

**DRAFT**

**RAPPAHANNOCK COUNTY VOLUNTEER FIRE & RESCUE ASSOCIATION**



# **STRATEGIC PLAN: 2020**

March 2020

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## **I. INTRODUCTION**

This Strategic Plan provides a framework for the Association, the individual companies and the County to continue providing responsive and effective fire suppression, rescue and emergency medical services for the citizens of Rappahannock County, Virginia. It must be understood that this Strategic Plan should be a living document with periodic revisions as more detailed plans are developed for moving forward and as F&R situations change.

This Plan is organized as follows:

- a. In order to move forward, we need to start with an assessment of our current performance and capabilities. Section II reviews our assessment of how well we are doing in terms of our response to EMS, accident and fire incidents, the adequacy of our force of all-volunteer fire and EMS first responders, and the adequacy of our current apparatus to meet our needs. This is an update of the 2019 Strategic Plan.
- b. Section III of this Plan discusses where we want to be in five years in each of the areas discussed above.
- c. Section IV examines the challenges we face in moving from where we are now to where we want to be in five years. A key challenge is maintaining a viable effective volunteer force in the face of an unfavorable demographic reality which is projected to become even more difficult over time as the population over age 65 continues to increase and our younger populations continues to decrease.
- d. Section V addresses how we propose to meet the challenges over the next five years and continue to provide excellent service to the citizens of the County.
- e. The final section summarizes the budget for the coming year and the five-year projection. It needs to be acknowledged that the budget will change from year to year to meet the needs as they change over time.

## **II. CURRENT RESPONSE STATUS, STAFFING AND APPARATUS**

We begin this section with a review of the County response standards for fire and EMS and how well we are doing in terms of getting on scene in a timely manner with appropriate staff and apparatus. Since having sufficient volunteer firefighters and EMTs available 24/7 and 365 is the critical challenge, we follow with a review of our current volunteer staffing.

## Current Response Standards

The Fire & Rescue/EMS Services Agreement signed in 2018 specifies three County-Wide Objectives:

- a. Response Time: Respond within 8 minutes and be on scene within 25 minutes, 24 hours a day, 7 days a week, 365 days a year, 90 percent of the time.
- b. Fire and Rescue: The ability to respond to an event and minimize to the extent possible the loss of life, loss of property and structural damage. This includes the ability to enter a burning building and rescue the occupant(s), with the appropriate number of qualified firefighters and the necessary apparatus. Volunteer fire and rescue Companies will provide the resources, command and control necessary to perform safely while mitigating the consequences of the emergencies.
- c. Emergency Medical Services: The county-wide ability to respond to two simultaneous events and administer medical aid and transport to hospital, with appropriate number of certified and qualified personnel, that is, medic unit to a medic call, and the necessary apparatus.

## Meeting Response Standards in the Coming Year is a concern

The Rappahannock County Volunteer Fire and Rescue Association (RCVFRA) has been monitoring response performance for the past six years through reviews of dispatch reports conducted every six months by the Chiefs' Committee. Every dispatch (call) with an on-scene response time greater than 19 minutes is examined.

The latest studies for January through June, and July through December 2019 shows the County's volunteer companies in the aggregate are exceeding the response standard. i The key findings of the study are:

- a. 10 (1%) out of the total of 936 EMS calls took more than 24 minutes to get an appropriate level ambulance on-scene as shown in Figure 2.1.
- b. 28 (3%) of EMS calls exceeded 19 minutes (defined as delayed response) to get an appropriately staffed ambulance on-scene
  - a. 8 of the 28 were at night (defined as after 10:00 PM and before 7:00 AM) when responders have to get out of bed, get dressed and drive to the station before responding.
  - b. 14 of the 28 were ALS calls. 6 of the ALS calls took more than 24 minutes to get an ALS ambulance on scene.
- c. 2 (1%) out of the total of 201 fire calls took more than 19 minutes to get an engine on-scene. None exceeded 24 minutes.

The County's fire and rescue volunteers worked very hard to produce these results and should be very proud of their achievement in 2019. They exceeded the County response standard 99 percent of the time. This record is particularly impressive given that it takes at least 20 minutes to get from the closest station to our most remote residences when roads are good. Nevertheless, there is serious concern about the volunteers' ability to continue to produce good response results.

