Feasibility of Consolidation of Fire Services

for

Jefferson Hills Borough
Allegheny County

Prepared by

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Fire Department Merger / Consolidation Study
Jefferson Hills Borough
Allegheny County, Pennsylvania

EXECUTIVE SUMMARY

This *Feasibility of Consolidation of Fire Services Study* of the Jefferson Hills Borough, Allegheny County, Volunteer Fire Companies was conducted by Nicholas Sohyda, Executive Fire Officer and Fire Services Consultant, by request of the Floreffe, Gill Hall, and Jefferson Hills 885 Volunteer Fire Companies and the Jefferson Hills Borough Council.

Careful analysis of the information and data collected has resulted in the conclusion that a full consolidation of the fire companies would provide for a more effective and efficient delivery of services to the residents of the borough. The companies have been "functionally" consolidated for several years, providing automatic aid to one another and participating in some training together. Additional benefits would include more personnel, improved working relationship, lower apparatus replacement costs, improved service delivery, decreased liability, increased potential for grants, and the potential for an improved ISO rating.

As part of the study, the consultant considered 3 alternatives:

1) Consolidation of the departments while continuing to operate out of 3 separate fire stations.
2) Consolidation of the departments with the closure of Floreffe Volunteer Fire Company and maintaining the existing fire station locations for the Jefferson Hills 885 and Gill Hall Volunteer Fire Companies .
3) Consolidation of the departments with the closure of the Floreffe Volunteer Fire Company, maintaining the current Gill Hall Volunteer Fire Company station location, and relocation of the Jefferson Hills 885 station to a renovated station on the site of the former Large Volunteer Fire Department.

After careful consideration to improve the quality of fire protection services in the borough, the consultant's recommendation is for the companies to consolidate, with the closure of the Floreffe Volunteer Fire Company, maintaining the current Gill Hall Volunteer Fire Company station location, and relocation of the Jefferson Hills 885 station to a renovated station on the site of the former Large Volunteer Fire Department.

In summary, the consolidation recommendations include:

- The fire companies jointly develop a set of rules, regulations, operating guidelines and by-laws for the consolidated department that are legally sound and follow industry best practices, including ISO and NFPA Standards.
- The fire companies and borough form a fire commission, with representation from the remaining fire companies and the borough to provide oversight and leadership during the consolidation process.
- The borough contract fire protection for the Floreffe Volunteer fire Compnmay's primary response area with Elrama Volunteer Fire Company, Washington County.
- The borough dissolve Jefferson Fire Rescue.
- The departments jointly apply for Staffing for Adequate Emergency Response (SAFER) Funding in 2017 to support recruitment and retention programs.
- The funds from the sale of any existing apparatus, buildings, and property, be placed into an account for future fire apparatus and capital purchases.
- The fully consolidated fire company be placed under the supervision and direction of a fire chief that is appointed by the borough, based on an application and appointment process.
- The borough require, per House Bill No. 1133, annual reporting from the consolidated fire company regarding any funds provided to the companies by the borough.
- The department establish minimum initial and annual training requirements for structural firefighters, fire officers, and driver/operators.
- The department establish a plan to improve its ISO Public Protection Classification, including annual testing of fire hose, pumps, and aerials; the implementation of minimum training requirements; and improved recordkeeping.
- The remaining fire stations be equipped with vehicle exhaust removal systems.
- Stations with on-duty personnel be equipped with sleeping and shower facilities.

Additional recommendations are included throughout the body of this report.

The intent of this report is to improve the organization, operations, deployment and management of the fire companies. **The primary focus of this report is the future of fire service delivery to the residents of Jefferson Hills Borough.**

Many of the challenges faced by the fire companies regarding fire services delivery have developed over a long period due to a combination of declining volunteerism and commitment, increased service demands, and a lack of trust. The members of each company and the borough officials should be commended for their efforts, years of service, and the commissioning of this study to improve fire services delivery for the near future.

In today's busy and litigious society, with the increased service demands and time requirements placed on volunteers, fire companies cannot continue to operate autonomously with little to no oversight, exercising the excuse "we are only volunteers", while local governments look the other way. Both the residents of the borough and the fire companies should be grateful that the borough's elected officials have taken an active role in fire service delivery.

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I. INTRODUCTION

The Borough of Jefferson Hills, Floreffe Volunteer Fire Company, Gill Hall Volunteer Fire Company, Jefferson 885 Volunteer Fire Company, and Jefferson Fire Rescue, requested technical assistance from the Department of Community and Economic Development, Governor's Center for Local Government Services, to carry out an assessment of fire services delivery to explore the feasibility of combining volunteer fire services.

Nicholas Sohyda, Peer Consultant and Executive Fire Officer, was assigned to carry out this scope of services and provide a report of observations and recommendations to the Governor's Center, the governing body, the three volunteer fire service organizations, and Jefferson Fire Rescue.

An initial meeting was held on July 27, 2016 with representatives from the participating entities in order to develop the scope of services. The scope of services for this project included the following elements:

1) Facilities-location, size, condition and needs of current facilities both for each individual volunteer fire company and combined.
2) Vehicles-location, type, condition and needs of current vehicles both for each individual volunteer fire company and combined.
3) Capital Improvements and Purchases-future needs both for each individual volunteer fire company and combined relative to facilities, vehicles and equipment.
4) Fire Administration-sources, amounts and uses of current annual funding including municipal allocations for payment of various insurances and fire relief association funding, ability to generate revenue, level and types of expenditures including purchasing practices, bookkeeping and budgeting practices, reporting and record-keeping practices.
5) Fire Operations-manning levels, response time (type of fires, number of volunteers to respond and mutual aid arrangements and capacity), current ISO rating, and recruitment and retention of volunteers both for each individual volunteer fire company and combined.
6) Explore Feasibility of Combining Fire Service Delivery Systems (Merger or Consolidation)-operations, resources, liabilities and trends relative to duplication, sharing of services, work force, fundraising and reconfiguration of facilities, vehicles and equipment.
7) Managerial, Administrative and Operational Issues of Merger or Consolidation-The volunteer fire companies will draft by-laws and standard operating guidelines governing the consolidated organization. The borough will have a certified public accountant provide the peers consultant with financial information for all three fire companies and Jefferson Fire Rescue.

The procedures used to conduct this study included a review of fire service literature of Executive Fire Officer Papers, journal articles, national standards, ISO ratings, best management practices, and other various manuals and information available via the Internet. In addition to the initial meeting to develop a scope of services, the consultant visited each fire station and talked with members, a mid-report meeting was held with two of the borough's elected officials, and a final meeting was held to review the content of the report for accuracy.

Throughout the study, the fire companies were requested to provide specific information related to workload, by-laws, budgets, policies and procedures, practices of each service provider, staffing, apparatus, and facilities. For comparison purposes, the consultant relied on benchmarks and "best practices" developed by the:

National Fire Protection Association (NFPA) - The National Fire Protection Association is an organization that develops, publishes, and disseminates timely consensus standards covering all areas of fire safety. These NFPA standards have been adopted by numerous state and federal authorities, giving them the force of law. In Pennsylvania, NFPA standards are recognized as voluntary consensus standards.

Southwestern Pennsylvania Commission's (SPC) Standards for Effective Local Government – These standards are designed to assist local elected and appointed officials in determining the capacity and effectiveness of municipal operations in all areas of government, including fire operations, emergency medical services, and emergency management.

Insurance Services Office (ISO) - The Fire Suppression Rating Schedule (FSRS) is a manual containing the criteria ISO uses in reviewing the firefighting capabilities of individual communities. The schedule measures the major elements of a community's fire-suppression system and develops a numerical grading called a Public Protection Classification (PPCTM).

Center for Public Safety Excellence (CPSE) - The Center for Public Safety Excellence, Inc. (CPSE), a non-profit organization developed through a cooperative effort of the International City/County Manager's Association (ICMA) and the International Association of Fire Chief's (IAFC), establishes and promotes recognized professional standards to help fire agencies move beyond tactical deployment to continuous strategic improvement.

American Public Works Association (APWA) – The American Public Works Association (APWA) serves professionals in all aspects of public works—a fact that sets it apart from other organizations and makes it an effective voice of public works throughout North America. With a worldwide membership over 28,500 strong, APWA includes not only personnel from local, county, state/province, and federal agencies, but also private sector personnel who supply products and services to those professionals.

For the purposes of this study, it is assumed that the information provided by the fire companies and its members is accurate and complete.

II. BACKGROUND

Jefferson Hills Borough is a suburb of the City of Pittsburgh located within the South Hills region. The borough is 16.6 square miles of rolling hills and woods. The southeastern border is the Monongahela River. The borough consists primarily of single-family homes and commercial properties. As of the census of 2010, there were 10,619 residents occupying 4,285 households. The borough is served by three volunteer fire companies:

1. The Floreffe Volunteer Fire Company was chartered in 1946. The department is an all-volunteer department, located at 1540 State Street, near the Southern border of the borough, and comprised of approximately 30 members and 10 active firefighters.

2. The Gill Hall Volunteer Fire Department was chartered in 1948. The department is an all-volunteer department, located at 1228 Gill Hall Road, near the Western border of the borough, and comprised of approximately 45 members and 20 active firefighters.

3. The Jefferson Hills 885 Volunteer Fire Company was chartered in 1958. The department is a primarily volunteer department, located at 380 Wray Drive, in the northeastern portion of the borough, and comprised of approximately 100 members and 20 active firefighters. The department also houses the borough's shift firefighters, which consists of a roster of 40 members.

Figure 1: Jefferson Hills Borough

It is estimated that the volunteer fire companies save the borough approximately $1,026,250 per year in personnel costs, as opposed to having a full-time fire department.

As municipalities struggle to bring in revenue, fewer people have the time or desire to volunteer, training requirements become more stringent, and equipment becomes more expensive, the borough and the fire companies have taken a proactive approach to fire services delivery by commissioning this study to determine the feasibility of consolidating the departments.

In 2007, the General Assemble of Pennsylvania amended House Bill No. 1133 (Appendix A), entitled "An act concerning boroughs, and revising, amending and consolidating the law relating to boroughs," providing for specific powers of boroughs relating to emergency services. The Bill amends the specific powers of the Borough, stating that

> "The BOROUGH SHALL BE RESPONSIBLE FOR ENSURING THAT FIRE AND EMERGENCY MEDICAL SERVICES ARE PROVIDED WITHIN THE BOROUGH BY THE MEANS AND TO THE EXTENT DETERMINED BY THE BOROUGH, INCLUDING THE APPROPRIATE FINANCIAL AND ADMINISTRATIVE ASSISTANCE FOR THESE SERVICES. THE BOROUGH SHALL CONSULT WITH FIRE AND EMERGENCY MEDICAL SERVICES PROVIDERS TO DISCUSS THE EMERGENCY SERVICES NEEDS OF THE BOROUGH. THE BOROUGH SHALL REQUIRE ANY EMERGENCY SERVICES ORGANIZATION RECEIVING BOROUGH FUNDS TO PROVIDE TO THE BOROUGH AN ANNUAL ITEMIZED LISTING OF ALL EXPENDITURES OF THESE FUNDS BEFORE THE BOROUGH MAY CONSIDER BUDGETING ADDITIONAL FUNDING TO THE ORGANIZATION."

This amendment clearly places the responsibility to deliver fire protection on the municipalities, "to the means and extent they determine." With this responsibility, it is appropriate for the municipalities to study fire protection delivery and the feasibility of consolidation. Volunteer fire companies are not free; only the labor is free. Everything else costs the same.

Recommendation: Per Commonwealth law, the borough must require the fire company to submit an annual financial accounting of all funds received from the borough before allocating funds for the next fiscal year.

III. FACILITIES

The Floreffe Volunteer Fire Company, Allegheny County Station #178, is located at 1540 State Street, near the southern border of the Borough of Jefferson Hills.

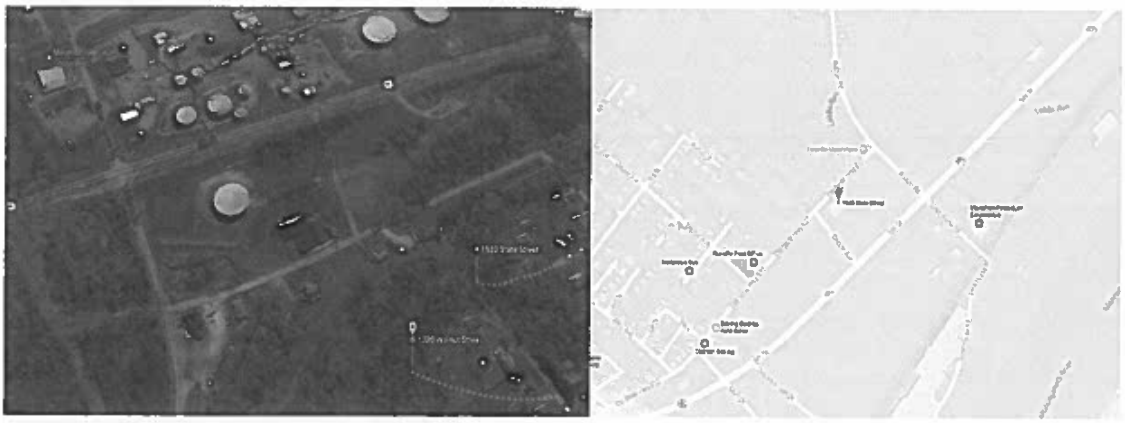

Figure 2: Aerial Photograph and Overhead Map of the Floreffe VFC

The 3-bay facility was built in approximately 1955. The facility has an adjacent social hall and a small meeting room. The building is owned by the fire department, but the property is leased from Marathon Oil Company. The 2017 County assessed value of the land is $47,700.00 and the assessed value of the building is $315,500.00. The facility is not equipped with a vehicle exhaust system, laundry, showers, or sleeping quarters.

