

ORGANIZATION ASSESSMENT AND STRATEGY RECOMMENDATIONS

UNION FIRE COMPANY NO. 1 OF HAMBURG BERKS COUNTY, PA

Prepared by ROBB Consulting, LLC NOVEMBER 2023

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EXECUTIVE SUMMARY

PURPOSE

The purpose of the project was to work with the officers and members of Union Fire Company No. 1 of Hamburg (fire department) and Borough of Hamburg, Township of Tilden, and Township of Windsor officials (municipal officials) to assess the existing volunteer-staffed fire-rescue system to identify and recommend governance and administrative objectives for the future success of the volunteer fire company and the fire-rescue system. At the time of the assessment, there was no current strategic plan in place for the fire service on either the fire department or municipal level. The leadership of the volunteer fire company and municipal governments agreed to an outside assessment to provide recommendations, guidance for changes, and new initiatives that would be helpful in charting a path forward.

ROBB Consulting, LLC (ROBB) was retained to accomplish this task. The focus of this organization assessment and strategy recommendations report is to develop objectives that would be adopted by the fire department and municipal officials to promote and advance a collaborative working relationship to create a strong, resilient volunteer-staffed fire-rescue system for the foreseeable future.

ROBB was tasked to assess the following core areas:

- Organizational Governance
- Budget and Finance
- Capital Assets

HOW DID WE DETERMINE YOUR NEEDS?

Through a series of first-person and small group interviews, and a review of existing organizational and operational data, ROBB identified objectives and recommended outcomes that will advance both the fire department and municipal governments, which are legislatively required to provide fire and emergency medical services.

OUR GOALS FOR YOU TO SUCCEED

As a result of the assessment, the resulting four objectives listed in this report have been developed which ROBB envisions will strengthen the fire department and will position the municipal governments to better support the fire-rescue system over the next three years.

1. Increased communication, on-going education on the mission of fire and emergency services, and better community engagement will build better relationships, both internally and externally. By establishing a fire-rescue advisory board, the fire department, municipal officials, and the community can

build better relationships and advise on the current and future needs of the firerescue system.

- 2. Municipal governments in Pennsylvania are the local authority having jurisdiction (AHJ) for guaranteeing the delivery of fire and emergency medical services on a daily basis. Consistent and reliable funding from municipal government is needed to plan strategically, both in the short and long-term.
- 3. Capital assets such as fire apparatus are expensive. A basic fire engine (pumper) is quickly approaching \$1 million today. The purchasing of apparatus needs to be planned and budgeted. Adopting an apparatus replacement plan can make this happen.
- 4. Today, volunteers want to train and respond to calls for service, not perform building construction services. Develop a punch list of all remaining station upgrades, determine associated costs, and secure services of an outside contractor to complete work.

OUTCOMES

This assessment and its strategy recommendations outline the best course of action for the future success of the Union Fire Company No. 1 of Hamburg and provides a foundation for a new discussion. By implementing the goals identified in this assessment, a stronger, more resilient all-volunteer staffed fire-rescue system can be maintained and possibly be expanded over the next three years. This outcome relies on increased communication, and developing and maintaining better relationships, which ultimately leads to a better level of trust. By working together, the fire department and municipal officials will be able to quickly adapt to the outside forces and challenges that impact daily lives and communities across the country every day.

BACKGROUND

Community Profile

Settled originally by Swedes, Germans, French, English, and Welsh, Berks County was named for Berkshire, England and was settled due to its fertile plains and valleys, many formed by the Schuylkill River and its tributaries. The county was formed from parts of Philadelphia, Chester, and Lancaster counties. Hamburg Borough was officially organized in 1838 and formed from parts of Windsor Township. Hamburg became the second town with postal designation in Berks County, preceded only by Reading. Tilden Township was erected from parts of Upper Bern Township in 1887, named for wellknown statesman Samuel J. Tilden. Windsor Township, an original township, was formed sometime before 1752 and named for Windsor, England.

The first due service area of Union Fire Company No. 1 of Hamburg includes the Borough of Hamburg and large portions of Tilden Township and Windsor Township. The area is home to more than 10,000 permanent residents (U. S. Census data) and has been slowly increased over the last twenty years. The fire department's service area encompasses nearly 43 square miles and is home to many attractions including:

- Historic downtown Hamburg
- The Reading Railroad Museum
- Cabela's Sporting Goods & Outdoor Stores
- Schuylkill River Trail

Because the Upper Berks County region is located approximately thirty minutes north of the city of Reading and the metro Philadelphia region, and only twenty minutes west of the Lehigh Valley, major transportation routes crisscross the service area. United States Interstate 78 and Pennsylvania State Route 61, handle tens of thousands of personal and commercial vehicles daily. The mainline of the Reading and Northern Railroad sees several freight trains daily and weekend tourist and special passenger trains. Additional large amenities in the area (ex. Appalachian Trail, Hawk Mountain, casinos, museums, parks, sports teams, performing arts theaters, and universities) contribute to the public safety needs of the fire department and the communities it serves.

Chart: Municipal Data

Municipality	2020 Population	Square Miles	Total Parcels*
Hamburg Borough	4,317	1.96	1,802
Tilden Township	3,586	19.00	1,574
Windsor Township	2,490	22.60	1,233
Total:	10,393	43.56	4,609

Source - U.S. Census Bureau and municipal governments *Includes taxable and exempt parcels

Fire Service Delivery

In 2008, the General Assembly of the Commonwealth of Pennsylvania enacted House Bills No. 1131, 1133, 1134, and Senate Bill 987, amending the borough, first class township, second class township, and third class city codes. By doing so, a clause was added to those respective municipal government codes stating municipalities "shall be responsible for ensuring that fire and emergency medical services are provided within the municipality by the means and to the extent determined by the municipality, including the appropriate financial and administrative assistance for these services. The municipalities shall consult the fire and emergency medical service providers to discuss the emergency service needs of the municipality and shall require any emergency services organization receiving funds to provide an annual itemized listing of all expenditures of these funds before considering budgeting additional funding."

To attain the delivery of optimum fire services, it is essential that municipal governments recognize and accept that responsibility to fulfill the 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.
- Legally define the duties and responsibilities of service providers.

Identification of this authority and responsibility is also defined in Section 3-1 of the National Fire Protection Association (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."

In 2001, the NFPA proposed a deployment standard for volunteer fire departments that was successfully adopted as NFPA 1720, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments. Response time and staffing benchmarks throughout the standard are based on a community's population density. A community may have more than one response benchmark based on varying population densities and/or demographics.

This national deployment standard does not, however, recognize local issues, conditions, service demands, or community needs. Every community should adopt realistic response expectations based on local needs and conditions. NFPA 1720

serves as a goal and should only be utilized as a foundation for a community to establish its own service level goals.