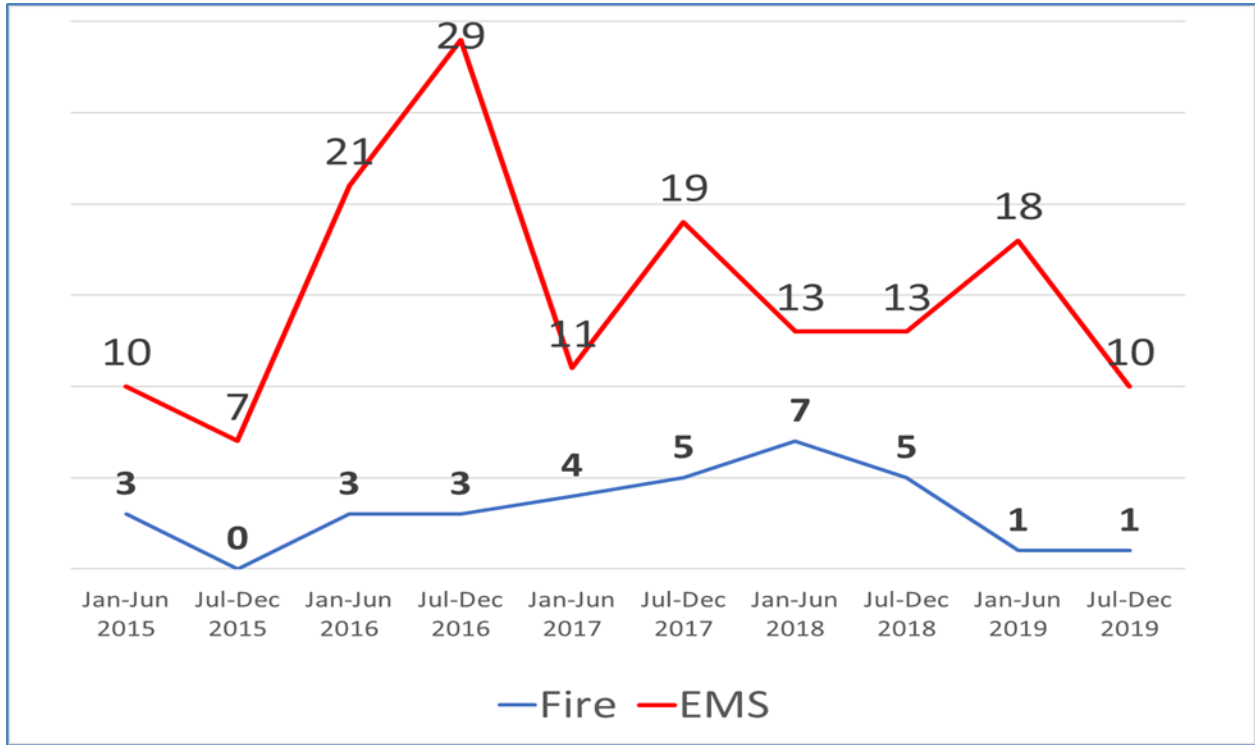
There are several areas of concern about our ability to maintain volunteer F&R response:

- a. One company in particular has been struggling and has an ambulance crew response rate of only 38 percent for EMS calls during the last six months of 2019. In this case, other surrounding companies offered effective in-county backup (automatic aid) thereby maintaining good response times in all the 1<sup>st</sup> due areas of the County.
- b. Other companies currently have good response numbers, but this is often accomplished through the extraordinary efforts of just a few members. Those companies could be in crisis with the loss of as few as one or two of their critical volunteers (See the staffing section for more detail).
- c. Another area of concern is nighttime response. While we lack good data on the number of nighttime calls, our guess is that no more than one call in ten is at night or a total of perhaps 94 nighttime EMS calls. The 15 delayed responses would imply that roughly 16 percent of nighttime calls take more than 19 minutes to get on scene. This is an issue that the Chiefs Committee of the Fire and Rescue Association in conjunction with the County Office of Emergency Management needs to address. Hopefully, the new dispatch system will have the capability of assisting with this type of monitoring.
- d. The final area of concern is availability of Medics (ALS providers). Several of our volunteer ALS providers have retired or are planning to retire within the next year. This raises serious questions about the future availability of ALS providers who are critical for treating more serious incidents like heart attacks. This issue is addressed in the staffing section.

### **Trends in Response Times**

Since we now have five years of data on response times, we can look at the trends over time. Looking back to 2016 there is a clear improvement in EMS response times. The numbers in Figure 2.1 for 2015 are not comparable as they show the numbers for less than 25 minutes rather than less than 20 minutes. Comparing 2019 annual numbers to 2016 annual numbers, an appropriately staffed ambulance (BLS for a BLS call and ALS for an ALS call) was on scene 97 percent of the time in 19 minutes or less in 2019 and 94 percent of the time in 2016. Therefore, our response times clearly are better in 2019 than 2016, but 2019 was not quite as good as 2018 (See Figure 2.1).