Figure 3: Front View of the Floreffe VFC

The Elrama Volunteer Fire Company, Washington County, is located 0.5 miles to the West, the West Elizabeth Volunteer Fire Company is located 1.5 miles to the East, and the Gill Hall Volunteer Fire Company is located 4.0 miles to the North.

The Gill Hall Volunteer Fire Company, Allegheny County Station #179, is located at 1228 Gill Hall Road, in the western portion of the Borough of Jefferson Hills.

Figure 4: Aerial Photograph and Overhead Map of the Gill Hall VFC

The 4-bay facility was built in approximately 1964. The facility has an adjacent social hall and a small meeting room. The building and property are owned by the fire department. The 2017 County assessed value of the land is $325,400.00 and the assessed value of the building is $1,201,200.00. The facility is not equipped with a vehicle exhaust system, laundry, showers, or sleeping quarters.

The estimated cost to upgrade the facility to include vehicle exhaust, laundry, showers, a renovated day room for duty personnel, general renovations, and a new roof is $175,000.00.

Figure 5: Front View of the Gill Hall VFC

The Floreffe Volunteer Fire Company is located 4.0 miles to the South, the Broughton Volunteer Fire Company, South Park Township, is located 3.0 miles to the West, the Pleasant Hills Volunteer Fire Company, Borough of Pleasant Hills, is located 4.2 miles to the North,

and the Jefferson Hills 885 Volunteer Fire Company is located 4.8 miles to the Northeast of the Gill Hall station location.

The Jefferson Hills 885 Volunteer Fire Company, Allegheny County Station #180, is located at 380 Wray Drive, in the Northeastern portion of the Borough of Jefferson Hills.

Figure 6: Aerial Photograph and Overhead Map of the Jefferson Hills 885 VFC

The 4-bay facility was built in approximately 1968. The facility does not have a social hall. The building and property are owned by the fire department. The 2017 County assessed value of the land is $76,400.00 and the assessed value of the building is $281,700.00. The facility is not equipped with a vehicle exhaust system, laundry, showers, kitchen, or sleeping quarters.

Figure 7: Front View of the Jefferson Hills 885 VFC

The Clairton Fire Department is located 2.3 miles to the Southeast, the West Mifflin #3 Volunteer Fire Company is located 3.8 miles to the Northeast, the Pleasant Hills Volunteer Fire Company is located 4.5 miles to the Northwest, and the Gill Hall Volunteer Fire Company is located 4.8 miles to the Southeast of the Jefferson Hills 885 station location.

The Large Volunteer Fire Company, located at 1512 PA-51, was disbanded in 2002. This location is centrally located within the borough. The facility is currently being leased to a private contractor. The three-bay station has a small social hall and a kitchen.

Figure 8: Aerial Photograph and Overhead Map of the Large VFC Station Location

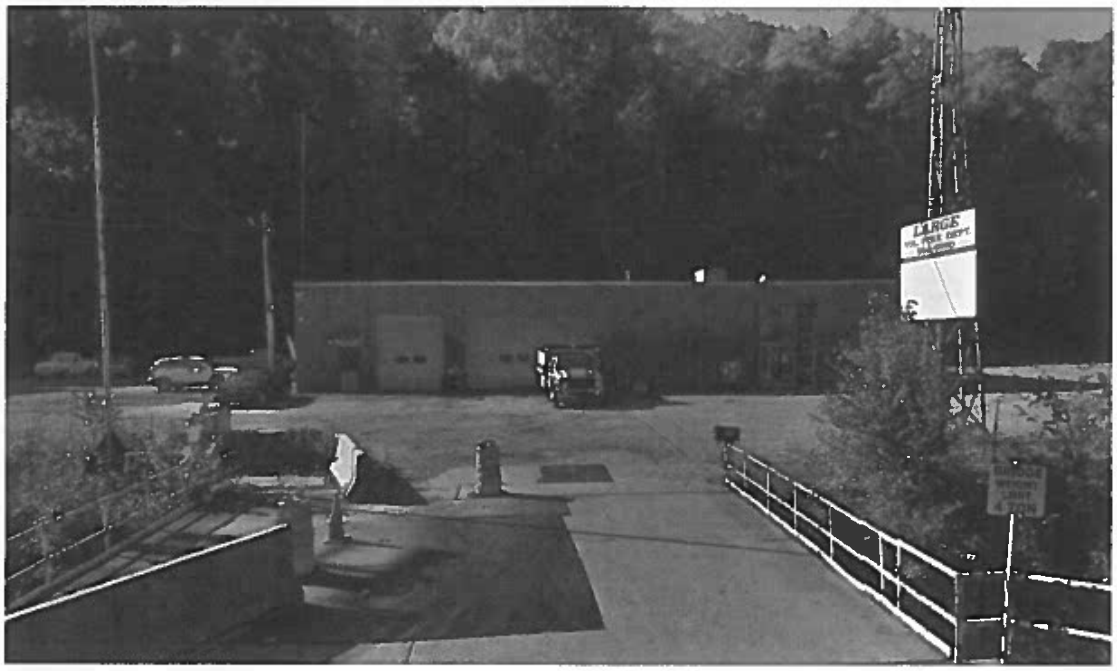

Figure 9: Front View of the Large VFC Station

The estimated costs to add a 2,500 square foot addition to the apparatus bay and renovate the facility to include kitchen, sleeping quarters, locker rooms, meeting room, etc. are between $1,750,000 and $2,000,000.

Recommendation: Due to a lack of call volume, membership, training, and reporting, the consultant recommends closing the Floreffe Volunteer Fire Company and contracting fire protection services for the Floreffe Volunteer Fire Company's primary service area to the Elrama Volunteer Fire Company. The Elrama Volunteer Fire Company, Washington County, is located 0.6 miles to the West and the West Elizabeth Volunteer Fire Company, Allegheny County, is located 2.7 miles to the East of the Floreffe station location.

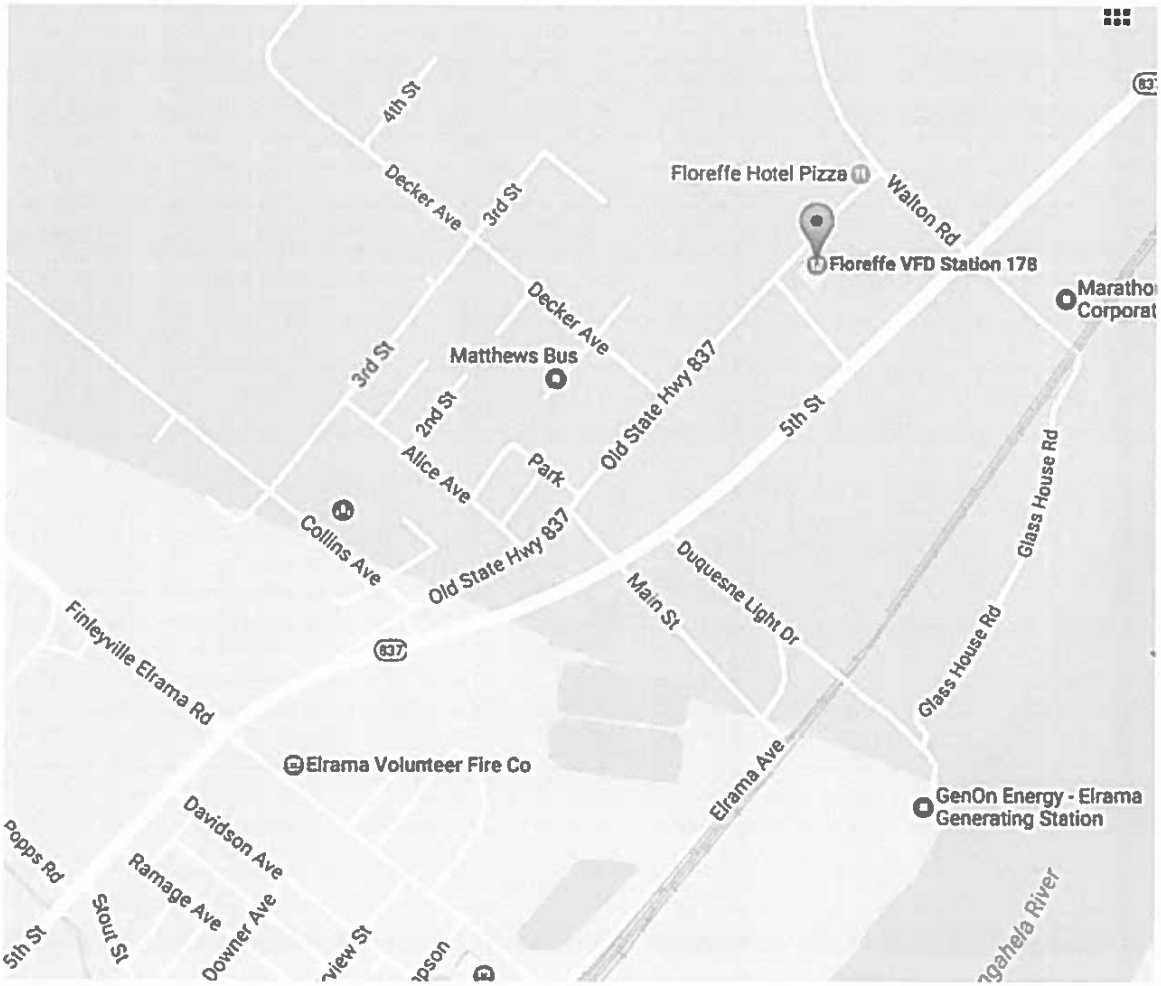

Figure 10: Location of the Floreffe VFC in Relation to the Elrama VFC

IV. FIRE DEPARTMENT FLEET

It is a generally accepted fact that fire apparatus, like all types of mechanical devices, have a finite life. The length of that life depends on many factors, including vehicle mileage and engine hours, quality of the preventative maintenance program, quality of the driver training program, whether the fire apparatus was used within the design parameters, whether the apparatus was manufactured on a custom or commercial chassis, quality of workmanship by the original manufacturer, quality of the components used, and availability of replacement parts, to name a few.

In the fire service, there are fire apparatus with 8 to 10 years of service that are simply worn out. There are also fire apparatus that were manufactured with quality components, that have had excellent maintenance, and that have responded to a minimum number of incidents that are still in serviceable condition after 20 years. Most would agree that the care of fire apparatus while being used and the quality and timeliness of maintenance are perhaps the most significant factors in determining how well a fire apparatus ages.

The volunteer fire companies operate the following equipment (Table 1 – Table 3):

Table 1: Floreffe Volunteer Fire Company Fleet

Year	Make	Type	Ownership
1971	Ford F-250	Brush Truck	Department
1991	E-One	Pumper	Department
2009	Spartan/Precision	Pumper	JFR
2009	Ford F-350	Brush	JFR

Table 2: Gill Hall Volunteer Fire Department Fleet

Year	Make	Type	Ownership
2000	F-550	Squad/Air	
2003	Ferrara	77' Aerial	JFR
2017	Spartan	Pumper	Department

Table 3: Jefferson 885 Volunteer Fire Company Fleet

Year	Make	Type	Ownership
1983	Mack	Tanker	
1984	American General	6x6 Brush	
1984	Mack/Grumman	Pumper	Department
2003	Saulsbury	Rescue Pumper	JFR
2008	Ford F-550	Utility	
2010	Pierce	105' Aerial	JFR
2015	Ford F-350	Squad	

National Fire Protection Association Standards for Apparatus Replacement

The National Fire Protection Association (NFPA) Standard on Automotive Fire Apparatus, Guidelines for First-Line and Reserve Fire Apparatus, recommends that apparatus greater than 15 years be placed in reserve status and upgraded to incorporate as many features as possible of the current fire apparatus standard. The recommended age for reserve apparatus is between twenty and twenty-three years, with applicable upgrades.

Definition of first-line fire apparatus: First-line fire apparatus must be manufactured to NFPA 1901 and must be maintained in accordance with NFPA 1912 and 1915.

Definition of reserve fire apparatus: Reserve fire apparatus is defined as apparatus manufactured to applicable NFPA 1901 editions, after 1991 and prior to the 2003 edition. Such apparatus must have been **upgraded to include as many of the features as possible** found in 2003 or newer units.