SUPPORTING DOCUMENTS

Chart: Annual Emergency Calls

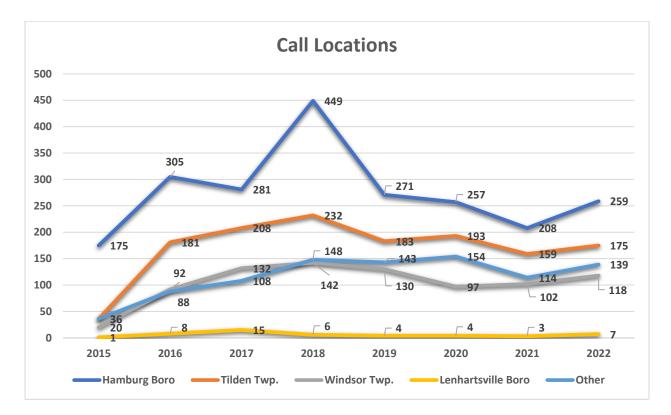
ſ	2015	2016	2017	2018	2019	2020	2021	2022
	268	674	744	977	731	705	586	698

Source: Fire Department

Chart: Annual Emergency Calls by Location

	<u>Hamburg</u> Borough	<u>Tilden</u> Township	<u>Windsor</u> Township	<u>Lenhartsville</u> <u>Borough</u>	Other	<u>Total</u>
2015	175	36	20	1	36	268
2016	305	181	92	8	88	674
2017	281	208	132	15	108	744
2018	449	232	142	6	148	977
2019	271	183	130	4	143	731
2020	257	193	97	4	154	705
2021	208	159	102	3	114	586
2022	259	175	118	7	139	698

Chart: Annual Emergency Call by Location

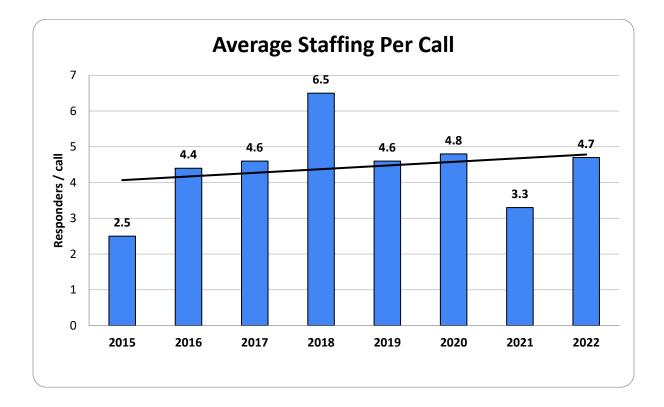


Source: Fire Department

Chart: Average Staffing Per Call Annually

2015	2016	2017	2018	2019	2020	2021	2022
2.5	4.4	4.6	6.5	4.6	4.8	3.3	4.7

Chart: Average Staffing Per Call Annually



Source: Fire Department

STRATEGY RECOMMENDATIONS – ORGANIZATIONAL GOVERNANCE

Objective 1: Establish Community Fire-Rescue Advisory Board

RECOMMENDED OUTCOMES

- Increase communication and build better relationships among the fire department, municipal governments, and the community
- Assist with advancing objectives of the assessment
- Membership shall include a diverse mix of fire department, municipal government, community and business members
- Shall meet quarterly and report to both the fire department and municipal governments

The fire department, working with the municipalities, should *establish a Community Fire-Rescue Advisory Board*. What is an advisory board or advisory committee? It is a type of board or committee consisting of representatives of the public who meet on a regular basis with representatives of the fire-rescue service and municipal government. Its purpose is to build and foster partnerships among those who provide the service and those who rely every day on the services of the fire department for a safe community.

There are two primary goals for the community fire-rescue advisory board. The first goal is to *increase communication and to build better relationships*. During the interview process, it was evident that engaging the community to educate them on the challenges of funding and maintaining a volunteer-staffed fire-rescue system was a top priority for the officers and members of the fire department. As in most places, there is an assumption that people understand how public safety is delivered and how municipal government works. Unfortunately, this is not necessarily true. Most interviewees reported that the community has no idea what they do on a day-to-day basis and how much work it takes to run a successful volunteer-staffed fire department. Most importantly, many community members have no idea the people answering their call for help are volunteers.

The second goal of the advisory board is to provide broad-based input into the planning and decision-making process to *assist with advancing the objectives of this assessment*. This advisory board can evaluate the broad range of stakeholder interests that are affected by a specific objective presented in the report and allows for the indepth and focused involvement and input from all stakeholders. As communities change and the fire, emergency medical service, and emergency management needs evolve,

funding needs typically change as well. Costs will continue to rise. This group can also be the information and educational resource for the development of consensus when and where it is needed for these complex issues that affect the broader community.

The membership of the advisory board should consist of a minimum of seven (7) members with a broad range of experience. This small group size allows for greater accountability and flexibility, both in terms of ideas and scheduling. They can build greater trust among the members and much more ownership. Smaller groups also tend to outperform larger teams.

As with any working group, having the correct mix of participants is very important along with the correct number. A good mix of fire department members is important. You not only need a perspective for today, but you also need a historical perspective. A life member with decades of service is invaluable. Remembering where you came from helps you get to where you need to be today and in the future. Let us not forget the community is who the fire department serves. Making sure the residents and businesses are represented is very important.

Once appointed, the advisory board members shall pick a chairperson, vice chairperson, and secretary from within its membership ranks. The Board shall be considered a sub-board to the fire department and municipalities and shall exist to support the administrative, business, and operational needs of the fire department and report back to the fire department and municipal governments on a quarterly schedule.

SUPPORTING DOCUMENTS

Members	Number
Fire Company (Active Member)	1
Fire Company (Life Member)	1
Fire Company (Executive Officer)	1
Hamburg Borough Representative	1
Tilden Township Representative	1
Windsor Township Representative	1
Community Member-at-Large	1
Total:	7
Non-voting: Fire Company Fire Chief	1
Non-voting: EMS	1
Non-voting: EMA Representative(s)	As needed

Sample Community Fire-Rescue Advisory Board Membership

Task Assignment: The objective should be put into action by the fire company president, in conjunction with the current municipal officials that serve as liaisons to the fire department. The Community Fire-Rescue Advisory Board will report back to the fire company and municipalities on a regular schedule.

Timeline: Year 1

STRATEGY RECOMMENDATIONS – BUDGET AND FINANCE

Objective 2: Establish Consistent and Reliable Funding

RECOMMENDED OUTCOMES

- Inconsistent funding levels decrease the fire department's ability to plan strategically
- Increase funding in the first year or annually for three consecutive years based on cost sharing formula

One interviewee asked, "Why do we need to worry about long term funding?" Simply put, for any fire-rescue organization to be successful, consistent and reliable funding from municipal government is needed to plan strategically, both over the short- and long-term. Even if an organization has been around for a while and is going strong, it still makes sense to plan to be financially sustainable.

To establish the consistent and reliable funding plan needed for a successful volunteer staffed fire-rescue system, three questions need to be asked:

- What is the volunteer fire department going to fund?
- What is the volunteer firefighter's relief association going to fund?
- What is the municipal government going to fund?

In Pennsylvania, the current funding system that provides operating revenue to volunteer fire departments, ambulances, and rescue squads is typically received from three sources. The first source is the volunteer organization itself. Through public dinners, raffles, bingo, mail solicitation, and other fundraisers, volunteer fire companies, ambulances, and rescue squads have traditionally raised funds on their own.

Two challenges typically go along with this model. The first challenge is that few people recognize that fundraising requires considerable staff hours. Those fundraising staff hours are in addition to the hundreds of hours each year the men and women of the organization already volunteer to the fire department and community by attending training and providing fire suppression, rescue, and many other public safety services.

The second challenge is the lack of everyone in the community helping to pay for a service they may need at some point in time. This is exemplified with the fire department's annual fund drive. Over the last ten years, only twenty percent (20%) or less of residential, commercial, and

apartment uses contributed to the fund drive. In other words, only one (1) out of five (5) users of the fire suppression, rescue, and other public safety services delivered by the fire department provide financial support.

The second source of operating revenue of the current funding system is contributions to the volunteer fire department from the Pennsylvania Foreign Fire Insurance Tax program. Commonly referred to as Act 84 funds, the annual allotment from the state passes through the municipal government's general fund to the volunteer fire department's affiliated volunteer firefighter's relief association (VFRA). The Commonwealth of Pennsylvania levies this tax on out-of-state (also known as "foreign") insurers and then passes the revenue to local municipalities for several uses, including fire-rescue funding. The local municipality is required by law to pass the funds to the volunteer fire department's affiliated volunteer firefighter's relief association that serves its jurisdiction. The state statute also provides for the management and audit of these funds and limits how a fire department may spend those funds. This funding source fluctuates year to year based on taxes collected.