**FIGURE 2.1: Trend in Percent of Fire and EMS Calls Over 19 M**



### Staffing Situation is a Serious Concern

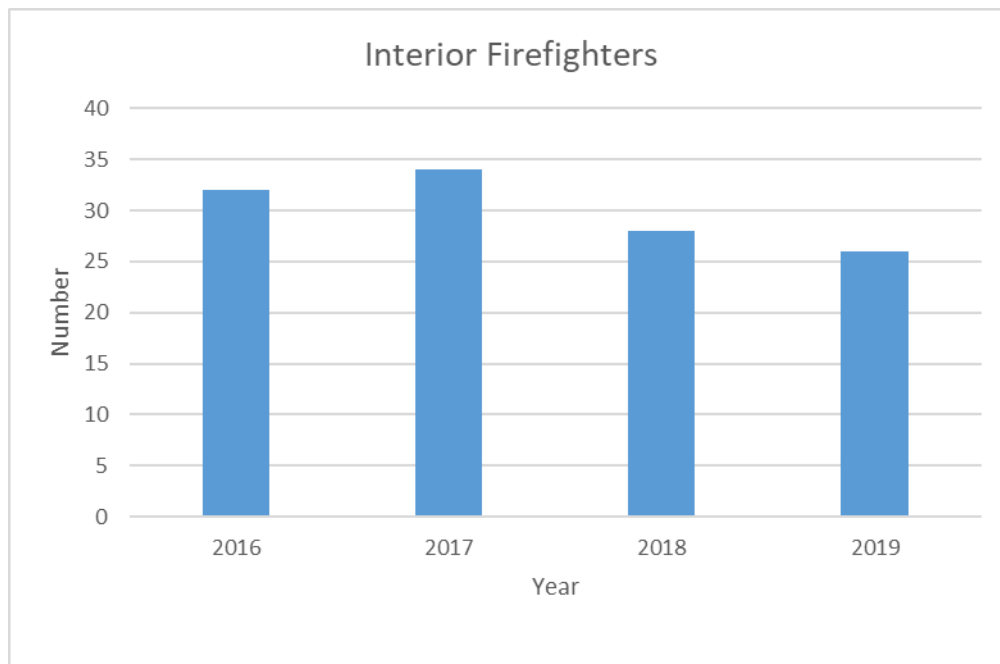
Given our increasing concern about volunteer staffing, the County Office of Emergency Management has conducted an annual survey for the past five years of each F&R company’s volunteer staff. The results of the 2016 through 2019 surveys provide the primary data for this section.

A key issue that must be decided in talking meaningfully about volunteer staff is which volunteers should be counted in determining the number of effective responders to fight structure fires or handle EMS emergencies. There are many more volunteer responders on the company rolls with firefighter or EMS credentials than are realistically going to show up for an emergency. In fact, many do not show up for more than one or two calls a year. This report follows the guidance of *Rappahannock County 2014 Capabilities Assessment* in counting only

those active responders responding to at least 10 percent of their company’s calls. (JLN Associates, 2015, p. 19) We have further limited our definition of available interior firefighters to those under age 65 and limited our definition of available EMS responders to those under age 70<sup>ii</sup>.

Using this definition of available interior firefighters, we can compare the current 2019 OEM survey numbers for the County with the 2016 survey numbers. The 2019 interior firefighter numbers have decreased to 26 compared to 32 in 2016 as shown in Figure 2.2. Whether or not this number of interior firefighters is sufficient to handle a major structure fire depends on the availability of volunteers. On any given day half or more of that number may not be available as some are working or away, leaving maybe 13 available or on average a little over 2 for each of the six fire companies. The fact that there are fewer in 2019 than 2018 and 2017 indicates the trend continues to be downward.

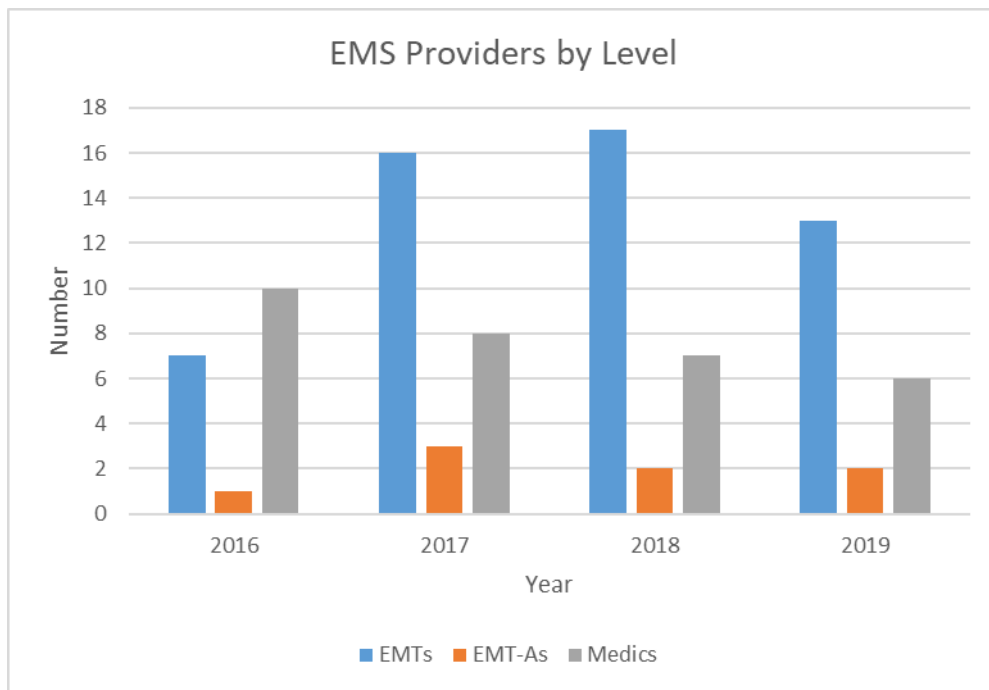
**FIGURE 2.2: Trend in Number of Active Interior Firefighters**



Similarly, using the above definition of EMS providers we can compare the current 2019 OEM survey numbers for the County with the 2016 survey numbers. The trends are troublesome. At the time of the current survey the number of active Medics in the County had dropped from 10 in 2016 to 6. The number of EMTs was 13 down from 16 in 2017 and 17 in 2018. The 13 EMTs

illustrates the gravity of our EMS staffing situation: Each of the 6 EMS companies has on average just over two active EMTs, and each of the three ALS companies on average has just two Medics as shown in Figure 2.3.