While NFPA Standards are not mandatory, they establish a datum point for age of apparatus and updating guidelines. Fire Departments that do not follow NFPA Guidelines assume full liability of retaining known deficient apparatus in service. To knowingly operate or approve of the operation of a vehicle that could kill or injure the public or a fire fighter severely exposes fire department officials to liability.

Based on NFPA recommendations, each company's existing apparatus should be replaced on the following schedule:

Table 4: NFPA Maximum Recommended Replacement Schedule

Year	Make	Type	Replacement Year	Est. Cost**
1971	Ford F-250	Brush	N/A	N/A
1983	Mack	Tanker	2003(+14)	$230,000
1984	Mack	Pumper	1999 (+18)	$510,000
1984	American General	Brush	2009(+8)	$80,000
1991	E-One	Pumper	2006(+11)	$510,000
2000	Ford F-550	Squad/Air	2025	$85,000
2003	Ferrara	75' Aerial	2018	$750,000
2003	Saulsbury	Rescue Pumper	2018	$650,000
2008	Ford F-550	Utility	2033	$65,000
2009	Sparatan/ Precision	Pumper	2024	$510,000
2009	Ford F-350	Brush	2034	$110,000
2010	Pierce	105' Aerial	2025	$1,000,000
2015	Ford F-350	Squad	2040	$48,000
2017	Spartan	Pumper	2032	$510,000
			Total	**$5,058,000**

** Costs are based on current costs. Inflation is not included in estimates.

Based on the current fleet and in order to meet the NFPA recommended replacement guidelines, the borough would need to budget approximately $220,000 per year to replace the existing fleet, not including inflation and interest.

American Public Works Association (APWA) Vehicle Replacement Guide

The American Public Works Association vehicle replacement guide uses a weighted point system based on age, usage, type of service, maintenance and repair costs and overall condition of the vehicle.

Age	1 point for every year of chronological age, based on in-service date.
Miles/Hours	1 point for each 10,000 miles or 1,000 engine hours of use.
Type of Service	1, 3, or 5 points based on type of service the unit is exposed to. First-line fire apparatus are classified as severe duty service.
Reliability	1, 3 or 5 points based on the frequency that the vehicle is in the shop for repair. A five would be assigned to a vehicle that is in the shop two or more times per month on average while a 1 would be assigned to once every 3 months or less.
M&R Costs	1 to 5 points based on total life maintenance and repair costs.
Condition	This category takes into consideration body condition, rust, interior condition, accident history, anticipated repairs, etc. A scale of 1 to 5 is used with 5 being poor condition.

Point Ranges	Fewer than 18 points	Excellent
	18 to 22 points	Good
	23 to 27 points	Qualifies for replacement
	28 points of above	Needs immediate consideration

Floreffe VFC Fleet

1971 Ford F-250 Brush Truck

Age	1971 (46 years old)	46 points
Miles	15,895 miles	1.5 points
Reliability	Reliable	3 points
Condition	Acceptable	4 points
M&R	Med-High	4 points
Type of Service	Brush	3 points
Total Points		60.5 points

1991 E-One Pumper

Age	1991 (26 years old)	26 points
Miles	17,613	1.75 points
	-OR-	
Hours	1,609	0 points
Reliability	Reliable	1 point
Condition	Acceptable	3 points
M&R	Low	2 point
Type of Service	Pumper	5 points
Total Points		37.75 points

2009 Spartan / Precision Pumper

Age	2009 (8 years old)	8 points
Miles	5,793 miles	1 point
Reliability	Reliable	1 point
Condition	Good	2 points
M&R	Low	2 points
Type of Service	Pumper	5 points
Total Points		19 points

2009 Ford F-350 Brush Truck

Age	2009 (8 years old)	8 points
Miles	3,772 miles	0 points
Reliability	Reliable	1 point
Condition	Good	2 points
M&R	Low	1 points
Type of Service	Brush	3 points
Total Points		15 points

Gill Hall VFD Fleet

2000 F-550 Utility/Air

Age	2000 (17 years old)	17 points
Miles	12,856	1 points
Reliability	Reliable	1 point
Condition	Acceptable-Poor	4 points
M&R	Low	1 points
Type of Service	Utility	3 points
Total Points		27 points

2003 Ferrara 77' Aerial

Age	2003 (14 years old)	14 points
Miles	16,106	1.5 points
Reliability	Moderate	3 point
Condition	Acceptable	3 points
M&R	Low	2 points
Type of Service	Aerial	5 points
Total Points		28.5 points

2017 Spartan ERV Pumper

Age	2017 (0 years old)	0 points
Miles	0 miles	0 point
	-OR-	
Hours	0 hours	0 points
Reliability	Reliable	1 point
Condition	Excellent	1 points
M&R	Low	1 point
Type of Service	Pumper	5 points
Total Points		8 points

Jefferson 885 VFC Fleet

1983 Mack Tanker

Age	1983 (34 years old)	34 points
Miles	87,366	8 points
	-OR-	
Hours	8,023	0 points
Reliability	Acceptable	3 points
Condition	Acceptable-Poor	4 points
M&R	Moderate	3 points
Type of Service	Tanker	5 points
Total Points		57 points

1984 American General 6x6 Brush Truck

Age	1984 (33 years old)	33 points
Miles	50,858	5 points
	-OR-	
Hours	268 hours	0 points
Reliability	Good	2 points
Condition	Acceptable-Poor	4 points
M&R	Average	3 points
Type of Service	Brush	3 points
Total Points		50 points

1984 Mack / Grumman Pumper

Age	1984 (33 years old)	33 points
Miles	53,326	5 points
	-OR-	
Hours		0 points
Reliability	Acceptable	3 points
Condition	Poor	5 points
M&R	Average-Poor	4 points
Type of Service	Pumper	5 points
Total Points		55 points

2003 Saulsbury Rescue Pumper

Age	2003 (14 years old)	14 points
Miles	26,143	2 points
	-OR-	
Hours	2,599	0 points
Reliability	Poor	5 points
Condition	Acceptable	3 points
M&R	Average	3 points
Type of Service	Pumper	5 points
Total Points		32 points

2008 Ford F-550 Utility

Age	2008 (9 years old)	9 points
Miles	10,139	1 point
Reliability	Good	1 point
Condition	Good	1 point
M&R	Low	1 point
Type of Service	Utility	1 point
Total Points		14 points

2010 Pierce 105' Aerial

Age	2010 (7 years old)	7 points
Miles	8,545	0 points
	-OR-	
Hours	1,047	1 point
Reliability	Good	1 point
Condition	Good	2 points
M&R	Low	1 point
Type of Service	Aerial	5 points
Total Points		17 points

2015 Ford F-350 Squad

Age	2015 (2 years old)	2 points
Miles	8,551	.75 points
Reliability	Good	1 point
Condition	Good	1 point
M&R	Low	1 point
Type of Service	Squad	1 point
Total Points		6.75 points

Based upon the APWA Vehicle Weighted Point System, the current apparatus ranks as:

Table 5: APWA Vehicle Ratings

Excellent	Good	Qualifies for Replacement	Needs Immediate Consideration
2009 Ford F-350 Brush	**2009 Spartan / Precision Pumper**	**2000 F-550 Utility/Air**	**1971 Ford F-250 Brush**
2015 Ford F-350 Squad			**1983 Mack Tanker**
2010 Pierce Aerial			**1984 American General Brush**
2008 Ford F-550 Utility			**1984 Mack Pumper**
2017 Spartan Pumper			**1991 E-One Pumper**
			2003 Ferrara Aerial
			2003 Saulsbury Rescue/Pumper

Based upon ISO Requirements, NFPA recommendations, APWA Ratings, organizational and community needs, call volumes, maintenance, budgets, etc., the following apparatus capital replacement schedule has been developed for the consolidated organization assuming it continues to deploy apparatus from three stations (Table 6):

Table 6: Recommended Replacement Schedule Maintaining 3 Stations

Year	Make	Type	Replacement Year	Est. Cost**
1971	Ford F-250	Brush	N/A	N/A
1983	Mack	Tanker	2018	$230,000
1984	Mack	Pumper	N/A	N/A
1984	American General	Brush	2021	$80,000
1991	E-One	Pumper	N/A	N/A
2000	Ford F-550	Squad/Air	2025	$85,000
2003	Ferrara	75' Aerial	2018	$750,000
2003	Saulsbury	Rescue Pumper	2018	$650,000
2008	Ford F-550	N/A	N/A	N/A
2009	Spartan/ Precision	Pumper	2029	$510,000
2009	Ford F-350	Brush	2034	$110,000
2010	Pierce	105' Aerial	2025	$1,000,000
2015	Ford F-350	Squad	2040	$48,000
2017	Spartan	Pumper	2032	$510,000
			Total	$3,987,000

Based upon the APWA Vehcile Weighted Point System, while maintaining 3 stations, the borough would need to budget approximately $148,350 per year to replace the existing fleet, not including inflation and interest.

Approximately $45,000 would need to be budgeted annually for apparatus maintenance and repairs.

Table 7: Recommended Apparatus Replacement Schedule with 2 Stations

Year	Make	Type	Replacement Year	Est. Cost**
1971	Ford F-250	Brush	N/A	N/A
1983	Mack	Tanker	2018	$230,000
1984	Mack	Pumper	N/A	N/A
1984	American General	Brush	2021	$80,000
1991	E-One	Pumper	N/A	N/A
2000	Ford F-550	Squad/Air	2025	$85,000
2003	Ferrara	75' Aerial	N/A	N/A
2003	Saulsbury	Rescue Pumper	2018	$650,000
2008	Ford F-550	N/A	N/A	N/A
2009	Sparatan/ Precision	Pumper	2024	$510,000
2009	Ford F-350	Brush	2034	$110,000
2010	Pierce	105' Aerial	2025	$1,000,000
2015	Ford F-350	Squad	2040	$48,000
2017	Spartan	Pumper	2032	$510,000
			Total	$3,223,000

Based on the recommended fleet replacement schedule while maintaining 2 stations, the borough would need to budget approximately $116,000 per year to replace the existing fleet, not including inflation and interest.

Operating out of a two stations, the combined department could provide adequate service with one rescue/pumper, one aerial, one brush truck, one tanker, and one utility vehicle in one station and two pumpers, one brush truck, and one utility vehicle in the second station.

Jefferson/Large Station

Rescue/Pumper
105' Aerial
Squad
Brush
Tanker

Gill Hall Station

Pumper
Pumper
Brush
Squad

Approximately $35,000 would need be budgeted annually for apparatus maintenance and repairs.

V. FIRE OPERATIONS

The key to a fire department's success at an incident is adequate staffing and coordinated teamwork. A historical analysis of response provides a means of replacing qualitative distinctions with quantitative distinctions. Measurement introduces precision into judgments. A historical analysis of emergency responses for the previous three-year period was conducted of all of the fire companies.

The historical response analysis of the Gill Hall and Jefferson Hills 885 Volunteer Fire Companies is based upon data retrieved from each department's Emergency Reporting Software. The software was provided free of charge to every department in the Commonwealth in 2015. The software allows the department's to provide the consultant with detailed reports and queries.

The Floreffe Volunteer Fire Company was unable to provide any electronic records. The lack of an electronic records management system also makes the department ineligible for state grant funds that are distributed to all volunteer fire companies in the Commonwealth on an annual basis. The company is one of only two companies in Allegheny County that failed to report in 2016. Floreffe response data is based upon information provide by both Gill Hall and Jefferson Hills 885.

Over the previous 3-year period, Jefferson Hills 885 had 70% of the overall call load in their primary response area, Gill Hall had 23% of the overall call load in their primary response area, and Floreffe had 9% of the overall call load in their primary response area.

Table 8: Calls by Primary Response District

	Jefferson 885	Gill Hall	Floreffe
2014	236	58	25
2015	180	60	23
2016	173	73	21
TOTAL	589	191	69
PERCENTAGE	70%	23%	9%

In addition, the departments provide automatic and mutual aid to one another and surrounding communities, for a total call volume of:

Table 9: Total Number of Responses by Department

	Jefferson 885	Gill Hall	Floreffe
2014	426	100	
2015	367	185	
2016	336	267	
TOTAL	1,129	191	

Response Benchmarks

Fire Department performance is generally graded against two benchmarks – Standards of Cover (NFPA 1720) and the Insurance Services Office (ISO) Grading Schedule.

The basic premise behind Standard of Cover is that in order to control a building fire with minimal life and property loss, a fire department must be able to place an adequate amount of firefighters and equipment on the fire scene, ready to engage an emergency, within a given timeframe.

The resource needs and timeframe are driven by the growth process of a typical fire. Once ignition occurs, a fire does not grow in a linear fashion, it grows exponentially. Unchecked, it ultimately reaches a point known as "flashover." At flashover, a fire changes from involvement of a limited area of the room to a full fire involvement of the space. This event occurs almost explosively. Flashover is a critical stage of fire growth for two reasons. First, a person in a flashover room cannot survive. Others within the building will likely be injured and possibly trapped. Second, the rate of combustion and fire spread increases dramatically, making victim location and rescue far more difficult. Fire control will require more hose lines and water flow.