The third source is local government. In some communities across Pennsylvania, volunteer fire departments, ambulances, and rescue squads receive minimal financial support from the municipal government. In other communities, significant financial support is provided. In many cases, this is a direct result of the financial ability of the community to generate funds. If a municipal government does contribute, they have several methods at their disposal to generate revenue. This includes general fund line-item tax revenue, dedicated fire tax revenue, dedicated EMS tax revenue, local services tax revenue, and more recently, generating revenue by creating rate-setting entities. During the interview process, the municipal officials recognized the need to financially support the efforts of the fire department.

The other consideration for the municipal officials is cost sharing. The fire department has a first due service area in three municipalities. Hamburg Borough, Tilden Township, and Windsor Township municipal officials will need to agree upon and adopt an equitable funding formula to contribute to the operation of the fire department. This will include direct funding for day-to-day operations and funding for capital projects. The funding agreement needs to be determined by municipal officials collectively working together. Based on feedback during the interview process, it is recommended that the initial funding formula use the program cost sharing formula based on assessed value, population, and call volume or some type of per person option.

With the answer to these three questions in hand and a cost sharing plan agreed upon, a budget development and approval process can be implemented. With a consistent and reliable funding plan in place, the fire department's finances will become more secure, which will directly impact the following:

- The officers and members of the fire department can focus on the real work.
- The organization becomes more efficient over time.
- The organization becomes more resilient when challenges arise.
- The organization learns to better follow administrative policies and guidelines.

The end result will be a sustainable funding program at the proper financial levels to cover the day-to-day operations, short-term capital needs, and long-term capital needs of the fire department.

SUPPORTING DOCUMENTS

Chart: Estimated Income with Immediate Funding Increase

Income	Year									
	2024	2025	2026	2027	2028					
Hamburg	\$80,000.00	\$80,000.00	\$80,000.00	\$80,000.00	\$80,000.00					
Tilden	\$58,000.00	\$58,000.00	\$58,000.00	\$58,000.00	\$58,000.00					
Windsor	\$56,000.00	\$56,000.00	\$56,000.00	\$56,000.00	\$56,000.00					
Member Dues	\$250.00	\$250.00	\$250.00	\$250.00	\$250.00					
Fund Drive	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00					
Fund Raising	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00					
Donations (Restricted/Unrestri	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00					
Field House	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00					
PA Fire Recovery	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00					
State FC Grant	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00					
HazMat Trailer	\$250.00	\$250.00	\$250.00	\$250.00	\$250.00					
Total Operating Income	\$294,500.00	\$294,500.00	\$294,500.00	\$294,500.00	\$294,500.00					

Chart: Estimated Expenses

Function	Expenses adjusted t	o account for a 3.70%	annual increase based	d on the current inflation	on rate (10/22/23)
Expenses	2024	2025	2026	2027	2028
Building Mortgatge	\$90,807.84	\$90,807.84	\$90,807.84	\$90,807.84	\$90,807.84
Building M&R	\$10,000.00	\$10,370.00	\$10,753.69	\$11,151.58	\$11,564.18
Alarm System	\$2,000.00	\$2,074.00	\$2,150.74	\$2,230.32	\$2,312.84
Field House	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Equipment (New)	\$5,000.00	\$5,185.00	\$5,376.85	\$5,575.79	\$5,782.09
Equipment M&R	\$5,000.00	\$5,185.00	\$5,376.85	\$5,575.79	\$5,782.09
RE61 Loan Payment	\$11,583.12	\$6,756.82	\$0.00	\$0.00	\$0.00
Apparatus Savings (10% Net In	\$29,450.00	\$29,450.00	\$29,450.00	\$29,450.00	\$29,450.00
Apparatus M&R	\$35,000.00	\$35,000.00	\$35,000.00	\$35,000.00	\$35,000.00
Fuel	\$10,000.00	\$10,370.00	\$10,753.69	\$11,151.58	\$11,564.18
Training	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
Dues/Donations/Subscriptions	\$100.00	\$103.70	\$107.54	\$111.52	\$115.64
Insurance	\$45,000.00	\$46,665.00	\$48,391.61	\$50,182.09	\$52,038.83
NFIRS/Reporting Software	\$500.00	\$518.50	\$537.68	\$557.58	\$578.21
Communications	\$3,000.00	\$3,111.00	\$3,226.11	\$3,345.47	\$3,469.26
Gas & Electric	\$8,000.00	\$8,296.00	\$8,602.95	\$8,921.26	\$9,251.35
Medical Supplies	\$1,500.00	\$1,555.50	\$1,613.05	\$1,672.74	\$1,734.63
Office Supplies/Postage	\$1,000.00	\$1,037.00	\$1,075.37	\$1,115.16	\$1,156.42
Fund Raising Costs	\$3,000.00	\$3,111.00	\$3,226.11	\$3,345.47	\$3,469.26
Fire Prevention	\$1,500.00	\$1,555.50	\$1,613.05	\$1,672.74	\$1,734.63
Advertising	\$500.00	\$518.50	\$537.68	\$557.58	\$578.21
Awards/Member's Welfare	\$1,000.00	\$1,037.00	\$1,075.37	\$1,115.16	\$1,156.42
Grant Expenses	\$2,500.00	\$2,592.50	\$2,688.42	\$2,787.89	\$2,891.05
Accounting/Professional Fees	\$1,800.00	\$1,866.60	\$1,935.66	\$2,007.28	\$2,081.55
Bank Charges	\$100.00	\$103.70	\$107.54	\$111.52	\$115.64
Uncatagorized					
Total Operating Expenses	\$273,340.96	\$272,270.16	\$269,407.79	\$273,446.34	\$277,634.32
Net Income	\$21,159.04	\$22,229.84	\$25,092.21	\$21,053.66	\$16,865.68
Savings	\$41,450.00	\$70,900.00	\$100,350.00	\$129,800.00	\$159,250.00

Chart: Estimated Payment Plan for Used Apparatus

Principal:	\$216,000	Number of Payments:	240
Term:	20	Monthly Rate:	0.001666667
Annual Rate:	2%	Payment (monthly):	\$1,092.71
Start:		Payment (Annually):	\$13,112.50

Source: Pennsylvania Office of State Fire Commissioner

Chart: Estimated Payment Plan for New Apparatus

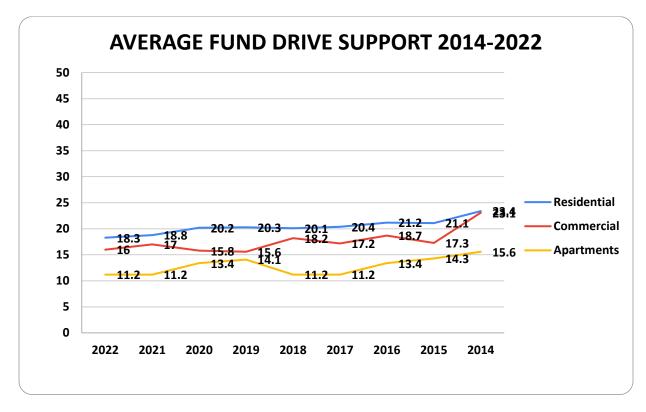
Principal:	\$984,000	Number of Payments:	10
Term:	10	Monthly Rate:	0.005333333
Annual Rate:	6.40%	Payment:	\$101,309.43
Start:			

Source: Pennsylvania Office of State Fire Commissioner

Chart: Average Annual Fund Drive Support

	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average Annual Return 2014- 2022
Percent of return for residential mailings	23.40%	21.10%	21.20%	20.40%	20.10%	20.30%	20.20%	18.80%	18.30%	20.42%
Percent of return for commercial mailings	23.10%	17.30%	18.70%	17.20%	18.20%	15.60%	15.80%	17.00%	16.00%	17.66%
Percent of return apartment mailings	15.60%	14.30%	13.40%	11.20%	11.20%	14.10%	13.40%	11.20%	11.20%	12.84%