**FIGURE 2.3: Trend in Number of Active EMTs and ALS Providers**



Response hasn't yet suffered as much from this shortage as might be expected because responders over the age of 70 have continued as active responders. Several have been key responders on a large proportion of calls are over age sixty-five or seventy. Some have been handling many of our ALS EMS calls, a particularly critical area. They will fade away before



long. This staffing issue is the driving force behind the Association's recommendation that funding be available in FY21 to supplement our volunteers with paid staff. The transition to younger providers will be on-going, with the next 2 to 3 years a key period.

As just mentioned, a key concern is the expected loss of Medics. As a County we have been blessed with having exceptionally dedicated and capable volunteer Medics. The number of Medics has shrunk from 10 to 6 and we anticipate losing at least one more over the next year or so. Possibly filling some of that gap, we have two EMTs expected to complete their Medic certification this year. However both of them work full-time and their availability may be limited.

### **Apparatus Generally Well Suited to Our Needs**

The assessment of the County's fire and rescue Chiefs is that the apparatus owned by the F&R companies is well suited to our needs and distributed around the County in a manner that serves our communities well. It is important to note that relatively little County funds were used to pay for the equipment. It was generally purchased with a combination of grant funds and funds raised by the companies. Much of the fire equipment was purchased used, but in good condition.

This section reviews the apparatus owned and maintained by fire and rescue companies in the County and how that apparatus supports the overall goal of minimizing the risk to life and property from events such as fire, floods, wind, accidents and medical emergencies. Achieving the risk mitigation goal depends on having the right apparatus located appropriately for a quick response. Each type of apparatus, its purpose and distribution across the companies is discussed next:

- a. **Class A Pumpers (Fire Engines).** All of the six fire companies in the County have a fire engine. A fire engine is necessary to obtain even a minimal fire insurance ISO rating for the area surrounding a fire station. Suppression of a significant structure fire generally requires a minimum of two engines at the structure and often a third engine drafting water from a river or pond in order to supply water to the tankers transporting water to the scene. Class A Pumpers carry more water and have higher capacity pumps that give them an advantage in fighting larger structure fires compared to an attack.
- b. **Attacks.** Four of the fire companies have an attack. Attacks are short wheel base pumpers that are more maneuverable and therefore able to access locations that can't be reached by standard fire engines. These are particularly important in Rappahannock given the location of many homes and other structures accessed via narrow, steep and twisting lanes. These smaller lighter fire engines are able to reach difficult places and fight structure fires that the larger fire engines can't reach. Attacks are sometimes called urban interface fire vehicles.
- c. **Tankers.** Five of the fire companies have a tanker for transporting water to the fire engines at the scene. Major structure fires often employ all five tankers and the officer in command may call for additional tankers from out-of-county mutual aid. The role of

tankers is usually critical given the rural nature of the County generally lacking fire hydrants and the water source is often miles away in a river or a pond. The tankers go to and from the water source to the structure fire dumping their load of water and returning to the source to refill.

- d. **Brush Trucks.** Every fire company has a brush truck. Rappahannock's forests and pastures are very susceptible to brush fires in dry conditions as demonstrated in March 2018. On March 2, 2018, every Rappahannock fire company plus mutual aid from surrounding counties was dispatched to five brush fires between 10:50 and 13:50.<sup>iii</sup> Every available brush truck and tanker in the County and from mutual aid localities were deployed to contain the five blazes. The largest of the fires on Yancey Road consumed approximately 100 acres before it could be contained over 3 hours later. These trucks generally are four-wheel drive vehicles specially equipped to travel over rough terrain and reach the fire with enough water, pumps and equipment to fight a brush fire, returning when empty to the tanker to refill with water. Fire engines can be used to fight fires along roads and to protect buildings, but brush trucks are far more useful for reaching fires in fields and forests.
- e. **Utility Vehicles.** Every company has at least one utility vehicle. These all-purpose pickup trucks and SUVs handle many different fire, rescue and EMS tasks. The utility vehicles get additional responders to fire, accident and EMS scenes to provide critical manpower. For EMS they are often licensed by OEMS as first response vehicles and used by EMTs to get to the scene and start patient care until an ambulance arrives. The trucks are often fitted with snow plows to clear snow-covered lanes and roads so that ambulances can reach patients and fire engines can reach fires. Emergencies often happen before VDOT has cleared the roads.
- f. **Ambulances.** Each EMS company has at least one ambulance and the higher-volume companies (Amissville, Washington and Sperryville Rescue) each have two ALS ambulances. The other three EMS companies have BLS ambulances. A critic might ask why any company needs more than one. The answer is three-fold: multiple calls within a 2-hour window are surprisingly frequent (a single transport to the ER routinely ties up the ambulance and crew for 2 to 3 hours) and a second ambulance is needed for calls occurring during that time window; accidents often involve two patients; and the second ambulance is needed when the first ambulance is out-of-service for repairs or maintenance. Most of the ambulances in the County have been purchased with grants covering 50 to 80 percent of the initial cost, usually from the State Rescue Squad Assistance Fund.
- g. **Specialty Equipment.** In addition to the above, a few pieces of specialty equipment are available and needed to handle particular emergencies.
  - i. **Tower.** Sperryville Fire has a 90-foot tower truck used to fight fires in commercial structures where extinguishing the fire often requires being able to get up over the fire and fight it from the top. Having the tower means the County