Control of a pre-flashover fire can be safely accomplished with a minimum amount of resources. When a small crew of firefighters is able to begin fire control activities on a small appliance fire, a cooking accident, an overheated motor, a smoldering mattress or similar incident prior to flashover, the chance of injury or loss of life is low and damage is usually minor.

On the other hand, once a flashover occurs, a large complement of firefighters will be needed for fire control and the likelihood of life loss or injury to both occupants and firefighters is high. Damage will be substantial often resulting in total destruction of the building and contents. Clearly, a fire department's best opportunity to alter the course of the emergency, stop loss and minimize the negative consequences is to intervene as early as possible in the fire timeline.

Recognizing that a quickly arriving unit may be able to engage a fire before flashover, Standard of Cover for career fire departments establishes two time benchmarks, one for the arrival of the first unit, and a second for arrival of the remaining resources. Therefore, the standard expects an initial firefighting unit staffed with a minimum of four personnel to have a turnout time of 1 minute or less and a travel time of 4 minutes or less for a total turnout time of 5 minutes. Subsequent firefighting units (second due engine and a truck staffed with a minimum of 4 firefighters each) should arrive within a total of 9 minutes from dispatch. Setup time is a function of the magnitude of the fire upon arrival, the ease of deployment of hose lines, and the number of firefighters arriving and their level of skill and training. Thus, setup time will be longer for more serious incidents and in situations with personnel shortages.

For volunteer departments, the Standard of Cover establishes a single benchmark to ensure that a sufficient number of members are available to operate safely and effectively, realizing that a volunteer department is unlikely to arrive and engage a fire before flashover.

Substantial research on resource needs for fire control has been conducted by the National Fire Protection Association (NFPA), the Commission on Fire Accreditation International (CFAI), and several large city fire departments. The data collected determined that at a fire in an occupied structure, a minimum of eight tasks must be simultaneously conducted to stop the loss of civilian lives, stop further property loss and keep the risk to firefighters at a reasonable level. The critical tasks on the initial alarm are for a response to a structural fire in a typical 2,000 ft^2, two-story, single-family occupancy without a basement and with no exposures (detached home) is as follows:

(1) Establishment of incident command outside of the hazard area for the overall coordination and direction of the initial full alarm assignment. A minimum of one individual shall be dedicated to this task.
(2) Establishment of an uninterrupted water supply of 400 gpm for 30 minutes. Supply line(s) shall be maintained by an operator who shall ensure uninterrupted water flow application.
(3) Establishment of an effective water flow application rate of 300 gpm from two hand lines, each of which shall have a minimum of 100 gpm. Each attack and backup line shall be operated by a minimum of two individuals to effectively and safely maintain the line.
(4) Provision of one support person for each attack and backup line deployed to provide hydrant hookup and to assist in line lays, utility control, and forcible entry.
(5) A minimum of one victim search and rescue team shall be part of the initial full alarm assignment. Each search and rescue team shall consist of a minimum of two individuals.
(6) A minimum of one ventilation team shall be part of the initial full alarm assignment. Each ventilation team shall consist of a minimum of two individuals.
(7) If an aerial device is used in operations, one person shall function as an aerial operator who shall maintain primary control of the aerial device at all times.
(8) Establishment of a Rapid Intervention Crew that shall consist of a minimum of two properly equipped and trained individuals.

Based on this scenario, the hazards presented of which are not unusual, as all communities respond to fire incidents in this type of structure on a regular basis, a minimum of 15 firefighters are needed to accomplish these tasks. Other occupancies and structures in the community that present greater hazards should be addressed by additional fire fighter functions and additional responding personnel on the initial full alarm assignment.

The ability of adequate fire suppression forces to greatly influence the outcome of a structural fire is undeniable and predictable. Data generated by NFPA provide empirical data that rapid and aggressive interior attack can substantially reduce the human and property losses associated with structural fires.

Table 10 – Fire Extension in Residential Structures 1994 - 2004

Rate per 1000 Fires			
Extension	**Civilian Deaths**	**Civilian Injuries**	**Dollar Loss per Fire**
Confined to the room of origin	2.32	35.19	3,185
Beyond the room but confined to the floor of origin	19.68	96.86	22,720
Beyond the floor of origin	26.54	63.48	31,912
Note: Residential structures include dwellings, duplexes, manufactured homes (also called mobile homes), apartments, row houses, townhouses, hotels and motels, dormitories, and barracks.			

National Fire Protection Standard 1720, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments*, was developed in 2001 as the benchmark standard for defining levels of service, deployment capabilities, and staffing levels for substantially volunteer fire departments. The purpose of this standard is to specify the minimum criteria addressing the effectiveness and efficiency of the volunteer public fire suppression operations, emergency medical service, and special operations delivery in protecting the citizens of the jurisdiction. The requirements of the standard address functions and outcomes of fire department emergency service delivery, response capabilities, and resources. The standard also contains minimum requirements for managing resources and systems, such as health and safety, incident management, training, communications, and pre-incident planning.

The NFPA staffing and response benchmarks for volunteer departments are based on community demographics:

Table 11: NFPA 1720 Response Benchmarks for Volunteer Fire Departments

Demand Zone	Demographics	Staffing and Response Time	Percentage
Urban	>1,000 people/mi.^{2}	15 / 9	90
Suburban	500 – 1,000 people/mi.^{2}	10/10	80
Rural	<500 people/mi.^{2}	6 / 14	80

Based on the population densities, the areas served by the fire companies are classified as **"Suburban"** demand zones. Combining the time benchmarks and resource needs, the fire

companies should be able to place at least one firefighting unit and a minimum of ten firefighters at a fire scene within ten minutes of dispatch 80% of the time. It must also be noted that these are the minimum acceptable standards for substantially volunteer departments and they are based on a fire in a relatively small detached dwelling.

The consultant was unable to provide a detailed analysis of response times for the departments due to the inaccuracy of the data provided by the Allegheny County 911 Center, the lack of data from the Floreffe Volunteer Fire Company, and the Emergency Reporting Software being fairly new to both Jefferson Hills 885 and Gill Hall.. It is not known how long it is taking the departments, including automatic and mutual aid, to meet the effective response force assembly time for a minimum of ten firefighters.

The challenge that any community faces is how to achieve an above average level of fire protection for its citizens at a cost that is affordable. Jefferson Borough is like countless other communities nationwide that are struggling with this issue.

The second measure of fire department service is the Insurance Services Office (ISO) Public Protection Classification Rating System. Using a scale of 1 to 10 (1 being best, 10 being no protection), the ISO rates fire protection in thousands of communities throughout the country. The rating is used by insurance companies to set premiums on properties it insurers. Commercial, industrial, mercantile, institutional and multi-family dwellings are the most highly impacted properties when a community's rating changes.

The Insurance Services Office conducted a community classification survey of the borough in 2012, using the old grading schedule. A updated grading schedule was released in 2014. ISO classifications have been developed for use in property insurance premium classifications. Jefferson Hills Borough's Public Protection Classification is a Class 5 (Table 12):

Table12: ISO Grading Sheet

Item	Max Credit	Jefferson Hills
Telephone Service	2.00	1.70
Operators	3.00	3.00
Dispatch Circuits	5.00	4.75
Total Communications	10.00	9.45
Engine Companies	10.00	4.88
Reserve Pumpers	1.00	0.33
Pump Capacity	5.00	5.00
Ladder/Service Co.	5.00	2.48
Reserve Ladder/Service	1.00	0.18
Distribution	4.00	2.00
Personnel	15.00	2.89
Training	9.00	1.73
Total Fire Department	50.00	19.49
Water System	35.00	24.67
Hydrants	2.00	2.00
Hydrant Inspection	3.00	3.00
Total Water Supply	40.00	29.67
Divergence		-7.04
Total	100.00	51.57
Classification	1 - 10	5

Divergence is a reduction in credit to reflect a difference in the relative credits or Fire Department & Water Supply.

Each component is evaluated using a fractional point scale and added together to establish the community point total. Additionally, points are subtracted, known as Divergence, when the water supply is relatively better than the fire department or vice versa. The thinking is that a good water supply would be underutilized with an ineffective fire department and conversely, the best fire departments would be less effective with a sub-standard water supply.

When an ISO representative conducts a fire department assessment, areas examined include recordkeeping practices; pumper, aerial, and hose tests; apparatus equipment; personnel training, and deployment protocols. Receiving and handling fire alarms reviews the facilities provided for the general public to report fires, and for the operator on duty at the communications center to dispatch fire department companies to the fires. In reality, this is an evaluation of the Allegheny County 9-1-1 Center and the community and the fire department can do very little to improve their rating in this area, unless improvements are made at the Center.

The fire department section reviews the engine and ladder-service companies, equipment carried, response to fires, training and available fire fighters. Based on required fire flow and number of buildings greater than four stories in height, the municipalities' minimum apparatus needs are as follows (Table 13):

Table 13: ISO Minimum Apparatus Requirements

Municipality	# of Engines	# of Ladders	# of Service
Jefferson Hills	3	1	0

The most important ISO factor is firefighter response to structural fires. The grading schedule's premise, much like the Standard of Cover, is that fires will be controlled quicker and with less damage when large numbers of firefighters are available in a short timeframe. As such, the single largest point factor is awarded for firefighter response. Because of immediate availability, full credit is given for any on-duty firefighters. Since it is assumed that any firefighter not on-duty will have a longer response time, only one-third credit is given for any firefighter who is not on duty (volunteers). In the 2012 report, the ISO recognized an average of 0.54 on-duty personnel and 11.7 volunteers/off-duty personnel responding on a first alarm for structural fires.

By either measure, Standard of Cover or ISO Grading, an inadequate number of firefighters not only reduce the effectiveness of rescue and firefighting efforts, it significantly increases the dangers to the firefighters. Operating understaffed at fires invariably results in safety short-cuts, freelancing on the fire ground and increased physical stress. Nationally, firefighter injury studies consistently show a link between personnel shortages and increased injury rates.

Areas identified by the consultant to improve the borough's ISO grading include:

1) Engine Companies – ensure all engine companies are carrying required NFPA 1901 equipment and provide for the annual testing of fire hose and fire pumps.
2) Ladder/Service Companies – ensure all ladder companies are carrying NFPA 1901 required equipment and provide for the annual testing of aerial devices.
3) Personnel – Improve response of existing volunteer staff, provide for the recruitment of additional volunteers, utilize and document automatic aid responses and personnel for structure fires, and improve record keeping and response data for structural fire incidents. Current average of 0.54 on duty personnel and 11.77 volunteers.

4) Training – Establish minimum annual training requirements
    - Minimum 3 hours per month (average 36 hours annually) for structural firefighters.
    - Require all structural firefighters to complete a minimum of 8 hours of live-fire training annually.
    - Require all officers to complete a minimum of 12 hours of officer training annually.
    - Require all drivers/operators to complete a minimum of 12 hours of operator training annually.
    - Require all new operators to complete a minimum of 40 hours of driver/operator training.
    - Conduct a minimum of four multi-company drills annually.
5) Recordkeeping – Throughout the report, there are **numerous** point deductions for missing or incomplete records. Require all training to be properly documented in the department's records management system.

VI. TRAINING

Maintaining the competency of fire department personnel in the 21st century can challenge departments of all sizes. It's a challenge that last throughout each member's career. Recruits need to learn the basics. Firefighters with proven operational skills need additional instruction to take on supervisory roles (Buckman, 2006).

As the fire service becomes more complex and diversified, required knowledge, government regulations, and professional standards all lead to increases in overall training needs for a department. Documentation and records management are essential elements of this process. It is the responsibility of the fire chief or designated training officer to organize and schedule training.

There are not any "mandatory" training requirements for firefighters regulated by the Commonwealth. Fire protection delivery, including requirements for firefighter training, is determined locally by the Authority Having Jurisdiction, the fire chief, the fire department, and elected officials. The Commonwealth, National Fire Protection Association (NFPA) and Insurance Services Office (ISO) do; however, provide recommended standards and training guidance.

A reasonable training requirement would be a minimum of 36 hours per year (one 3-hour drill per month) to maintain a level of proficiency. A monthly drill schedule should be established that incorporates some flexibility for volunteers to meet training requirements (i.e. two or three evening drills per month). NFPA guidelines, the ISO rating schedule, and local needs should be considered when developing a training schedule.

Both Jefferson Hills 885 and Gill Hall have formal, in-house training programs, with training sessions held every Thursday night. Floreffe does not have a formal, in-house training

program/night. All three companies require new members to go through the state's recommended introductory training program, *Essentials of Firefighting.*

According to the ISO, the minimum hours of on-going training a fire fighter should receive is four (4) hours per month. These hours must be documented and kept on file for a period of at least three years. This training can be conducted by anyone qualified to instruct regardless of certification but must be documented and must be a departmental priority.