Graph: Average Annual Fund Drive Support



Source: Fire Department

Chart: Average Annual Fund Drive Details

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total residential solicitations mailed	3610	3610	3611	3504	3506	3510	3509	3506	3507
Total # of residential solicitations returned	844	761	764	714	704	712	706	657	642
% success for residential mailings	23.40%	21.10%	21.20%	20.40%	20.10%	20.30%	20.20%	18.80%	18.30%
Avg amount gven residental	\$39.57	\$42.20	\$42.38	\$43.47	\$44.59	\$46.63	\$54.01	\$48.81	\$53.33
Total commercial solicitations mailed	312	313	315	303	302	302	304	305	306
Total # of commercial solicitations returned	72	54	59	52	55	47	48	52	49
% success for commercial mailings	23.10%	17.30%	18.70%	17.20%	18.20%	15.60%	15.80%	17.00%	16.00%
avg amount gven commercial	\$129.65	\$121.94	\$137.46	\$142.98	\$132.55	\$133.72	\$160.79	\$168.17	\$167.35
Total apartment solicitations mailed	537	538	538	536	538	538	538	537	537
Total # of apartment soliciations returned	84	77	72	60	60	76	72	60	60
% success for apartment mailings	15.60%	14.30%	13.40%	11.20%	11.20%	14.10%	13.40%	11.20%	11.20%
Avg amount given apartments	\$30.42	\$30.45	\$30.28	34.25	\$33.85	\$33.55	\$32.92	\$34.00	\$36.17

Cost Sharing Formulas

Calculated on total estimated 2024 operating budget: \$294,500 day-to-day operations \$125,500 capital projects

Chart - Program Cost Sharing Formula Based on 2022 Assessed Value

Municipality	Total Assessed ValuePercentage of TotalBudget		Budget Total
Hamburg Borough	\$167,057,000	31.4%	\$131,880
Tilden Township	\$235,968,000	44.3%	\$186,060
Windsor Township	\$129,416,000	24.3%	\$102,060
Total:	\$532,441,000	100.00%	\$420,000

Source: Municipal Governments

Chart - Program Cost Sharing Formula Based on 2020 Census Population

Municipality	2020 Population	Percentage of Total	Budget Total
		Budget	
Hamburg Borough	4,317	41.5%	\$174,300
Tilden Township	3,586	34.5%	\$144,900
Windsor Township	2,490	24.0%	\$100,800
Total:	10,393	100.00%	\$420,000

Source: U. S. Census

Chart - Program Cost Sharing Formula Based on 2018-22 Average Call Volume

Municipality	Total Call Volume	Percentage of Total Budget	Budget Total
Hamburg Borough	1,444	48.5%	\$203,700
Tilden Township	942	31.7%	\$133,140
Windsor Township	589	19.8%	\$83,160
(Others)	(722)	(19.5%)	
Total:	2,975 (3,697)	100.00%	\$420,000

Chart - Program Cost Sharing Formula Based on Assessed Value, Population, and Call Volume Based on Average of Combined Totals

Municipality	Average of Combined Totals	Budget Total
Hamburg Borough	40.5%	\$170,100
Tilden Township	36.8%	\$154,560
Windsor Township	22.7%	\$95,340
Total:	100.00%	\$420,000

Additional Program Cost Sharing Formulas

Chart - Program Cost Sharing Formula Based on Per Parcel Fee

Municipality	Total Parcels*	Percentage of Total Budget	Budget Total
Hamburg Borough	1,802	39%	163,800
Tilden Township	1,574	34%	142,800
Windsor Township	1,232	27%	113,400
Total:	4,608	100%	\$420,000

Source: Municipal Governments

*includes taxable and exempt parcels

Chart - Program Cost Sharing Formula Based on Per Capita Fee

Municipality	2020 Population	Per Capita	Budget Total
Hamburg Borough	4,317	\$40.38	174,300
Tilden Township	3,586	\$40.41	144,900
Windsor Township	2,490	\$40.49	100,800
Total:	10,393	\$40.42	\$420,000

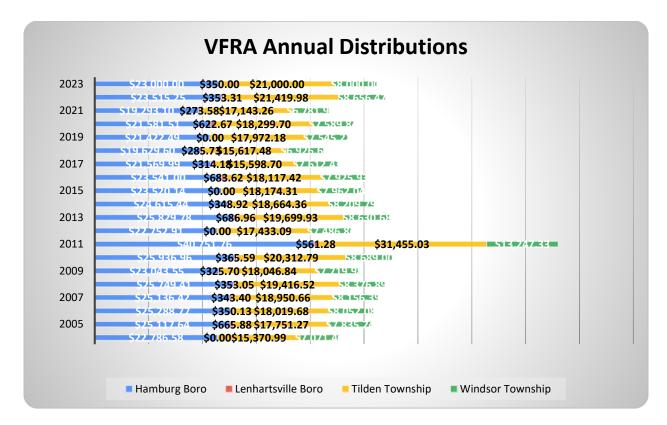
Source: U. S. Census

Chart: VFRA Annual Distributions

	<u>Hamburg</u> <u>Boro</u>	<u>Lenhartsville</u> <u>Boro</u>	<u>Tilden</u> <u>Township</u>	<u>Windsor</u> <u>Township</u>	<u>Total Foreign</u> <u>Fire Tax</u> <u>Income</u>	<u>Total</u> Expenses
2023	\$23,000.00	\$350.00	\$21,000.00	\$8,000.00	\$52,350.00*	\$50,220.00
2022	\$23,515.25	\$353.31	\$21,419.98	\$8,656.47	\$53,945.01	\$59,818.98
2021	\$19,293.10	\$273.58	\$17,143.26	\$6,781.97	\$43,491.91	\$47,422.02
2020	\$21,581.51	\$622.67	\$18,299.70	\$7,589.84	\$48,093.72	\$46,544.16
2019	\$21,422.49	\$0.00	\$17,972.18	\$7,545.22	\$46,939.89	\$27,304.40
2018	\$19,629.60	\$285.73	\$15,617.48	\$6,926.67	\$42,459.48	\$61,811.99
2017	\$21,569.99	\$314.18	\$15,598.70	\$7,612.43	\$47,095.30	\$45,433.57
2016	\$23,541.00	\$683.62	\$18,117.42	\$7,925.93	\$50,267.97	\$58,773.61
2015	\$23,520.14	\$0.00	\$18,174.31	\$7,962.04	\$49,656.49	\$54,232.37
2014	\$24,615.44	\$348.92	\$18,664.36	\$8,209.79	\$51,838.51	\$51,192.56
2013	\$25,829.78	\$686.96	\$19,699.93	\$8,630.68	\$54,847.35	\$74,670.25
2012	\$22,752.91	\$0.00	\$17,433.09	\$7,486.86	\$47,672.86	\$55,926.56
2011	\$40,751.76	\$561.28	\$31,455.03	\$13,247.33	\$86,015.40	\$61,435.29
2010	\$25,936.96	\$365.59	\$20,312.79	\$8,689.00	\$55,305.34	\$68,017.89
2009	\$23,043.55	\$325.70	\$18,046.84	\$7,719.98	\$49,136.07	\$76,700.75
2008	\$25,749.41	\$353.05	\$19,416.52	\$8,376.89	\$53,895.87	\$39,717.09
2007	\$25,136.42	\$343.40	\$18,950.66	\$8,156.39	\$52,586.87	\$101,832.60
2006	\$25,288.77	\$350.13	\$18,019.68	\$8,052.08	\$51,710.66	\$158,837.28
2005	\$25,117.64	\$665.88	\$17,751.27	\$7,835.24	\$51,370.03	\$42,094.58
2004	\$22,786.58	\$0.00	\$15,370.99	\$7,071.40	\$45,228.97	\$38,419.01
Total:	\$484,082.30	\$6,884.00	\$378,464.19	\$162,476.21	\$1,033,907.70	\$1,220,404.96

Source: Volunteer Firefighter Relief Association *2023 represents approved budget

Chart: VFRA Annual Distributions



Source: Volunteer Firefighter Relief Association

Task Assignment: The objective should be put into action by the fire company president, in conjunction with the current municipal liaisons. The Community Fire-Rescue Advisory Board will report back to the fire company and municipalities on a regular schedule.

