidents by Day of the Week
- Incidents by Month
- Calls Breakdown by Area (City, District, Town, Etc.)
- Distribution by Shift
- Distribution by Station
- Response Times: (include documentation from dispatch)
  - Notification time
  - Turnout time
  - Drive time
  - Mitigation time
- Mutual Aid – Auto Responses (Given & Received) – With Whom? – Copy(ies) of Written Agreement
- Simultaneous (Overlapping) Call Data

- **Dispatch (PSAP)**
  - Who provides dispatch
    - Location (address) of dispatch center
    - Cost
    - Dispatch <u>data</u> – time from receiving call to FD notification
      - *A data printout showing CAD verification times - from call received until agency is dispatched. CAD shows minutes and seconds.*
  - Who answers 9-1-1
  - Who answers cellular 9-1-1
  - # of Employees
  - # of Shifts
  - Staffing per Shift (minimum & maximum)
  - EMD Program
  - Dispatchers/Call Taker Certifications

- **Fire Station(s) – *include mailing address for each station – include City & Zip***
  - Current Facilities
    - # Of Stations – Street Address
    - Square Footage – (Floor Plans for each if available)
    - Age
  - Future Facility Plans/Needs Documents

- **Apparatus & Equipment –**
  - Type of Apparatus (I.E. Engine, Ambulance, Utility, Tender, Truck – Include Manufacturer)
  - Apparatus department ID number
  - Pump & Tank sizes
  - Mileage
  - Engine Hour Reading (if appropriate)
  - Age of Apparatus
  - Replacement Schedule
  - Apparatus maintenance records
    - Internal
    - External
  - Special Teams Apparatus
  - Specialized Equipment: Haz Mat, Water Rescue, Etc.
  - Radio, Type and Frequencies
  - Computers (Number of, Type, Age, Replacement Plan)
    - In Apparatus?
    - Software Programs

- **Training**
  - Training Records (Last 3 years) for each member
    - Training schedule
    - Training hours per month per employee
    - Training Curriculum & Lesson Plan
    - Instructors qualifications
  - Training Manual
  - Certifications Categories (state)
  - Special Teams – certifications
  - All current employees' certification level

- **Fire Prevention –**
  - Number of inspectable occupancies

- History of Inspections & Re-Inspections (Last 3 Years)
- Identification of Codes Adopted

- **Safety Education**
  - Public Safety Education Programs
  - Public Safety Education Data (Last 3 Years)

- **Fiscal**
  - Past three years of audited year financial statement
  - Current year audited financials
  - Past three years budget
    - Operating – include all revenue and expenses
    - Capital - include all revenue and expenses
  - Financial policies and procedures
  - Purchasing policies
  - Equipment or Capital reserve fund ledger
  - Overtime records
  - Ambulance information –
    - Ambulance revenue current year and two previous years
    - Ambulance billing contract
    - Copy of ambulance rates charged and authority for those rates i.e. ordinance
  - Identification of all accounts for the department
    - Account details for each of the above accounts – last three years

  - **Revenue**
    - List of grants applied for and/or received for current year and two previous years
    - List 2% fire dues received current year and two previous years
    - List and explanation of any other department revenue received i.e. inspections fees, permit fee, etc.
  - Other information needed:
    - Equalized market value(EAV) if multiple communities for all

- **Resource Hospital**
  - Project Medical Director contact information
  - Involvement level with resource hospital
  - Breakdown of where patients are transported (3-year period)

Any Additional Information Deemed Important

Appendix B – NFPA 1500 Emission Exhaust Standards

NFPA 1500 A.10.1.5 2018 edition

The operation of a fire department requires the storage and indoor operation of the fire apparatus that are generally housed in an enclosed building. The need to keep the apparatus and other vehicles ready for immediate service and in good operating condition, which requires the indoor running of vehicles for response and routine service/pump checks, makes storage in an enclosed area, such as an apparatus bay necessary. The exhaust from all internal combustion engines, including diesel and gasoline-powered engines, contains over 100 individual hazardous chemical components that, when combined can result in as many as 10,000 chemical compounds. A large majority of these compounds are today listed by state and federal regulatory agencies as being cancer causing or suspected carcinogens. The target components listed by NIOSH/OSHA consist of both hydrocarbon carbon components and compounds, which are produced as both gas-phase and particulate-phase compounds. The gases and particulates, which are viewed by NIOSH and OSHA as life threatening, consist of a cancer-causing substance known as polynuclar aromatic hydrocarbons (PAHs). Gases in diesel exhaust, such as nitrous oxide, nitrogen dioxide, formaldehyde, benzene, sulfur dioxide, hydrogen sulfide, carbon dioxide, and carbon monoxide, can also create health problems. According to NIOSH, human and animal studies show that diesel exhaust should be treated as human carcinogen (cancer-causing substances). In accordance with the NIOSH Pocket Guide to Chemical Hazards, as it pertains to diesel exhaust, NIOSH recommends that occupational exposure to carcinogens be limited to the lowest feasible concentration. NIOSH uses OSHA's classification, outlined in 29 CFR 1990.103, Definitions, which states in part, "Potential occupational carcinogen means any substance, or combination or mixture of substances, which causes an increased incidence of benign and / or malignant neoplasm, or a substantial decrease in the latency period between exposure and onset of neoplasm in humans or in one or more experimental mammalian species as the result of any oral, respiratory or dermal exposure, or any other exposure which results in the induction of tumors as a site other than the site of administration." This definition also includes any substance that is metabolized into one or more potential occupational carcinogen by mammals.