Additionally, for the department to receive full ISO credit, annual drills must be conducted to test firefighter skills competency and the fire department must participate in eight half-day (3 hour) drills, four multiple company (3 hour) drills, and two night drills (3 hours). Two days per year (12 hours) is required of all officers to train on supervisory skills, management, and strategy and tactics. Driver/operators are required to attend four half-day sessions per year (12 hours) to train in pump operations, hydraulics, and safe driving practices. New driver/operators are required to have a minimum of 40 hours of documented training. New firefighters are required to participate in 240 hours of documented introductory-level training.

The NFPA requires all suppression level firefighters to participate in a minimum of 24-hours of structural-related fire training per year. The following requirements are from the NFPA 1500 *Standard on Fire Department Occupational Safety and Health Program, 2007 edition, Chapter 5, Training, Education and Professional Development.* Sections of the Standard that are not applicable to the Volunteer Fire Departments have been removed.

These requirements include:

5.1 General Requirements.

5.1.1 The fire department shall establish and maintain a training, education, and professional development program with a goal of preventing occupational deaths, injuries, and illnesses.

5.1.2 The fire department shall provide training, education, and professional development for all department members commensurate with the duties and functions that they are expected to perform.

5.1.3 The fire department shall establish training and education programs that provide new members initial training, proficiency opportunities, and a method of skill and knowledge evaluation for duties assigned to the member prior to engaging in emergency operations.

5.1.4 The fire department shall restrict the activities of new members during emergency operations until the member has demonstrated the skills and abilities to complete the tasks expected.

5.1.5 The fire department shall provide all members with training and education on the department's risk management plan.

5.1.6 The fire department shall provide all members with training and education on the department's written procedures.

5.1.7 The fire department shall provide all members with a training and education program that covers the operation, limitation, maintenance, and retirement criteria for all assigned personal protective equipment (PPE) expected to be utilized by members.

5.1.8 As a duty function, members shall be responsible to maintain proficiency in their skills and knowledge, and to avail themselves of the professional development provided to the members through department training and education programs.

5.1.9 Training programs for all members engaged in emergency operations shall include procedures for the safe exit and accountability of members during rapid evacuation, equipment failure, or other dangerous situations and events.

5.1.10 All members who are likely to be involved in emergency operations shall be trained in the incident management and accountability system used by the fire department.

5.2 Member Qualifications.

5.2.1 All members who engage in structural fire fighting shall meet the requirements of NFPA 1001, *Standard for Fire Fighter Professional Qualifications.*

5.2.2 All driver/operators shall meet the requirements of NFPA 1002, *Standard for Fire Apparatus Driver/Operator Professional Qualifications.*

5.2.3 All fire officers shall meet the requirements of NFPA 1021, *Standard for Fire Officer Professional Qualifications.*

5.2.4 All members responding to hazardous materials incidents shall meet the operations level as required in NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents.*

While certification is not required in Pennsylvania to operate as a member of a fire department, certification is used to determine, without doubt, that any person so measured does truly possess the skills required to safely and efficiently operate as a member of a fire company. Certification provides recognition that a member has demonstrated proficiency and an ability to do the job in accordance with nationally recognized peer standards. It provides for a common yardstick and a level playing field for all fire service personnel, regardless of status as a volunteer or career member.

As part of the State Volunteer Fire Company Volunteer Ambulance Service Grant Program, certification is encouraged and additional funding is awarded to departments based on the number of members certified.

5.3 Training Requirements.

5.3.1 The fire department shall adopt or develop training and education curriculums that meet the minimum requirements outlined in professional qualification standards covering a member's assigned function.

5.3.2 The fire department shall provide training, education, and professional development programs as required to support the minimum qualifications and certifications expected of its members.

5.3.3 Members shall practice assigned skill sets on a regular basis but not less than annually.

5.3.4 The fire department shall provide specific training to members when written policies, practices, procedures, or guidelines are changed and/or updated.

5.3.5 The respiratory protection training program shall meet the requirements of NFPA 1404, *Standard for Fire Service Respiratory Protection Training.*

5.3.6 All live fire training and exercises shall be conducted in accordance with NFPA 1403, *Standard on Live Fire Training Evolutions.*

5.3.7 All training and exercises shall be conducted under the direct supervision of a qualified instructor.

5.3.8 Members shall be fully trained in the care, use, inspection, maintenance, and limitations of the protective clothing and protective equipment assigned to them or available for their use.

5.3.9 All members shall meet the training requirements as outlined in NFPA 1561, *Standard on Emergency Services Incident Management System.*

5.3.10 All members shall meet the training requirements as outlined in NFPA 1581, *Standard on Fire Department Infection Control Program.*

5.5 Member Proficiency.

5.5.1 The fire department shall develop a recurring proficiency cycle with the goal of preventing skill degradation and potential for injury and death of members.

5.5.2 The fire department shall develop and maintain a system to monitor and measure training progress and activities of its members.

5.5.3 The fire department shall provide an annual skills check to verify minimum professional qualifications of its members.

The SPC's Standards for Effective Local Government require all fire personnel, whether paid or volunteer, have received basic, certified, training in firefighting and have regular and mandatory in-service training and drills with training goals based on the standards set forth by the NFPA.

While it is uncommon for volunteer fire services to fully comply with all of these standards and best practices, formalized and continuous training is essential to the delivery of adequate fire protection with the advent of new technology and building materials, increased liability, and delivering the most effective, efficient, and safe services to accomplish a fire department's mission.

The fire departments received 1.73 points of a maximum of 9.0 points for credit for training in the 20`2 ISO Survey, due to a lack of training, use of available training facilities, and a lack of recordkeeping. A designated Borough Training Officer would be better able to identify organization-wide training needs and develop programs to meet those needs. Some of those programs might include in-house training activities, on-duty drills, and outside training.

VII. ADMINISTRATION & BUDGETING

Hosack, Specht, Muetzel, & Woods was hired by the borough to conduct an agreed-upon independent accounting of each department and Jefferson Fire Rescue's revenues and expenditures (Appendix A). This was not an audit; therefore, an expression of an opinion on accounting records and procedures is not included.

The accounting report was used to develop an annual operating budget for the consolidated department (Table 14):

Table 14: Operating Budget for a Consolidated Borough Department

REVENUE	
Municipal Allocation (previously to JFR)	$288,500
Donations	$34,000
Fundraising	$40,000
Charges for Service	$15,000
State Grants	$26,000
TOTAL REVENUE	**$403,500**
EXPENDITURES	
P/T Salaries, including annual stipend for fire chief	$33,280
Taxes	$3,600
Insurance - Personnel	$5,250
Insurance – Apparatus & Buildings	$16,200
Memberships - Organizational	$11,000
Utilities – Telephone	$5,200
Utilities - Water	$2,500
Utilities – Electric	$11,300
Utilities – Heating	$10,000
Utilities – Fuel	$7,000
Repairs – Apparatus	$35,000
Repairs - Building	$5,000
Repairs – General	$4,000
Contractual – Maintenance	$15,700
Contractual – General	$2,000
Contractual – Response Coverage	$10,000
Office Supplies	$2,000
Publications – Subscriptions	$200
Minor Equipment – Computer	$3,000
Minor Equipment – Protective	$4,000
Minor Equipment – General	$10,000
Fundraising	$10,000
Mortgage	$26,500
Contribution	$7,000
Line of Credit	$9,000
Loan Interest	$40,000
Capital – Apparatus	$116,000
Capital – Buildings	$112,000
TOTAL EXPENDITURES	**$505,730**
NET	($102,230)

Based on 2014 Annual Financial Reports for 2,506 communities in Pennsylvania, the average per capita cost for fire protection commonwealth-wide was $56.84. The average per capita cost for fire protection in Allegheny County, excluding the City of Pittsburgh, was $39.30 per capita. The average per capita cost for fire protection in Jefferson Hills Borough over the previous 5-year period, 2010-2014, was $43.48.

Table 15: Average Borough Fire Expenditures & Expenditures Per Capita, 2010 - 2014

Fire	2010	2011	2012	2013	2014
Expenditures	$438,788	$494,063	$449,730	503,016	$531,905
Avg. = $483,500 / 11,121 Population = $43.48					

Of note when reviewing each company's financial information, Act 84 Funds, Firefighters' Relief Association, is an organization formed primarily for the purpose of affording financial protection to volunteer firefighters against the consequences of misfortune suffered as a result of their participation in the fire service. To qualify for relief association membership, an individual must currently or previously have participated in the fire service for a specified minimum period.

In defining fire service, Act 84 states: "The fire service comprehends the service of organized groups of individuals not only in training for and in the active duty in the protection of the public against fire, but also in the training for and the performance of such other activities as are commonly undertaken by fire companies and their affiliate organizations, including, fire prevention, first aid, rescue and salvage, ambulance service, fire police work, radio communications, assistance at accidents, control of crowds both on the fire grounds and on occasions of public or general assembly, animal rescue, abatement of conditions due to storm, flood, or general peril, abatement or removal of hazards to safety, and participation in public celebrations, parades, demonstrations, and fundraising campaigns. Individuals who join the affiliated fire company in only a social capacity do not qualify for relief association membership."

As Act 84 funds are received annually from the State, the governing body of the municipality has the responsibility of allocating the annual foreign fire insurance tax distribution which it receives to those relief associations which it has recognized. The municipality must certify to the Department of the Auditor General that it has disbursed its entire annual distribution of foreign fire insurance tax to the relief association(s).

The Federal Fire Prevention and Control Act of 1974 authorized the United States Fire Administration's (USFA) National Fire Data Center to gather and analyze information on the magnitude of the Nation's fire problem, as well as its detailed characteristics and trends. The Act authorized the USFA to develop uniform data reporting methods, and to assist state agencies in developing and reporting data. The National Fire Data Center established NFIRS to carry out the intentions of the Act.

PennFIRS, the Pennsylvania Fire Information Reporting System, is the state system that fire departments use to report and manage the flow of incidents into the National Fire Incident Reporting System (NFIRS). The OSFC reports all incidents to the United States Fire Administration's National Fire Data Center.

Both Gill Hall and Jefferson 885 are electronically recording incidents and submitting said data to the PENNFIRS. As a result, each department receives an annual grant allocation of approximately $13,000.00 from the Office of the State Fire Commissioner. Due to a lack of electronic recordkeeping resulting in the inability of the Floreffe Volunteer Fire Company to submit the required response data, they were only one of two departments in Allegheny County as of March 30, 2017, not reporting and ineligible to receive grant funding.

VIII. RECRUITMENT AND RETENTION

Volunteer firefighters are a highly valued community resource. It is estimated that volunteers save communities over 139.8 billion dollars annually. The 2014 estimated value of a volunteer's time was $23.07 per hour. With the average volunteer firefighter spending 8 hours per week, volunteer firefighters contribute $9,597.00 worth of their time annually. It is projected that a fully career fire department would cost the borough approximately $1,000,000.00 in personnel costs, alone.

One of the issues identified, not only in Jefferson Borough, but also nationally, is declining volunteerism. Recruiting sufficient numbers of qualified members has become one of the greatest challenges facing volunteer fire departments today. At one time, most communities had little difficulty attracting members. Often, multiple generations of the same family would belong to departments for long terms. Frequently, many of the firefighters worked locally and on rotating shifts. In many cases local businesses would allow firefighters to leave work to attend fires. This was sustainable because only a small number of fires would occur during work hours.

At the same time, demands on firefighter's time were minimal. Required training was nonexistent in many departments and minimally required in others. Fund raising was important, but the relative cost to run a fire department was low.

Today, this has all changed. Fire departments face tremendous competition for firefighter's time. Most families have two wage earners or have the main breadwinner working two or more jobs. More opportunities exist for children today than ever before. Just transporting children to and from their activities consumes a large amount of a parent's time. Today's workforce is far more transient than previous. As the region's industrial base has eroded, less people work in the communities where they live and smaller numbers work shifts. Additionally, fewer employers allow employees to leave work to fight fires.

These changes have taken place at a time when firefighter time demand has increased dramatically. Firefighter training has rightfully become mandatory in most departments. Minimum required training to become a basic firefighter now runs well over 200 hours. Standards now stipulate minimum levels of hazardous materials, right-to-know and incident management training. Safety was once given nothing more than lip service. Today it has become a cornerstone of fire department training programs. Concurrently, calls for service have increased substantially. Connected alarm systems, carbon monoxide detectors, vehicle accidents, medical assists and service calls are all responsible for creating a demand overload at a time when fire department membership is dwindling.

All this said, there are still a substantial number of people who are willing to become volunteer firefighters if the right incentives are in place. To recruit members, a community needs to identify what they are offering potential members. Recruiting for the fire department should not be all that difficult because the service has a lot to offer: excitement, friendship, respect, the chance to save a life, and a host of other positives. But these things alone are often insufficient to attract new members. There also has to be flexibility that allows people to volunteer in a manner that fits their needs or meets their schedule. There must also be a marketing effort to reach out to potential candidates and illustrate the benefits of membership. Initiatives that have worked for other fire departments include:

- Implement a "Duty-shift Program". This initiative can often pay dividends by attracting individuals to volunteer who prefer to schedule blocks of time to serve rather than be subjected to being on call at all times. This is not unlike performing volunteer work for hospitals, nursing homes and schools. With this program, the fire department establishes minimum participation guidelines and minimum training requirements. Persons wishing to become a "Duty-shift Member" would agree to be at the fire station for a specified number of time blocks per month. In return, the volunteer would receive a small stipend, and be entitled to all the benefits of volunteer membership.