Timeline: Year 1

STRATEGY RECOMMENDATIONS – CAPITAL ASSETS

Objective 3: Adopt Apparatus Fleet Plan

RECOMMENDED OUTCOMES

- Adopt multi-year apparatus fleet plan
 - Proposed fleet will have four (4) primary pieces of fire suppression and rescue apparatus
 - Estimated \$2 million cost avoidance

Historically in Pennsylvania, volunteer fire companies, ambulances, and rescue squads have planned, purchased, and funded the apparatus, equipment, and facilities that they deemed appropriate to serve their community. In many cases, this also included the perceived needs of mutual aid and automatic aid partners. The organizations would spend countless hours engaging the community through fundraising events, seek financial support from municipal, county, and state government elected and appointed leaders, and if funded, proceed with the implementation of the plan for facilities and apparatus.

In a few cases, more formal plans adopted by volunteer fire companies, ambulances, and rescue squads or municipal governments typically followed a generally accepted national guideline such as the Insurance Services Organization (ISO) and the National Fire Protection Association (NFPA) for apparatus, equipment, water supply, and communication. In most cases across the state however, organizational leadership would simply decide it was time to move forward with replacing or rebuilding a particular piece of apparatus, adding additional apparatus, and upgrading or replacing a facility.

The fire department and municipal officials should **adopt a multi-year apparatus plan for buying and maintaining apparatus**. The reason to do this is two-fold. First, the increased cost to purchase and maintain fire-rescue apparatus, especially for volunteer organizations, is staggering. Current estimates place engines (pumpers) and aerial ladders at more than \$1 million dollars.

The second reason is that a system-wide plan will eliminate duplication of apparatus and provide a better financial planning tool. The proposed plan will not only reduce unnecessary apparatus, but it will also allow for proper purchasing of specialized apparatus for the varying risks in the community while also meeting the legitimate ability of the department to staff the apparatus. **By consolidating the fleet, a cost avoidance estimated at \$2 million is possible.** The municipal governments may choose to create

and maintain an apparatus replacement fund or provide yearly capital contributions to the fire department placed into a restricted account.

In addition to these two reasons, there is one additional challenge that is unique to the fire department. Several pieces of apparatus on the current roster were manufactured by two major fire apparatus manufacturers that are no longer in business. Hahn Fire Apparatus and American LaFrance were both leading manufacturers of fire apparatus at one time, but are now out of business. Hahn ceased operations in 1989 and American LaFrance closed its doors in 2014. This challenge poses many obstacles for the continued maintenance of these pieces of apparatus. Finding replacement mechanical components is getting more and more difficult and the resale potential of both is minimal at best.

SUPPORTING DOCUMENTS

Fire Apparatus Fleet Review

This section provides a review of the fire apparatus fleet, citing established national standards, for the Union Fire Company No. 1 of Hamburg. The review included a physical onsite review of the current fire apparatus inventory, a review and discussion with the Union Fire Company No. 1 of Hamburg officer staff regarding the fire apparatus maintenance procedures and maintenance schedule and included a review of maintenance documents. Also, a suggested replacement schedule is being included as part of the fire apparatus review.

Fire Apparatus Fleet Requirements Defined

There are several standards and guidelines that apply to fire and rescue fleet apparatus. Numerous standards have been developed through a standards development and approval process by various standards committees of the NFPA. These NFPA standards provide input for not only the design of fire apparatus, but also testing of apparatus (and equipment) throughout the life cycle of the fire apparatus. Also, the ISO makes recommendations on fire apparatus fleet requirements and capabilities through the Public Protection Classification (PPC) process for an individual municipality and ISO references the NFPA standards as a benchmark.

Current Fire Apparatus Fleet Inventory

Unit Designator	Year	Manufacturer	Type of Unit
Engine 61-1	1980/1997	Hahn/HCC	Pumper (O.O.S.)
Brush 61	1984/2010	Am. General/M935	Brush
Utility 61-1	1985	Chevrolet	Utility
Rescue 61	1986	Hahn / Saulsbury / HCC	Rescue
Engine 61-3	1992	КМЕ	Pumper-Tanker
Engine 61-2	1994	International / KME	Pumper / Brush
Ladder 61	2000	American LaFrance / LTI	Quint / Ladder Truck
Chief 61	2005	Chevrolet	Duty Vehicle
Utility 61-2	2006	Ford	Duty Vehicle
Rescue-Engine 61	2010	American LaFrance	Rescue-Pumper
Utility 61	2017	Ford/EJ Metals	Utility

The following chart shows the current motorized vehicle fleet for the Union Fire Company No. 1 of Hamburg. Units in the fleet are displayed in year order:

Fire Apparatus Needs based on ISO PPC Rating

As of December 1, 2023, the ISO PPC rating for Hamburg FPSA will be Class 04/4X. As part of the PPC process, the fire apparatus fleet is matched against the fire protection needs of the community. The current PPC rating provided the following credit for the current fire apparatus fleet:

Category	Earned Credit	Credit Available
Credit for Engine Companies	5.99	6.0
Credit for Reserve Pumpers	0.47	0.50
Credit for Pumper Capacity	3.0	3.0
Credit for Ladder Service	3.61	4.0
Credit for Reserve Ladder and Service Trucks	0.07	0.5

The ISO PPC identified and based the credit for needed pumpers off response distance to built-upon areas of the service area, the Basic Fire Flow (identified as 3,500 gallons per minute); and the method of operation. The credit and need for ladder and service companies is identified based upon the number of buildings 3 stories or 35 feet or more in height and buildings with a Needed Fire Flow greater than 3,500 gallons per minute, and the method of operation. The ISO PPC was considered as part of the fleet review.

Distribution of Fire Apparatus

Distribution and deployment of fire apparatus, as well as the geographic location of where they are located and respond from within an assigned fire response district, was not specifically reviewed as part of the fire apparatus fleet review.

Fire Apparatus Fleet Replacement

A generally accepted fact is that all fleet vehicles, whether fire service or other, have a service life expectancy. The length of that service life for fire apparatus will depend on a multitude of factors which will include mileage, engine hours, pump hours (if applicable), type and quality of preventive maintenance program, type and quality of driver training, use/abuse of the fire apparatus, commercial or custom chassis, quality/craftsmanship of the original manufacture, quality of components, and readily available replacement parts. While some factors are difficult to quantify, such as the effectiveness of driver training, other factors can be quantified by applying appropriate standards.

The most recognized standards that are used and pertain to fire apparatus fleets, their life expectancy, and their ultimate replacement, include:

National Fire Protection Association (NFPA):

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Standard 1901 – Standard for Automotive Fire Apparatus
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The 1901 Standard specifies the design, equipping, and testing of new and refurbished fire apparatus.

<u>Standard 1911 – Standard for the Inspection, Maintenance, Testing, and</u> <u>Retirement of In-Service Emergency Vehicles</u>

The 1911 Standard provides extensive guidance for the routine maintenance and testing of fire apparatus. It provides performance test guidelines that assist in determining the serviceability of fire apparatus and recommendations on service life. The standard does recommend that fire apparatus that is more than 15 years old and that has been properly maintained and that is still in serviceable condition be placed in reserve status. Any vehicles that are 25 years old should be replaced.

Standard 1912 - Standard for Fire Apparatus Refurbishing

The 1912 Standard outlines requirements for two (2) levels of fire apparatus refurbishment (Level I and Level II). This standard would apply to any front-line fire apparatus that is refurbished at any time in its life cycle.

 It should be noted that ISO uses the NFPA standards as a benchmark for the PPC process.

American Public Works Association (APWA):

Vehicle Replacement Schedule

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. This weighted point system allows for a more subjective review of a vehicle based on actual conditions.