meets specific ISO requirements. The tower is appropriately located in the part of the County where most of the large commercial and public buildings are found (high school, elementary school, old Sperryville and Washington school buildings, Farmer’s Cooperative, Court House and County buildings). It was also deployed to Madison County for a water rescue.

- ii. **RTVs.** Sperryville Fire and Amissville Fire and Rescue each have a rugged terrain vehicle (RTV) for use in reaching patients or fires in inaccessible areas unreachable with ambulances, brush trucks or utilities. They can carry small scale brush firefighting equipment and special “stokes” stretchers to bring patients out to waiting ambulances. Their location at each end of the County means they can be deployed to any area of the County without undue delay.
- iii. **Special Emergency Response Vehicles (SERV).** Castleton and Chester Gap each have a military type heavy duty truck called Special Emergency Response Vehicle to mitigate particular emergencies in their areas. Flooding of low-lying roads is a common problem in Castleton’s area and their SERV-5 can ford up to 48 inches of water to perform rescues. It is also outfitted with a snow plow and brush fire suppression equipment to help them reach EMS and brush fire emergencies. Chester Gap is particularly prone to snow and winter storms and their SERV-9 helps handle those emergencies in addition to future firefighting capability.

**Figure 2.4: Apparatus by Type and by Company**

	WVF&R Co. 1	SVFD Co. 2	AVF&R Co. 3	FHVFD Co. 4	CCVFC Co. 5	SVRS Co. 7	CGVFD Co. 9
<b>APPARATUS</b>							
Attack	1	1	1				1
Class A Pumper (Fire Engine)	1	1		1	1		1
Rescue Engine		1	1				1
Tanker	1	1	1		1		1
Brush Truck	1	2SP	1	1	1SP		1
Utility Vehicles	1SP	1	2	1	2	1	2
Ambulances	2		2	2	1	2	1
<b>Specialty Equipment</b>							
Tower		1					
RTV		1	1				
Special Response (SERV)					1SP		1SP

SP=Equipped as snow plow

## **Apparatus Replacement**

Information on the age and date the companies expect to replace their apparatus is provided in Figure 2.5. The table shows that 20 out of the 50 pieces of apparatus are fifteen or more years old and most will need to be replaced during the next few years. That cost will be very substantial, but is difficult to estimate for several reasons. Many of the companies have been purchasing used fire apparatus in good condition. They are often able to find equipment suited to their needs that has been little used and in excellent condition. Some apparatus like the two SERV trucks are likely to be used far beyond normal replacement times. At least up to this point the Virginia Rescue Squad Assistance Fund has provided at least 50 percent funding for ambulances needing to be replaced.