  This program is definitely not for everyone and is a departure from the traditional volunteer fire department model. As such, it would not be rapidly accepted. That said, many departments in the suburban Washington, DC area have found great success by implementing a "Duty-shift Program". They have found that there is a segment of their population that is willing to volunteer, but is too busy with family, jobs and other obligations to participate on an on-call basis.

  Another benefit to the "Duty-shift" program is additional credits for personnel in the Insurance Services Office (ISO) Grading Schedule.

- A successful firefighter recruiting campaign must create a community awareness of the fire department and its needs. To accomplish this, the department should be marketed via as many channels as possible. Publish a fire department web site; send direct mailings; distribute flyers in the schools; create a speakers bureau for community groups; consider lawn signs and billboards; produce an informational video to air on

the local cable access channel. Most, if not all of these initiatives can be accomplished with community talent at little or no cost.

- Engage the community by conducting a "Citizen's Fire Academy". There are several benefits to such a program. Conducted similar to a major league baseball "fantasy camp", a Citizen's Fire Academy provides the opportunity for interested citizens to participate in a multi-faceted program of instruction of the activities of a fire department. Typically there are eight to twelve sessions on topics ranging from fire operations to rescue operations, emergency management, CPR and AED usage, department history and operations, fire prevention, etc. Participants are able to take part in many activities within their physical abilities and safety.

  The programs tend to be self-sustaining from favorable word of mouth and minimal advertising. Most people who participate are amazed at the depth and breadth of fire department activities and the dedication and commitment of the firefighters. They invariably become strong supporters of the fire department. They also share their experiences with friends and relatives which results in a great deal of good will in the community.

  But most importantly, some participants enjoy the experience so much that they want to continue to be a part of the organization. The Mt. Lebanon Fire Department has conducted several Citizens' Fire Academies. New volunteer recruits have come from every class. As many as six new volunteers have come from a single Academy program.

- Develop incentives. Volunteer firefighters are not free, just less expensive than career firefighters. In an effort to compete for people's time, many departments have created a package of incentives and rewards. Some of the components a total benefits package might include are:

  - Tax incentives. Reduced property or earned income taxes or waived occupational privilege taxes are possibilities. Recently, Pennsylvania passed legislation allowing communities to provide tax credits to volunteer firefighters.
  - Free use of local recreation facilities.
  - Education/tuition assistance plans.
  - Individual and team recognition awards.
  - Length of service (LOSAP) remuneration plans.
  - Retirement plans.
  - Life and health insurance policies.
  - Credit union memberships.
  - Wellness programs.
  - Training and fire conference attendance.
  - Clothing and uniform provisions.

IX. RESPONSIBILITY FOR FIRE SERVICES DELIVERY

It is widely accepted that the assurance of the provision of fire services is considered to be a local government responsibility. Local government is broadly interpreted to include municipalities, boroughs, cities, towns, villages, and townships.

In February of 2008, amending the Act of February 1, 1966 (1965 P.L.1656, No. 581) entitled "An act concerning boroughs, and revising, amending and consolidating the law relating to boroughs," providing for specific powers of boroughs relating to emergency services, the General Assembly of the Commonwealth enacted House Bill No. 1133 (Appendix A), adding a clause that "the borough shall be responsible for ensuring that fire and emergency medical services are provided within the borough by the means and to the extent determined by the borough, including the appropriate financial and administrative assistance for these services. The borough shall consult the fire and emergency medical service providers to discuss the emergency service needs of the borough. The borough shall require any emergency services organization receiving borough funds to provide to the borough an annual itemized listing of all expenditures of these funds before the borough may consider budgeting additional funding to the organization." Similar amendments were also made for first and second-class townships, placing the responsibility for providing fire protection on the local governing body.

To attain the delivery of optimum fire services, it is essential that local government recognize and accept that responsibility to fulfill that obligation to provide appropriate guidance and direction to:

- Oversee the formation process of the organization of fire services;
- Ensure that the fire service organization reflects the public interest;
- Protect the service from undesirable external interference;
- Determine basic policies for providing services; and,
- Legally define the duties and responsibilities of service providers.

Identification of this authority and responsibility is also defined in Section 3-1 of NFPA 1201, *Standard for Delivering Fire and Emergency Services to the Public*, as:

"The government agency responsible for establishment and operation of the fire department shall adopt a formal statement (by laws, resolution, or statute) of purpose and policies for the fire department that includes the type and levels of services that are to be provided, the area to be served, and the delegation of authority to the fire chief and other officers to manage and operate the fire department."

X. FIRE SERVICES CONSOLIDATION

The primary goal of any plan of consolidation or merger should revolve around and focus upon public safety considerations with a secondary consideration being economics.

Unfortunately, over the last 30 years, the emergency services in Pennsylvania have been tasked with greater demands to address additional knowledge and skill sets required (i.e. hazardous materials, terrorism, technical rescue) as well as responding to an increasing number of calls. Additionally, the number of volunteers in the Commonwealth has decreased from over 300,000 in the 1970's to less than 50,000 currently. Even with a decline in the number of volunteers, Pennsylvania has had the unfortunate experience of annually being at the top of the list in the number of emergency responders killed in the line of duty.

The bottom line is that the emergency services in many communities are being tasked to provide greater levels of service with very limited resources and decreasing financial assistance. The need exists to develop a cost effective method for emergency services delivery throughout the Commonwealth.

The reality is that each community is left to determine:

"What do I need to protect the community?"
"How much will it cost?"
"What are my funding sources?"
"How do I deliver these services?"

The joining of fire and rescue organizations is a means by which an increasing number of municipalities are responding to a variety of issues. These issues include fiscal constraints, increasing workload, new and increasing demands for service, and the need to become more cost efficient and productive. Cooperative service comes in a variety of forms from a simple intergovernmental agreement like mutual aid to a complex merger. Other forms of cooperation may include automatic aid agreements or functional, partial, and operational consolidations. Each form of cooperation has its advantages depending on the conditions and the departments it may serve. For the purpose of this study, the peer consultant considered the following:

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, Administrator, or Business Manager overseeing both fire departments.

Partial Consolidation – Each department remains legally separate but a group is formed to perform special functions. This group would provide service to both communities but are members of their respective organization. An example would be the sharing and staffing of a single fire station.

Functional Consolidation – Each fire department remains legally separate but performs special functions as if they were one department. An example would be combined training or maintenance programs.

Operational Consolidation – Each fire department remains legally separate but join together both administrative and operations functions, delivering services as if they were one department.

Full Consolidation – Two agencies completely merge into a single legal agency. All service demands in each community are looked at as a single function of the department and political boundaries become invisible.

Ranked as the most important service level issues when considering consolidation include:

1. The amount of time it takes fire units to respond to fires and medical emergencies

2. Provision of advanced and basic life support services

3. Number of firefighters and paramedics who respond to a call

4. How costs will be shared

5. Response by "back-up" units

6. Equipment at fire stations

7. Minimum training levels

Typically, the consolidation or merger of two or more fire departments results in the following:

- One fire department;
- One employer;
- One set of rules, regulations, and operating guidelines;
- One personnel management system;
- One chain of command.

The national experience regarding fire department consolidation indicates major improvement in service and internal efficiencies that have a positive impact on the public. Several key improvements typically include:

- Improved fire ground communications;
- Improved fire ground operations by following the same standard operating guidelines and working together as a team;
- Reduced apparatus maintenance and upkeep;
- Reduced response time of apparatus by dispatching the closest unit; and,
- Improved firefighter safety;

Important steps have already been taken by the companies in the functional areas of automatic aid and training. The consultant believes that there could be additional significant service improvement benefits and long-term cost-reduction and avoidance opportunities that would benefit the residents via a full consolidation.

Governance of the Consolidated Organization

One of the biggest challenges facing a consolidated fire department is choosing a fire chief that can lead the department through the consolidation process. While traditionally elected by the members of the fire department, a chief officer in today's world must be more than a "firefighter's firefighter." He must be a negotiator, a leader, accountant, budgeting expert, public speaker, politician, advocate, change agent, communicator, health and safety consultant, and fire service subject matter expert. He provides the image of the department and is the most visible liaison to the public and other government entities. In that role, he must effectively deal with people in and out of the fire service.

The success and/or failure of the consolidated department will likely depend upon the leadership and negotiating skills of the persons chosen to serve in leadership roles in the consolidated department. For this reason, the consultant recommends that the borough write a job description, set qualifications, and select a fire chief. The selection process may include an application, interviews, tests, assessments etc. The fire chief should be paid an annual stipend and expected to work with and report to the borough and elected officials.

The fire chief should also use the same type of process to select an assistant fire chief. The two deputy chiefs, captains, and lieutenants should be elected by the membership from each station, based on minimum qualifications established by the department. An organizational structure for the consolidate department may look like the following:

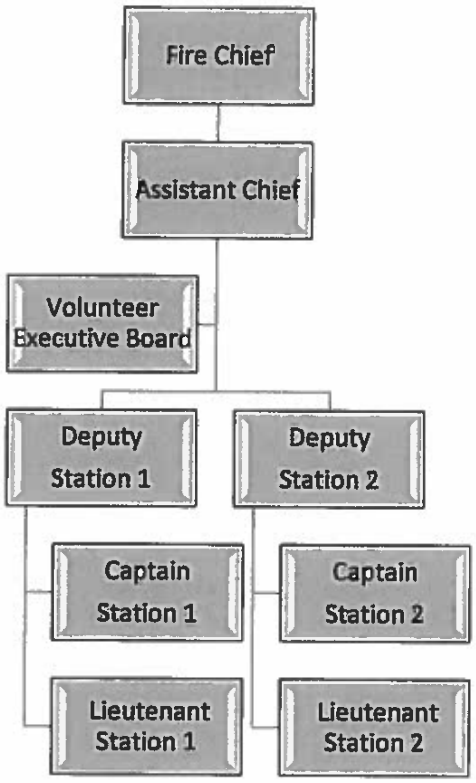

Figure 11: Proposed Organizational Chart

XI. SUMMARY

Based on a national decline in volunteerism, the national experience with consolidation limited funding, aging fleets, and the extreme costs associated with fire services delivery, it is clear that there are significant service level improvements and efficiencies that would benefit the residents of Jefferson Borough through a consolidation of the three fire companies.

Service-level improvements are likely to include improved communication, improved fire ground operations via standardized operating procedures, improved ISO rating, reduced duplication, improved firefighter safety, decreased duplication, improved service delivery to residents, and overall cost efficiencies.

The borough is fortunate to have a good relationship with the fire companies that recognizes the dedication of the departments' members. The challenge is to continue to provide an equivalent or greater level of service in a cost-effective manner. If successful, it is likely that other surrounding communities will seriously have to consider consolidating their fire services and creating a more regional fire services organization.

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Appendix A – INDEPENDENT ACCOUNTING REPORT

Borough of Jefferson Hills
Agreed-Upon Procedures
March 9, 2017

Borough of Jefferson Hills
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Independent Accountant's Report
on Applying Agreed-Upon Procedures

Members of the Board
Borough of Jefferson Hills
Jefferson Hills, Pennsylvania

Dear Members:

We have performed the procedures enumerated below, which were agreed to by the Borough of Jefferson Hills solely to assist the Borough in reviewing the revenues and expenditures for the three volunteer fire departments, and Jefferson Hills Fire & Rescue. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of those parties specified in the report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

Our procedures and findings are as follows:

1. Procedures:

   We will list the receipts and disbursements from the records provided to us by the fire companies for each of the three volunteer fire departments: Floreffe Volunteer Fire Company, 885 Volunteer Fire Company, Gill Hall Volunteer Fire Company and Jefferson Hills Fire & Rescue. These revenues and expenditures will be listed in the format provided to us by the Borough of Jefferson Hills for each of the following years: 2011, 2012, 2013, 2014 and 2015.

   Results:

   The summarization of the revenues and expenditures for each volunteer fire company are shown on the respective exhibits detailed below:

Floreffe Volunteer Fire Company	Exhibit A
885 Volunteer Fire Company	Exhibit B
Gill Hall Volunteer Fire Company	Exhibit C
Jefferson Hills Fire & Rescue	Exhibit D

We were not engaged to, and did not conduct an audit, the objective of which would be the expression of an opinion on the accounting records. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the Borough of Jefferson Hills and is not intended to be and should not be used by anyone other than those specified parties.