Age	1 point for every year of chro	onological age, based on in-service date	
Mileage/Hours	1 point for each 10,000 mile	s or 1,000 engine hours of use	
Type of Service	1, 3, or 5 points based on the type of service the unit is exposed to. First-line fire apparatus is 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 5 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 a vehicle that is in the shop for repair once every 3 months or less		
Maintenance & Repair Costs	1 to 5 points based on the 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 Range	Fewer than 18 points: Excellent Condition		
	18 to 22 points:	Good Condition	
	23 to 27 points:	Qualifies for Replacement	
	28 points or above	Needs immediate consideration	

Union Fire Company No. 1 of Hamburg Fire Apparatus Fleet Review – APWA

When performing a review of the Union Fire Company No. 1 of Hamburg fleet, the five primary units (Utility 61, Rescue-Engine 61, Ladder 61, Engine 61-2, Engine 61-3, and Rescue 61) were the only units specifically reviewed in regard to current and future needs and replacement. When reviewing using the APWA Vehicle Replacement Schedule standards, the following data is presented:

UTILITY 61	2017 Ford / EJ Metals		
Age	6 years old	6 points	
Mileage/Hours	9,200	1 point	
Type of Service	Front-line / severe duty	5 points	
Reliability	Very reliable	1 point	
Maintenance & Costs average for 6-year-old-veh		2 points	
Repair Costs	(\$5,100 in past 6 years)		
Condition	Very good condition 1 point		
	TOTAL POINTS	16 points	

RESCUE-ENGINE 61	2010 American LaFrance pumper	
Age	13 years old	13 points
Mileage/Hours	30,100 miles; 3,200 engine hours	3 points
Type of Service	Front-line / severe duty	5 points
Reliability	Unknown	2 points
Maintenance &	Costs average for 13-year-old vehicle; 3 points	
Repair Costs	(\$45,000 in past 13 years)	
Condition	Interior of cab is in poor condition; most	3 points
	used pumper; crew area needs attention	
	TOTAL POINTS	29 points

LADDER 61	2000 American LaFrance / LTI		
Age	23 years old 23 points		
Mileage/Hours	24,500 miles; 3,300 engine hours	3 points	
Type of Service	Front-line / severe duty	5 points	
Reliability	Engineer maintains this vehicle well 2 points		
Maintenance &	High costs, but average for 24-year-old	5 points	
Repair Costs	vehicle (\$158,700 in past 13 years)		
Condition	Good condition, interior cab damage 3 points		
	TOTAL POINTS	41 points	

ENGINE 61-2	1994 International / KME / Fire Fox (4WD)		
Age	29 years old	29 points	
Mileage/Hours	29,407 miles; 4,400 engine hours	4 points	
Type of Service	ce Front-line / light duty 2 points		
Reliability	Repair average: <1 per quarter	1 point	
Maintenance &	Expected costs - \$26,900 in past 13 years	3 points	
Repair Costs	Repair Costs		
Condition	Condition Good condition, used mainly on brush fires		
	and misc. fires		
	TOTAL POINTS	41 points	

ENGINE 61-3	1992 KME / Fire Fox				
Age	31 years old	31 points			
Mileage/Hours	21,400 miles; unknown engine hours	2 points			
Type of Service	Front-line / light duty 2 points				
Reliability	Repair average: <1 per quarter	1 point			
Maintenance &	Expected costs - \$37,000 in past 13 years	4 points			
Repair Costs					
Condition	Fair condition; rust on compartments	4 points			
	TOTAL POINTS	44 points			

RESCUE 61	1986 Hahn / Saulsbury / HCC	
Age	37 years old	37 points
Mileage/Hours	33,000 miles; 5,100 engine hours	5 points
Type of Service	Front-line / severe duty	5 points
Reliability	Mechanical issues	5 points
Maintenance &	Expected costs for age; excessive - \$49,500 in	5 points
Repair Costs	past 13 years)	
Condition	Open jump seat (no longer used); very old	5 points
	TOTAL POINTS	62 points

Based on the APWA Vehicle Replacement Schedule ratings, the Union Fire Company No. 1 of Hamburg fleet rates as follows:

Excellent	Good	Qualifies for	Immediate
		Replacement	Consideration
	Utility 61		Ladder 61
			Engine 61-2
			Engine 61-3
			Rescue-Engine 61
			Rescue 61

Fire Apparatus Fleet Recommended Replacement Schedule

Based upon in-person inspection and review of the Union Fire Company No. 1 of Hamburg fleet, review of maintenance and repair records, as well as considering the recommendations of the ISO PPC rating for the fire district, NFPA recommendations, and the APWA Vehicle Replacement Schedule ratings, the following fire apparatus replacement schedule is being presented for consideration for the Union Fire Company No. 1 of Hamburg:

Rescue 61 Engine-Rescue 61 Engine 61-3	2026 2028 2028	\$1,200,000* Replace with <u>Rescue-Engine</u> \$1,400,000* Replace with one (1) <u>Engine-Rescue</u>	
		\$1,400,000* Replace with one (1) <u>Engine-Rescue</u>	
		Replace with one (1) Engine-Rescue	
Engine 61-3	2028		
		المعالم منتظ المما محتم والمالي	
		(downsize – sell two, buy one)	
Ladder 61	2030	\$800,000	
		Consider refurbishing Ladder, if	
		appropriate	
Engine 61-2	2035	\$750,000	
		Replace with <u>Wildland Urban</u>	
		Interface Engine	
Utility 61	2024-37	Maintain number needed based on	
		current operations	
		*Based on information received from two leading manufacturers #Will need re-evaluated 2028-29	
	Engine 61-2	Engine 61-2 2035	

<u>Comments regarding the Fire Apparatus Fleet and the Recommended</u> <u>Replacement Schedule</u>

- **Resale value.** It is difficult to determine the resale value of fire apparatus. Resale value can vary depending on factors such as if the vehicle is "traded-in" to a vendor during the purchase of a new unit; whether the fire apparatus is advertised and sold by the fire company; or whether the fire apparatus is sold to a used fire apparatus broker. Resale value is also affected by the condition of the unit at the time of sale. With the myriad of factors affecting resale value, most specifically the age and condition of your vehicles, there is no resale value estimated in this Replacement Schedule. It should simply be noted that there is some resale value for each unit that may reduce the overall cost of the proposed Replacement Schedule.
- The proposed Fire Apparatus Fleet Recommended Replacement Schedule only includes the four (4) primary front-line fire apparatus for the fire department; it does not include utility/squad apparatus, sport utility vehicles for Chief officer use, or specialized equipment such as boats and trailers. These items must be considered as part of a full Fire Apparatus Fleet Replacement program. A replacement schedule that is typical for those types of units in a fire service fleet is:
 - Boats replacement on a 20-year service life
 - Command/Chief units replacement on a 12-year service life
 - Utility/Pickups replacement on a 15-year service life

The age and condition of Chief 61's duty vehicle should warrant replacement as soon as possible. To have sufficient funds available for front-line fire apparatus, this vehicle should be replaced with a quality used sport utility vehicle (preferably one that is in very good condition and possibly previously used as an emergency vehicle so that it may be bought with emergency equipment already included). Another option would be to downsize the command vehicle fleet to save costs, then use 1 or 2 on a rotating basis.

• Fleet consolidation. The recommended fleet consolidation includes least the 1992 and 1994 pumpers - replacing both pumpers with one quality used pumper, reducing the size of the fleet and saving future capital costs. Reviewing the current staffing statistics, coupled with ISO PPC recommendations, we believe four (4) front-line fire apparatus (and utilities vehicles as needed) are most appropriate for the fire department. One Rescue-Engine, one Engine-Rescue, an Aerial Ladder, and a Wildland Urban Interface Engine should be sufficient

resources for your service area, taking into current staffing, while still providing adequate resources for mutual aid responses.