### Figure 2.5: Apparatus Replacement Schedule

Fire and Rescue Apparatus Replacement Schedule						
Apparatus	Function	Make	Year	Estimated Cost	New/Used	Year Replace
<b>Washington, Co 1</b>						
Engine 1	Engine		1996	\$ 750,000	New	2030
Tanker 1	Tanker		2007	\$ 850,000	New	2040
Ambulance 1B	Ambulance	Chev	2006	\$ 270,000	New	2021
Ambulance 1	Ambulance	Ford	2009	\$ 260,000	New	2020
Utility 1	Utility	Ford	2007	\$ 65,000	New	2035
Attack 1	Attack	Ford	2002	\$ 400,000	New	2025
Brush 1	Brush	Ford	2017	\$ 175,000	New	2037
<b>Sperryville Fire, Co 2</b>						
Attack 2	Attack	IH	2011	TBD	TBD	TBD
Engine 2	Eng/Tank	Spartan	2006	TBD	TBD	TBD
Rescue Engine 2	Rescue	Pierce	1995	\$ 750,000	New	2025
Tower 2	Tower	Spartan	1999	TBD	TBD	TBD
Brush 2	Brush	Ford	1983	\$ 100,000	New	2021
Brush 2-1 W/Plow	Brush	Ford	2003	\$ 100,000	New	2028
Utility 2	Utility	Ford	2010	\$ 45,000	New	2026
RTV 2	RTV	Kawasaki	2010	\$ 12,000	New	2028
<b>Amissville, Co 3</b>						
Ambulance 3	Ambulance	Ford	2015	\$ 350,000	New	2031
Ambulance 3B	Ambulance	Ford	2006	\$ 285,000	New	2020
Utility 3B/Response	Utility	Ford	2015	\$ 75,000	New	2030
Utility 3	Utility	Ford	2000	\$ 75,000	New	2020
Attack 3	Attack	IH/Pierce	2005	\$ 250,000	New	2024
Brush 3	Brush	Ford	1995	\$ 250,000	New	2019
Rescue Engine 3	Rescue	KME	2011	\$ 800,000	New	2031
Tanker 3	Tanker	FL	2002	\$ 500,000	New	2021
RTV 3	RTV		2007	\$ 45,000	New	2026
Trailer for RTV	Trailer		2011	\$ 10,000	New	2026
Air 3	Air 3 Trailer	Wells Car	2005	\$ 50,000	New	2025
<b>Flint Hill, Co 4</b>						
Wagon 4	Engine	Smeal	2006	\$ 550,000	New	2030
Ambulance 4B	Ambulance	Ford	2011	\$ 265,000	New	2040
Ambulance 4	Ambulance	Ford	1996	\$ 265,000	New	2025
Brush 4	Brush	Ford	1999	\$ 126,000	New	2025
Utility 4	Utility	Ford	2009	\$ 100,000	New	2040
Tanker 4	Tanker	TBD	2020	\$ 410,000	New	2050
<b>Castleton, Co 5</b>						
Ambulance 5	A5	Ford	2016	\$ 280,000	New	2030
Utility 5B (EMS Response)	U5B	Chev	2008	\$ 45,000	New	2026
Utility 5	U5	Chev	2008	\$ 45,000	New	2027
Brush 5	B5	Chev	2008	\$ 85,000	New	2029
SERV 5	SERV 5	Mil.	1995	TBD	TBD	TBD
Engine 5	Engine	Freight	2003	\$ 200,000	Used	2028
Tanker 5	Tanker	Freight	1998	\$ 175,000	Used	2026
<b>Sperryville Rescue, Co 7</b>						
Ambulance 7	Ambulance	Ford	2001	\$ 285,000	New	2020
Ambulance 7B	Ambulance	Chev	2013		New	
Utility 7	Utility	Chev	2009	\$ 50,000	New	2025
<b>Chester Gap, Co 9</b>						
Engine 9	Engine	Seagrave	1997	\$ 150,000	Used	2027
Rescue Eng 9	Rescue	Seagrave	1992	\$ 200,000	Used	2022
Attack 9	Attack	IH	1993	\$ 145,000	Used	2024
Tanker 9	Tanker	Kenworth	2016	\$ 500,000	New	2026
Brush 9	Brush	Chev	2013	\$ 125,000	New	2043
Utility 9	Utility	Ford	2010	\$ 75,000	New	2020
Ambulance 9	Ambulance	Dodge	2017	\$ 280,000	New	2027
Command 9	Utility	Chev	2007	\$ 80,000	New	2025
Utility 9B	Utility	Ford	1995	\$ 60,000	New	2020
SERV 9	Brush/Attack	S&S	2003	TBD	TBD	TBD

In summary, our apparatus is generally serving us well. We have appropriate equipment and it is located in a reasonable manner around the County. The majority of the cost of the apparatus was paid for through grants and company fundraising. However, grants for fire equipment have largely disappeared. Much of the apparatus is older and will need to be replaced on a regular schedule. This replacement will require considerable financial resources.

### **Emergency Communications**

The County and F&R is currently implementing a significant update of our dispatch, paging and emergency 800 radio systems. Dispatch is implementing a new GPS based addressing system and dispatch system. Paging will be moving to a new xxx based system transmitting from the radio tower located in Washington with a repeater located on the new Sperryville cell tower and perhaps other future locations. The Emergency 800 radio system is undergoing a major upgrade to bring us into compliance with modern standards. This upgrade may improve coverage somewhat, but we will still be reliant on transmission towers located in neighboring counties. Given our mountainous terrain, the result is dead spots in a number of areas of the county.

### **III. WHERE WE WANT TO BE IN FIVE YEARS**

The citizens of Rappahannock deserve responsive and high-quality emergency medical and fire services. Our goal for the future is to provide responsive and high quality services through a healthy volunteer system supplemented as necessary with paid providers. Delivering these services requires adequate staffing and apparatus to provide 24/7 excellent service. As detailed earlier, we have been successfully providing responsive and quality service. While the Association remains committed to a volunteer system, we acknowledge the need for paid staff to supplement the volunteers. A key consideration must be providing fire and EMS services in a cost-effective manner. All-volunteer staffing has minimized cost up to this point and saved the County's citizens from a substantially larger tax burden.

#### **Response Performance Objective**

Our five year out response objective is to have an appropriately staffed ambulance on scene for EMS calls and appropriate fire apparatus on scene for fire calls in less than 20 minutes 95

percent of the time. We have been able to exceed this objective for the past four years and think it is a reasonable objective for the future. We note that this objective sets a higher bar than current County response standards. We believe it is an appropriate objective and will continue to serve our citizens well.