Hosack, Specht, Muetzel & Wood LLP

HOSACK, SPECHT, MUETZEL & WOOD LLP
Pittsburgh, Pennsylvania
March 9, 2017

Exhibit A

Decision Unit: Floreffe Volunteer Fire Company

		2011	2012	2013	2014	2015
Revenue						
	Municipal Allocation	$ 20,431	$ 20,240	$ 20,564	$ 20,000	$ 20,000
	Fundraising	10,116	7,573	8,005	7,220	10,061
	Grants	6,564	-	-	-	-
	Donations	1,212	2,161	1,500	3,000	1,700
	Relief (Act 84)	-	-	-	-	-
	Charges for Service	8,864	13,783	7,563	4,300	4,300
	Other (See Attached)	125	161	154	122	91
	Level Totals	$ 47,312	$ 43,918	$ 37,786	$ 34,642	$ 36,152
Expenditures						
	Reg Wages and Salaries					
	Base - P/T Salaries					
	Fringe Benefits					
	Stipends					
	Other					
	Insurance					
	Personnel					
	Apparatus & Bldgs.	$ 4,955	$ 5,240	$ 5,707	$ 5,076	$ 5,700
	Other					
	Professional Services					
	Computer					
	General					
	Training					
	Costs					
	Travel					
	Supplies					
	General					
	Memberships					
	Organizational	30	30	30	30	90
	Utilities					
	Telephone	930	1,026	1,046	1,338	1,332
	Water	835	924	1,118	2,683	943
	Electric	2,230	2,428	1,869	1,944	2,552
	Gas	3,179	2,415	3,210	3,255	3,415
	Fuel	-	-	-	843	581
	Repairs					
	Apparatus					
	Building	197	2,010	3,142	4,626	3,215
	General					

Exhibit A

Decision Unit: Floreffe Volunteer Fire Company

	2011	2012	2013	2014	2015
Printing					
General					
Rental - Lease					
Equipment					
Vehicles					
Contractual Work					
Maintenance	5,774	3,947	2,899	558	769
General	2,953	4,457	2,689	4,620	2,290
Other Contractual					
General					
Office Supplies					
Computer					
General	1,111	107	166	192	221
Publications					
Books					
Subscriptions					
General					
Minor Equipment					
Vehicles					
Radio					
Computer					
Protective					
Furniture					
General					
Maintenance Supplies					
Chemicals					
Support					
Electrical					
General					
Computer					
Miscellaneous					
Other (See Attached)	2,838	2,714	5,784	3,271	4,620
Level Totals	$ 25,032	$ 25,298	$ 27,660	$ 28,436	$ 25,728
Net Income (Loss)	$ 22,280	$ 18,620	$ 10,126	$ 6,206	$ 10,424

Exhibit A

Decision Unit: Floreffe Volunteer Fire Company
"Other" Revenues and Expenditures Support

Revenue

	2011	2012	2013	2014	2015
Other					
Dues	$ 125	$ 161	$ 154	$ 121	$ 90
Interest	-	-	-	-	-
Miscellaneous	-	-	-	1	1
	$ 125	$ 161	$ 154	$ 122	$ 91

Expenditures

	2011	2012	2013	2014	2015
Miscellaneous Other					
Bank Charges	$ 54	$ 30	$ 191	$ 36	$ 36
Contribution Expense	200	25	3,148	-	-
Fundraising	2,384	2,659	2,445	3,235	4,530
Miscellaneous	200	-	-	-	54
	$ 2,838	$ 2,714	$ 5,784	$ 3,271	$ 4,620

Exhibit B

Decision Unit: 885 Volunteer Fire Company

		2011	2012	2013	2014	2015
Revenue						
	Municipal Allocation	$ 23,750	$ 26,400	$ 22,575	$ 20,000	$ 20,000
	Fundraising	20,453	21,527	30,054	15,840	8,500
	Grants	11,772	12,298	13,116	14,119	14,285
	Donations	22,722	27,475	25,910	19,316	40,950
	Relief (Act 84)	-	-	-	-	-
	Charges for Service	-	-	-	-	2,450
	Other (See Attached)	4,178	13,489	5,407	8,072	858
	Level Totals	$ 82,875	$ 101,189	$ 97,062	$ 77,347	$ 87,043
Expenditures						
	Reg Wages and Salaries					
	Base - P/T Salaries					
	Fringe Benefits					
	Stipends					
	Other					
	Insurance					
	Personnel	$ 250	$ 250	$ 500	$ 250	$ -
	Apparatus & Bldgs.	6,606	11,243	7,073	9,299	9,389
	Other					
	Professional Services					
	Computer					
	General					
	Training					
	Costs					
	Travel					
	Supplies					
	General					
	Memberships					
	Organizational	5,453	9,733	4,368	7,286	11,029
	Utilities					
	Telephone	2,452	3,258	3,188	3,491	2,752
	Water	950	1,095	1,222	1,130	1,102
	Electric	3,208	3,644	3,278	3,741	4,067
	Gas	1,718	1,453	2,029	1,891	1,988
	Fuel	7,272	11,245	9,646	8,857	5,555
	Repairs					
	Apparatus	5,060	8,787	10,262	2,359	
	Building	1,469	480	-	-	-
	General	6,885	2,241	1,637	228	4,864

Exhibit B

Decision Unit: 885 Volunteer Fire Company

	2011	2012	2013	2014	2015
Printing					
General					
Rental - Lease					
Equipment					
Vehicles					
Contractual Work					
Maintenance	1,308	7,762	8,407	17,681	10,850
General					
Other Contractual					
General					
Office Supplies					
Computer					
General	919	816	831	225	70
Publications					
Books					
Subscriptions	250	125	215	110	
General					
Minor Equipment					
Vehicles					
Radio					
Computer	-	-	-	1,788	1,188
Protective					
Furniture					
General	7,070	4,848	1,109	1,791	-
Maintenance Supplies					
Chemicals					
Support			256		
Electrical					
General	2,671	821	1,517	947	1,733
Computer					
Miscellaneous					
Other (See Attached)	37,251	40,437	32,590	16,488	10,761
Level Totals	$ 90,792	$ 108,238	$ 88,128	$ 77,562	$ 65,348
Net Income (Loss)	$ (7,917)	$ (7,049)	$ 8,934	$ (215)	$ 21,695

Exhibit B

Decision Unit: 885 Volunteer Fire Company
"Other" Revenues and Expenditures Support

Revenue		**2011**	**2012**	**2013**	**2014**	**2015**
	Other					
	Interest Earned	$ 443	$ 281	$ 42	$ 109	$ 160
	Miscellaneous Income	3,735	13,208	-	88	658
	Sale of Fixed Asset	-	-	5,000	2,220	-
	Member Dues	-	-	365	427	40
	Parking Tax	-	-	-	5,228	-
		$ 4,178	$ 13,489	$ 5,407	$ 8,072	$ 858

Expenditures		**2011**	**2012**	**2013**	**2014**	**2015**
	Other					
	Bank Charges	$ 11	$ 13	$ 26	$ 175	$ 1
	Advertising/Community Events	832	982	1,684	305	60
	Contribution Expense	2,342	1,828	1,859	2,218	2,221
	Depreciation	26,021	31,094	21,179	10,248	5,887
	Fundraising	7,470	5,969	6,080	1,669	706
	Taxes	495	511	1,762	1,873	1,886
	Miscellaneous	80	40	-	-	-
		$ 37,251	$ 40,437	$ 32,590	$ 16,488	$ 10,761

Exhibit C

Decision Unit: Gill Hall Volunteer Fire Company

		2011	2012	2013	2014	2015
Revenue						
	Municipal Allocation	$ 23,515	$ 22,901	$ 20,000	$ 20,081	$ 20,000
	Fundraising	37,010	43,615	38,352	40,642	46,519
	Grants	14,970	10,899	25,243	20,309	162,251
	Donations	700	1,449	605	3,024	6,909
	Relief (Act 84)	-	-	-	-	-
	Charges for Service	4,583	12,040	6,711	7,127	5,870
	Other (See Attached)	11,620	210	881	320	12,594
	Level Totals	$ 92,398	$ 91,114	$ 91,792	$ 91,503	$ 254,143
Expenditures						
	Reg Wages and Salaries					
	Base - P/T Salaries					
	Fringe Benefits					
	Stipends					
	Other					
	Insurance					
	Personnel					
	Apparatus & Bldgs	$ 4,573	$ 6,729	$ 5,394	$ 7,046	$ 6,782
	Other					
	Professional Services					
	Computer					
	General					
	Training					
	Costs					
	Travel					
	Supplies					
	General	-	-	-	-	450
	Memberships					
	Organizational	160	195	180	275	205
	Utilities					
	Telephone	1,847	1,769	3,010	1,559	1,923
	Water	504	528	718	722	1,347
	Electric	4,575	5,478	3,454	4,758	5,696
	Gas	7,954	5,376	6,763	8,191	7,218
	Fuel	2,039	2,004	2,495	1,757	1,253
	Repairs					
	Apparatus	5,704	5,631	4,351	4,539	4,972
	Building	-	-	-	-	9,573
	General	2,095	-	12,500	591	5,762
	Printing					
	General					

Exhibit C

Decision Unit: Gill Hall Volunteer Fire Company

	2011	2012	2013	2014	2015
Rental - Lease					
Equipment					
Vehicles					
Contractual Work					
Maintenance	6,721	6,745	5,138	5,017	8,625
General	2,611	2,581	2,633	3,562	3,026
Other Contractual					
General					
Office Supplies					
Computer					
General	1,077	1,289	1,271	933	1,442
Publications					
Books					
Subscriptions					
General					
Minor Equipment					
Vehicles					
Radio					
Computer					
Protective	-	11,140	562	-	127,566
Furniture					
General	9,978	411	150	205	417
Maintenance Supplies					
Chemicals					
Support					
Electrical					
General	1,234	946	447	561	1,006
Other					
Miscellaneous					
Other (See Attached)	35,969	36,138	46,299	52,177	44,851
Level Totals	$ 87,041	$ 86,960	$ 95,365	$ 91,893	$ 232,114
Net Income (Loss)	$ 5,357	$ 4,154	$ (3,573)	$ (390)	$ 22,029

Exhibit C

Decision Unit: Gill Hall Volunteer Fire Company
"Other" Revenues and Expenditures Support

Revenue		**2011**	**2012**	**2013**	**2014**	**2015**
	Other					
	Insurance Claim	$ 10,615	$ -	$ 172	$ -	$ 11,961
	Interest	29	32	29	20	10
	Dues	105	125	285	245	497
	Miscellaneous	871	53	395	55	126
		$ 11,620	$ 210	$ 881	$ 320	$ 12,594

Expenditures		**2011**	**2012**	**2013**	**2014**	**2015**
	Other					
	Bank Charges	$ 175	$ 232	$ 184	$ 35	$ 180
	Contribution Expense	-	35	-	-	-
	Fundraising	3,050	11,143	3,868	4,811	7,202
	Line of Credit	7,239	9,090	9,905	8,196	9,101
	Mortgage	25,505	15,535	15,535	28,344	26,531
	Transfer to Relief Assoc.	-	-	12,500	7,500	-
	Miscellaneous	-	103	4,307	3,291	1,837
		$ 35,969	$ 36,138	$ 46,299	$ 52,177	$ 44,851

Exhibit D

Decision Unit: Jefferson Hills Fire & Rescue

		2011	2012	2013	2014	2015
Revenue						
	Municipal Allocation	$ 269,039	$ 293,954	$ 288,415	$ 341,023	$ 249,896
	Fundraising					
	Grants					
	Donations	1,647	-	-	-	-
	Relief (Act 84)					
	Charges for Service	26,515	22,000	29,280	24,370	8,800
	Other (See Attached)	451	586	64	9	7
	Level Totals	$ 297,652	$ 316,540	$ 317,759	$ 365,402	$ 258,703
Expenditures						
	Reg Wages and Salaries					
	Base - P/T Salaries	$ 30,140	$ 29,953	$ 28,511	$ 30,084	$ 30,370
	Fringe Benefits					
	Stipends					
	Other (Taxes)	3,343	3,206	3,339	3,524	3,589
	Other (Payroll Processing)	1,734	1,935	2,719	3,806	2,745
	Insurance					
	Personnel	4,056	4,168	4,752	4,978	5,058
	Apparatus & Bldgs					
	Other					
	Professional Services					
	Computer					
	General	216	244	146	107	15
	Training					
	Costs					
	Travel					
	Supplies					
	General					
	Memberships					
	Organizational					
	Utilities					
	Telephone					
	Water	1,348	2,092	1,028	1,617	578
	Electric	10,426	8,309	8,922	11,997	11,315
	Gas					
	Fuel	-	3,686	228		
	Repairs					
	Apparatus	8,302	12,733	11,365	20,996	6,322
	Building	1,415	6,263	8,845	-	-
	General					

Exhibit D

Decision Unit: Jefferson Hills Fire & Rescue

	2011	2012	2013	2014	2015
Printing					
General					
Rental - Lease					
Equipment	-	-	64	-	68
Vehicles					
Contractual Work					
Maintenance	6,922	9,378	6,168	3,695	4,950
General	400	-	200	-	-
Other Contractual					
General					
Office Supplies					
Computer					
General	264	170	340	60	-
Publications					
Books					
Subscriptions					
General					
Minor Equipment					
Vehicles					
Radio					
Computer					
Protective					
Furniture					
General					
Maintenance Supplies					
Chemicals					
Support					
Electrical					
General					
Other					
Miscellaneous					
Other (See Attached)	328,282	295,107	276,841	260,149	245,888
Level Totals	$ 396,848	$ 377,244	$ 353,468	$ 341,013	$ 310,898
Net Income (Loss)	$ (99,196)	$ (60,704)	$ (35,709)	$ 24,389	$ (52,195)