• Suggested Replacement Year. Based on the current age of your fire apparatus, and the lack of funds set aside for capital expenses, it is recommended that you strongly consider pursuing quality used fire apparatus to replace your current fleet. Many volunteer fire companies in Central and Eastern Pennsylvania replace fire apparatus between 15-20 years of age, most of which have many years of service remaining. Based on the use of your vehicles and the trend in staffing, this would also lead to the recommendation that you reduce the overall number of vehicles in your fleet. Due to searching for used fire apparatus, the exact time to pursue and purchase the replacement vehicles may vary due to availability. However, the current market for used apparatus is extremely high and shows no sign of decreasing in the foreseeable future. Also, keep in mind purchasing a used piece of apparatus may bring along unforeseen challenges, such as purchasing someone else's problem.

	Brush 61	<u>E61-1</u>	<u>E61-2</u>	<u>E61-3</u>	<u>R-E 61</u>	<u>L61</u>	<u>R61</u>	<u>U 61</u>
2013	9	32	22	61	218	85	83	0
2014	3	0	6	28	26	16	27	0
2015	5	4	7	15	55	10	12	0
2016	10	0	5	23	200	44	57	0
2017	3	2	4	16	220	38	35	0
2018	10	23	13	43	281	43	24	112
2019	8	0	12	14	244	31	27	131
2020	11	0	23	17	290	49	48	77
2021	3	0	18	10	167	25	39	54
2022	4	0	55	42	225	46	58	98
Totals	66	61	165	269	1926	387	410	472

SUPPORTING DOCUMENTS

Chart: Apparatus Usage Per Year 2013-2022

Chart: Annual Emergency Calls

2015	2016	2017	2018	2019	2020	2021	2022
268	674	744	977	731	705	586	698

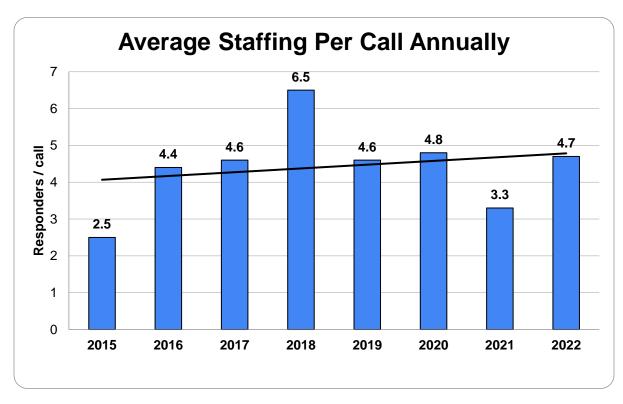
Source: Fire Department

Chart: Average Staffing Per Call Annually

2015	2016	2017	2018	2019	2020	2021	2022
2.5	4.4	4.6	6.5	4.6	4.8	3.3	4.7

Source: Fire Department

Graph: Average Staffing Per Call Annually



Task Assignment: The objective should be put into action by the fire department fire chief and line officers in conjunction with the proposed Community Fire-Rescue Advisory Board.

Timeline: Year 1

STRATEGY RECOMMENDATIONS – CAPITAL ASSETS

Objective 4: Complete Station Upgrades

RECOMMENDED OUTCOMES

- Develop a punch list of all remaining station upgrades
- Secure services of an outside contractor to complete work

Since the report "Pennsylvania Burning" was released in 1976 to the most recent legislative report on the health of the Fire and EMS system in Pennsylvania, "Senate Resolution 6 or more commonly referred as SR 6", the number of available and trained volunteers for fire companies, ambulances, and rescue squads has continued to decrease year after year. It is estimated that Pennsylvania had roughly 38,000 active volunteers in 2018, down from an estimated 300,000 active volunteers in the mid-1970s. From state-wide studies to any of the numerous local or regional evaluations conducted across the state, all indicate that volunteer numbers are steadily decreasing.

An all-volunteer staffed fire-rescue system exists only because of the dedicated members of the community who willingly donate a significant portion of their time and talent. Today, everyone is busy. Like it or not, members who handle the "business side" of the organization are rare and their replacements are becoming harder and harder to find. The administrative workload to keep any organization running smoothly is time consuming and continues to increase. The focus of today's volunteer firefighter and emergency responder is to attend training and respond to calls, not perform building construction services. *Develop a punch list of all remaining station upgrades*, determine associated costs, and *secure services of an outside contractor to complete the work* to the fire station.

Task Assignment: The objective should be put into action by the fire department fire president, fire chief, and line officers in conjunction with the proposed Community Fire-Rescue Advisory Board.

Timeline: Year 1

WORK PLAN

Objectives	Time Frame
Establish Community Fire-Rescue Advisory Board	Year 1
Adopt Consistent and Reliable Funding	Year 1
Implement one-third funding increase	Year 1
Implement one-third funding increase	Year 2
Implement one-third funding increase	Year 3
Adopt Apparatus Fleet Plan	Year 1
Complete Station Upgrades	Year 1

APPENDICES

- Appendix 1 Stakeholder Input and Interviews
- Appendix 2 Maps
- Appendix 3 Terminology
- Appendix 4 Estimated Annual Budget for Full-time Career Fire Department

APPENDIX 1 – STAKERHOLDER INPUT AND INTERVIEWS

Stakeholder Input and Interviews	Date
Data collection	June 2023
Joint fire company and municipal officials meeting	July 2023
Fire station and fire district tour	July 2023
Fire company officer interviews	September 2023
Apparatus review	September 2023
Municipal interviews	September 2023
Fire company officer interviews, budget review	October 2023
Follow-up interviews and additional data collection	October 2023
Report finalized, PowerPoint presentation to client	November 2023

APPENDIX 2 – MAPS

Space Holder – First Due Response Area Map – Space Holder

APPENDIX 3 – TERMINOLOGY

Automatic Aid: A formal or non-formal agreement between neighboring fire departments, ambulance services and rescue squads to "automatically" assist each other on the "initial" dispatch to an emergency when apparatus and manpower are available.

Benchmark: A standard from which something can be judged. Searching for the benchmark, or best practice, will help define superior performance of a product, service, or process.

Career Firefighter: An individual whose primary employment is as a firefighter for a municipality or other agency or company and who derives the majority of his earned income working in the fire service.

Call for Service (aka Fire Call, 911 Call): This term refers to any urgent, 911 fire, rescue and emergency medical call for assistance. This may also include non-emergency calls for service including, but not limited to: lock outs, home flooding, welfare checks, lift assists, lost persons, and animal rescues.

Command: This term refers to the individual in charge of the incident that is directing the activities of all other responders.

Concentration: Spacing of multiple resources arranged so that an initial "effective response force" can arrive on scene within the time frames outlined in on-scene performance expectations.

Distribution: Geographic location of all first-due resources for initial intervention. Generally measured from fixed response points, such as fire stations, and expressed as a measure of time.

Driver/Operator (aka Engineer, Pump Operator, Pump Technician, Chauffeur): A firefighter who is responsible for driving the engine safely to the scene of the call and the operation of the pumps on an engine, to provide sufficient water to the firefighters on the hose. The term may be either a position title or a rank; usage varies among departments.

Effective Response Force – The minimum amount of staffing and equipment that must reach a specific emergency zone location within a maximum prescribed total response time and Is capable of initial fire suppression, EMS, and/or mitigation.

Engine (aka Pumper, Fire Engine, Pump Truck): A fire suppression vehicle that carries and pumps water and is designed to carry firehose used to supply water to the pump and attack, control and extinguish fire.

Engine Company (aka Pumper Company): A group of firefighters who are assigned to and man a fire "engine" (pumper) apparatus with a water pump and equipped with firehose and other tools related to fire extinguishment.

Extrication: The removal of a trapped victim such as a vehicle extrication, confined space rescue, or trench rescue; sometimes using hydraulic spreader, Jaws of Life, or other technical equipment.