### **Staffing Objective**

As indicated above our staffing objective is to maintain a healthy volunteer system supplemented as needed with paid providers. The 2019 Strategic Plan said our objective was to maintain our volunteers with no decrease in our EMS and firefighter ranks. Unfortunately, we were not able to achieve that goal. The number of active interior firefighters dropped by two, our active EMTs dropped by 4, and our number of active Medics dropped by 1. Up to this point the County has not had an official ‘standard of care’ for EMS. At the most recent County Public Safety Committee meeting, a resolution was adopted stating the goal is to have Medics available 24/7 to handle life threatening medical emergencies.

As stated earlier, the fire rescue standard is to have enough active interior fire fighters and other fire personnel to enter a burning building and rescue the occupants while performing safely. We currently have 26 active qualified interior firefighters which is 4 less than our stated goal in the 2019 Plan. The EMS standard is to be able to handle two simultaneous events with appropriately certified personnel and apparatus. We now have 13 active EMTs, 11 less than our 2019 stated goal of 24. We now have 6 Medics and two EMT-As, less than our stated 2019 goal of 10. Furthermore, the goal is to have these firefighters and EMS providers reasonably distributed across F&R companies to provide responsive service.

### **Apparatus Objective**

The overall goal is to have appropriate well-maintained apparatus located in the County in a manner that supports quick response to handle an emergency in any part of the County. This means specialty apparatus should be strategically located. As indicated in the earlier section on apparatus, the current stock of apparatus appears to be serving us well. Of course, the apparatus is aging and will have to be replaced as it nears the end of its useful life. Also, conditions and standards will change and the Association and companies will have to adjust appropriately. In as far as possible, future fire suppression apparatus purchases should be NFPA compliant.

The Association’s Chiefs Committee will evaluate future apparatus purchases to ensure the purchases support our long-term capability goals and are cost effective. The Chiefs should pay particular attention to proposed purchases that add a new type of apparatus rather than replacing a piece of apparatus that is at the end of its useful life.

## IV. KEY CHALLENGES IN GETTING FROM WHERE WE ARE TO OUR FIVE-YEAR PROJECTED GOALS

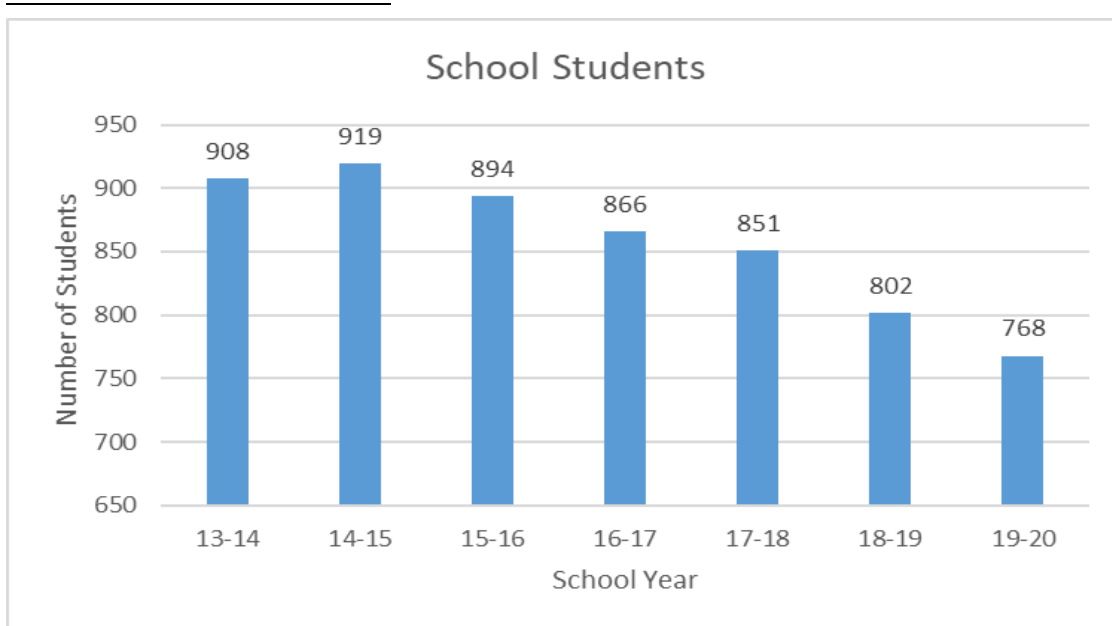
### Unfavorable demographics is our reality

The best source of volunteer firefighters and EMTs/Medics is generally young and middle age adults. Rappahannock doesn't have many of them.

The County's attraction as a retirement destination for the past generation or so has produced a disproportionate number of older people. This is coupled with relatively few families with children and young adults. The small number of younger families likely is as a consequence of the County's shortage of affordable housing and lack of jobs. The result is that Rappahannock has a high percentage of individuals age 65 and older, at 26.5% one of the highest in Virginia. (Bureau, 2018) This unfavorable demographic composition makes for a small pool of potential volunteers to recruit from. This unfavorable demographic is reinforced by our declining school age population. In the 2007-8 school-year there were 941 K-12 students enrolled in our public schools. By 2019-20 the number had dropped to 768 students, a decline of 173 students as shown in Figure 4.1.<sup>1</sup> The declining number of students translates into a shrinking source of future younger volunteers and may indicate fewer in the age 30 to 50 group.