Exhibit D

Decision Unit: Jefferson Hills Fire & Rescue
"Other" Revenues and Expenditures Support

Revenue	**2011**	**2012**	**2013**	**2014**	**2015**
Other					
Interest	$ 348	$ 97	$ 64	$ 9	$ 7
Miscellaneous	103	489	-	-	-
	$ 451	$ 586	$ 64	$ 9	$ 7

Expenditures	**2011**	**2012**	**2013**	**2014**	**2015**
Other					
Bank Charges	$ 8	$ 58	$ 320	$ 191	$ 102
Depreciation	193,605	173,878	163,194	154,359	146,572
Loan Interest	74,530	61,171	53,327	45,531	38,539
Miscellaneous	139	-	-	68	675
Floreffe VFC - Operating Contribution	20,000	20,000	20,000	20,000	20,000
Gill Hall VFC - Operating Contribution	20,000	20,000	20,000	20,000	20,000
Jefferson 885 VFC - Operating Contribution	20,000	20,000	20,000	20,000	20,000
	$ 328,282	$ 295,107	$ 276,841	$ 260,149	$ 245,888

Appendix B - MUNICIPAL FIRE MANAGEMENT

Southwestern Pennsylvania Commission's (SPC) Standards for Effective Local Government

INTRODUCTION

Fire protection is among the most basic of services provided by a local government. It is expected to be available to citizens seven days a week; 24-hours a day. There is no one model used for delivering fire protection. Large local governments can be expected to have a fully paid fire department, operating under the supervision of a municipal manager and/or elected officials. Small local governments most frequently, but not always, operate with all-volunteer fire companies. In between are models which have both paid and volunteer firefighters. Some have a paid driver and volunteers. In some cases two or more local governments may enter into a formal agreement to cooperate in providing fire service. Many times cooperation among municipal fire companies is informal. When additional help is needed, neighboring companies respond. Regardless of the method of delivery, every effort should be made to meet the basic standards for fire suppression and fire prevention which follow.

The fire standards are designed to accomplish the objectives of accountability, and an acceptable level of adequacy in the delivery of fire service. Several of the standards draw upon those developed by the National Fire Protection Association. Others reflect effective administrative practices.

Meeting fire management standards when volunteer companies are involved can present significant challenges to municipal officials. Often they function independent of regular municipal supervision and municipal processes. It is critical, then, that means, mutually acceptable to all parties, be established to facilitate communication, coordination, and cooperation among the parties. This need is especially important in establishing accountability when public money is involved in providing support to a volunteer company.

MUNICIPAL FIRE MANAGEMENT

FACTOR: BASIC FIRE STANDARDS

Standard No. 1

The municipality has received at least a mid-point rating of 5 (a rating of 6 for more rural municipalities) from the Insurance Services Office (ISO).

Commentary

The ISO regularly rates fire service delivery for each local government for the sole purpose of fire insurance rate-making. The rating is on a scale of 1 - 10. A Class 1 community is considered most capable of coping with a fire. A Class 10 municipality has no fire department or water supply meeting the Grading Schedule requirements of the ISO. Insurance rates on identical risks would normally be lower in a Class 1 local government and highest in Class 10. Since insurance rates for residents and businesses are affected by the ISO rating, local officials need to be knowledgeable about this rating and the factors which affect it. Water supply counts for 40% of the rating; equipment, 26%; personnel, 15%; alarm and dispatch, 10%; and training, 9%.

Rating Scale

Standard is:

1. ___ Met, and is effective. (_X_verified __not verified)
2. _X_ Met, but is not effective. (comment below)
3. ___ Not met. (Check "Reason" and provide comment below.)

Reason:

___ Not relevant ___ No interest ___ Lack resources
___ Lack administrative capacity/initiatives ___ Other

EVALUATOR'S COMMENTS:

The Borough has a mid-point rating of 5, but is close to being a 6.

MUNICIPAL FIRE MANAGEMENT

FACTOR: BASIC FIRE STANDARDS (Continued)

Standard No. 2

All fire personnel, whether paid or volunteer, have received basic, certified, training in firefighting and have regular and mandatory in-service training and drills. Training goals are based on the standards set by the National Fire Protection Association (NFPA).

Commentary

The standards developed by the NFPA impact upon a local government, whether fire service is provided by volunteer or paid personnel. NFPA publishes standards covering a wide range of topics which are seen as essential safeguards against loss of life and property from fire, including training. NFPA Standard 1500, the Health and Safety Standard, places 100-plus requirements on fire departments, including volunteer companies. The International Association of Fire Fighters has established as a national goal total compliance with 1500.

In other words, NFPA requirements have become the standard for the industry. Although not mandatory upon local governments, the fact that they have been recognized nationally allows it to be argued that any equipment or operating procedure that does not comply is unsafe and substandard. Liability can, then, attach to a local government not meeting the standard. Compliance with these standards carries a financial impact, and raises the level of management and professionalism that are needed as fire service evolves from its traditional fire suppression role to one of involvement in a full range of emergency and life safety services, hastened by new and emerging federal and State mandates arising from the 9-11 attack and emerging homeland security efforts.

Rating Scale

Standard is:

1. ___ Met, and is effective. (X verified __not verified)
2. ___ Met, but is not effective. (comment below)
3. _X_ Not met. (Check "Reason" and provide comment below.)

   Reason:

   ___ Not relevant ___ No interest ___ Lack resources

   ___ Lack administrative capacity/initiatives ___ Other

EVALUATOR'S COMMENTS:

Floreffe does not provide regular, mandatory in-service training and drills.

MUNICIPAL FIRE MANAGEMENT

FACTOR: BASIC FIRE STANDARDS (Continued)

Standard No. 3

Fire equipment is adequate, and suited to the needs/experience of the municipality. Basic fire apparatus, and personal equipment and clothing of firefighters, meet NFPA standards.

Commentary

Fire equipment needs will vary from local government to local government. Community characteristics, such as population size, land area, density, terrain, and type of structures, will have an effect of what is needed. Municipal officials should seek a briefing from fire officials on equipment needs, and ISO and NFPA standards. See, also, the Commentary for Standard 2, above.

Rating Scale

Standard is:

1. ___ Met, and is effective. (_X_verified __not verified)
2. _X_ Met, but is not effective. (comment below)
3. ___ Not met. (Check "Reason" and provide comment below.)

Reason:

___ Not relevant ___ No interest ___ Lack resources
___ Lack administrative capacity/initiatives ___ Other

EVALUATOR'S COMMENTS:

There is not a replacement plan for fire apparatus which has either exceeded, or is approaching, NFPA or any other recommended replacement schedule.

MUNICIPAL FIRE MANAGEMENT

FACTOR: BASIC FIRE STANDARDS (Continued)

Standard No. 4

Water, and water pressure, and pumper capacity, always are sufficient to meet firefighting needs.

Commentary

Again, ISO and NFPA set standards for water supply. Municipal officials should inquire about these standards and be satisfied that the municipal water supply is adequate. Rural areas should establish dry hydrant sites whenever practical, and this should be done on a regional, cooperative basis.

Rating Scale

Standard is:

1. _X_ Met, and is effective. (_X_verified __not verified)
2. ___ Met, but is not effective. (comment below)
3. ___ Not met. (Check "Reason" and provide comment below.)

Reason:

___ Not relevant ___ No interest ___ Lack resources
___ Lack administrative capacity/initiatives ___ Other

EVALUATOR'S COMMENTS:

Water supply is effective.

MUNICIPAL FIRE MANAGEMENT

FACTOR: BASIC FIRE STANDARDS (Continued)

Standard No. 5

The procedures and equipment used to dispatch fire equipment are adequate to support a rapid response to a fire call or other emergencies for which fire personnel are responsible.

Commentary

A rapid response to a fire is key to minimizing the loss of life and property. Procedures for reporting a fire should be simple and well understood by the public. At the other end, those who dispatch fire equipment should be well trained, and their dispatching equipment, to the extent possible, should be state-of-the-art. See, also, the next part of this section in Fire Suppression, and the standards for call-taking and dispatch.

Rating Scale

Standard is:

1. _X_ Met, and is effective. (_X_ verified __ not verified)
2. ___ Met, but is not effective. (comment below)
3. ___ Not met. (Check "Reason" and provide comment below.)

Reason:

___ Not relevant ___ No interest ___ Lack resources
___ Lack administrative capacity/initiatives ___ Other

EVALUATOR'S COMMENTS:

Provided by Allegheny County 911.

MUNICIPAL FIRE MANAGEMENT

FACTOR: FIRE SUPPRESSION

Standard No. 1

Adequate firefighting service is available seven days a week, 24-hours a day.

Commentary

Meeting this standard generally is not a problem for a local government with a full-time, paid, department. For volunteer companies the standard may be more difficult to meet at times, particularly as these companies experience difficulty in recruiting volunteers. Particular attention should be paid to the ability of volunteer companies to cover, adequately, morning and afternoon hours.

The standard is met if the municipality and its volunteer companies have entered into formal mutual aid agreements with neighboring communities which can guarantee needed coverage.

Rating Scale

Standard is:

1. ___ Met, and is effective. (__verified __not verified)
2. ___ Met, but is not effective. (comment below)
3. ___ Not met. (Check "Reason" and provide comment below.)

Reason:

___ Not relevant ___ No interest ___ Lack resources

___ Lack administrative capacity/initiatives ___ Other

EVALUATOR'S COMMENTS:

Unable to evaluate the assembly of ten firefighters in ten minutes or less 80% of the time based on incomplete records and unreliable data.

MUNICIPAL FIRE MANAGEMENT

FACTOR: FIRE SUPPRESSION (Continued)

Standard No. 2

Fire manpower is sufficient to provide a minimum of three persons on each apparatus responding to a fire.

Commentary

This manpower standard can be open to question, and may vary depending on a number of factors such as whether volunteers report directly to the fire scene. However, in weighing the adequacy of fire manpower, the following should be kept in mind. The NFPA standard calls for 4 persons on each apparatus. Both safety and the manpower requirements at the fire scene support this standard. For example, there are distinct and specialized duties which should be performed simultaneously to minimize loss of life and property -- locate fire, plan attack, develop lines, raise ladders, rescue, ventilate, etc. For water flow of 150 GPH it takes two individuals to maneuver the hose line, and there needs to be an operator at the pumper. Two to 4 individuals are needed to raise ladders for rescue, depending on the length of the ladder.

Rating Scale

Standard is:

1. ___ Met, and is effective. (__verified __not verified)
2. ___ Met, but is not effective. (comment below)
3. ___ Not met. (Check "Reason" and provide comment below.)

Reason:

___ Not relevant ___ No interest ___ Lack resources
___ Lack administrative capacity/initiatives ___ Other

EVALUATOR'S COMMENTS:

Unable to evaluate due to incomplete records and unreliable data.

MUNICIPAL FIRE MANAGEMENT

FACTOR: FIRE SUPPRESSION (Continued)

Standard No. 3

The response time to a first alarm is within approximately 8 minutes.

Commentary

The bottom line is whether or not firefighters and equipment arrive in time to minimize loss of life and property. A key factor is the time from ignition to flashover (simultaneous ignition of all combustibles), at which time the spread of the fire will increase dramatically. Studies show that the time to flashover in a structural fire varies from 5 to 9 minutes.

Rating Scale

Standard is:

1. _X_ Met, and is effective. (__verified _X_not verified)
2. ___ Met, but is not effective. (comment below)
3. ___ Not met. (Check "Reason" and provide comment below.)

Reason:

___ Not relevant ___ No interest ___ Lack resources
___ Lack administrative capacity/initiatives ___ Other

EVALUATOR'S COMMENTS:

It can be assumed, based upon the size of the area and the presence of a duty crew that the response time of a first arriving apparatus is approximately 8 minutes.

MUNICIPAL FIRE MANAGEMENT

FACTOR: FIRE SUPPRESSION (Continued)

Standard No. 4

If fire service is provided by volunteers, and more than one volunteer company services the municipality, these companies not only work cooperatively, but also have formal arrangements for assisting one another.

Commentary

When more than one company responds to a fire there should be well understood procedures governing, especially, when, and in what order, additional companies will be called, and command responsibilities (who is in charge). Otherwise, the fire scene can become confused, and firefighting inefficient. This standard is critical for liability protection for both the municipality and the fire companies.

Rating Scale

Standard is:

1. _X_ Met, and is effective. (_X_ verified __ not verified)
2. ___ Met, but is not effective. (comment below)
3. __ _ Not met. (Check "Reason" and provide comment below.)

   Reason:

   __ Not relevant ___ No interest ___ Lack resources

   ___ Lack administrative capacity/initiatives ___ Other

EVALUATOR'S COMMENTS:

All companies provide automatic aid to one another.