Fire Apparatus: Fire-Rescue Apparatus is divided into seven categories by National Fire Protection Association, Standard 1901. This includes *Pumper* Fire Apparatus, *Initial Attack* Apparatus, *Mobile Water Supply* Apparatus, *Aerial* Apparatus, *Quint* Fire Apparatus, *Special Service (Rescue)* fire apparatus, and *Mobile Foam* fire apparatus. Each of the categories are defined in detail by the NFPA Standard to which all fire apparatus must be constructed in the United States.

Fire Station (aka Fire House, Engine House): A fire station is a permanent structure or designated area established for storage of firefighting and rescue apparatus (fire engines, ladder trucks, ambulances, and related fire-rescue vehicles), personal protective equipment, firehose, fire extinguishers, and other related fire. In many cases it may also have kitchen, dormitory living and fitness facilities as well as work areas such as offices, meeting rooms, workshop, and laundry.

Fire Inspector: A person who is responsible for issuing permits and enforcing the fire code, including any necessary premises inspection as, before allowing (or during) a large indoor gathering.

Fire Marshal: Administrative and investigative office for fire prevention and arson investigation

Fire Police: A volunteer firefighter, special police officer or constable who is part of a fire department, tasked with ensuring the safety and security of emergency scenes, traffic control, crowd management as well as general assistance to the fire department and other agencies.

Firefighter: A rescuer extensively trained primarily to put out hazardous fires that threaten civilian populations and property to rescue people from car accidents, collapsed and burning buildings and other such situations. The increasing complexity of modern industrialized life with an increase in the scale of hazards has stimulated both advances in firefighting technology and a broadening of the firefighter-rescuer's remit.

Hazardous Materials: Any materials which may include solids, liquids, or gasses which may cause injury, death, or damage if released or triggered.

ISO Rating (Insurance Services Office Public Protection Classification Rating): This is a rating number published by the Insurance Services Office used by insurance companies in many states to determine homeowner insurance premiums. Recently some insurance companies, including

State Farm, have now adopted a per-zip-code, actual loss, based system in several states and no longer use the ISO (PPC) system.

Ladder Truck (aka Ladder, Hook and Ladder, Truck, Aerial, Snorkel): A fire truck that has an extension ladder, carries certain firefighting equipment, and can be set up to flow large quantities of water from an elevated position is called a "Ladder Truck."

Mass casualty incident (MCI): Any incident that produces many injured persons requiring emergency medical treatment and transportation to a medical facility. The exact number of patients that makes an incident "mass casualty" is defined by departmental procedures and may vary from area to area.

Mutual Aid: A formal or non-formal agreement between neighboring fire departments, ambulance services and rescue squads to assist each other when "requested" by the officer-incharge of the neighboring agency to an on-going emergency when apparatus and manpower are available.

NFPA (National Fire Protection Association): A research group which sets several standards and best practices for firefighting, equipment, and fire protection in the United States. These standards have also been adopted in many other countries around the world.

Professional Firefighter: All firefighters are classified as "professionals" by both the International Association of Fire Chiefs (IAFC) and the International Association of Fire Fighters (IAFF trade union). All firefighters are required by most state laws and general practice to meet the same training and equipment standards, take the same examinations for promotion and perform the same work under the same hazards. There are two accepted categories of Professional Firefighters--Volunteer Firefighters who may or may not receive pay for services and Career Firefighters whose primary employment and source of earned income is in the fire service.

Quint: A combination type of firefighting apparatus with five defining attributes. The Quint apparatus is both a Pumper and a Ladder truck. A "Quint" has: 1. a pump, 2. hose, 3. a water tank, 4. ground ladders, and 5. an aerial ladder.

Rescue: Physical removal of a living person or animal from danger to a place of comfort.

Rescue Company: A group or squad of firefighters trained and equipped to enter adverse conditions and rescue victims of an incident. In some areas of jurisdictions, this is often delegated to a Truck Company.

Rescue Engine: A single piece of fire apparatus that can operate as either a rescue or an engine. This apparatus normally is outfitted with heavy rescue equipment, hose lines, pump, water tank, etc.

SCBA (Self Contained Breathing Apparatus): Specialized breathing equipment which has an oxygen tank and mask. This equipment keeps firefighters and other rescue personnel from breathing in smoke and other hazardous gases. This equipment is part of a firefighter's personal protective equipment (PPE).

Standard Operating Procedure, Guideline (SOP or SOG): Rules for the operation of a fire department, such as how to respond to various types of emergencies, training requirements, use of protective equipment, radio procedures; often include local interpretations of regulations and standards. In general, "procedures" are specific, whereas "guidelines" are less detailed.

Station Activities: In addition to calls for service, volunteer fire and EMS personnel perform many other activities while on-station. This includes but is not limited to monthly membership meetings, volunteer firefighter's relief association meetings, committee meetings, company trainings, work details, and community engagement events.

Structure Fire (aka Structural Fire, Building Fire, House Fire): A fire in a residential or commercial building. Urban fire departments are primarily geared toward structural firefighting.

Tanker (aka Tender, Water Tender): A road-based fire apparatus equipped to carry large volumes of water to a fire. This piece of apparatus is typically used in rural areas without an adequate supply system, such as rural areas without hydrants. Tenders may have pumps and associated hardware to facilitate their mission. Some regions of the country, fire departments refer to this apparatus as Tenders or Water Tenders.

Truck Company (aka Ladder Company): A group of firefighters assigned to staff an apparatus that carries aerial and ground ladders, forcible entry tools, possibly extrication tools and salvage covers, and who are otherwise equipped to perform rescue, ventilation, overhaul and other specific functions at fires; also called "ladder company".

Turnout Gear (Bunker Gear, Turn Outs): The protective clothing worn by firefighters and other rescue personnel made of a fire-resistant material such as Nomex or Aramid and designed to shield against extreme heat. This includes jacket, pants, helmet, gloves, fire-resistant hood, and boots. This equipment is part of a firefighter's personal protective equipment (PPE).

Volunteer fire department: An organization of part-time firefighters who may or may not be paid for on-call time or firefighting duty time, but who in nearly all states are held to the same professional training standards and take the same examinations to advance in rank as career firefighters. [In some regions, particularly eastern New York, New Jersey, Pennsylvania and Maryland, volunteer fire departments and fire protection districts have independent taxing authority and are equally as well equipped and paid while working as career fire department members.]

Wildland Urban Interface (WUI): According to the U.S. Fire Administration, the WUI is "the zone of transition between unoccupied land and human development."

APPENDIX 4 – ESTIMATED ANNUAL BUDGET -FULL-TIME CAREER FIRE DEPARTMENT

Estimated Annual Budget - Full-time Paid Fire		
Department		
Area Protected (square miles)		43
Population Protected		10,393
Number of Stations:		1
Number of Apparatus:		
Engine-Rescue		1
Aerial Ladder		1
Tankers		-
Rescue-Engine		1
Utility Vehicles		1
Wildland-Urban Interface Engine		1
Ambulances		-
Otenting a slow for some findightens in the period (inclusion has slite)		
Starting salary for career firefighters in the region (including benefits) Chief	\$	00.000
		90,000
Deputy Chief	\$ \$	-
Assistant Chief		-
Captain Lieutenants	\$ \$	75,000
		60,000
Drivers	\$	-
Medics	\$	-
Firefighters	\$	50,000
Administrative	\$	40,000
	\$	-
	\$	-
Average salary of career line officers in the vicinity:	\$	45,000
Number of full-time career personnel necessary (4 shift system)		
Officers (one Lieutenant per shift)		4
Firefighters (twelve firefighters per shift)		48
Drivers		-
Medics		-
Administrative		1
SAFER Funding, Incentives, Stipends, Cash-per-call expense	\$	-
Career Firefighter Costs	\$	2,580,000
Career Administrative Costs	\$	40,000
Total Career Costs:	\$	2,620,000

Personal Protective Clothing Costs	\$ 234,000
Apparatus Costs	\$ -
Capital Equipment Expense:	\$ 234,000
Total Estimated Annual Budget:	\$ 2,854,000