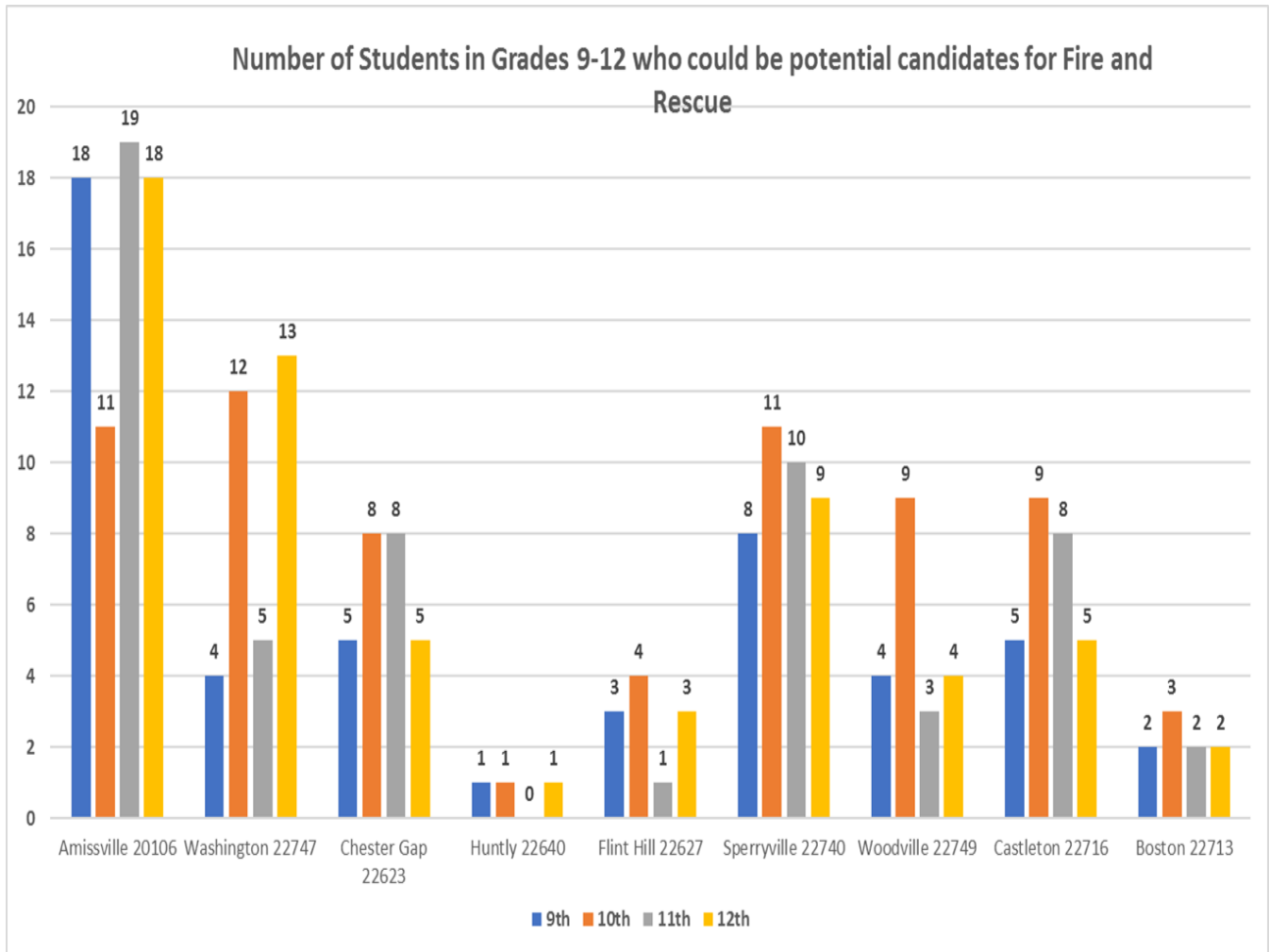
Furthermore, Figure 4.2 shows students are not distributed uniformly across the County. Some companies have more students in their vicinity than others. The areas with few students face an even more difficult task of recruiting young volunteers.

**FIGURE 4.1: Trend in Rappahannock Public School Enrollment**





**FIGURE 4.2: Distribution of Students Across County**



**The critical challenge facing F&R in the County is the shortage of volunteers**

Dealing with the reality of a small volunteer pool must be a primary focus of this Plan. The shortage is acute for both fire and EMS, but is particularly acute for interior firefighters and ALS EMS responders. Interior firefighters must have the physical strength, stamina, and training to enter a burning building with full gear and rescue trapped persons. EMS providers certified at the medic level (EMT intermediates and paramedics) have a least one year of demanding training beyond the basic EMT level and are a scarce commodity.

Many younger active retirees have been recruited as drivers and EMTs, but retirees generally are not capable of handling the demanding physical challenges of being an interior firefighter. The small potential volunteer pool for recruitment means we need to be particularly effective in tapping the available volunteers in order to make our all-volunteer system work as long as feasible. We are helped by Rappahannock's strong tradition of volunteer service.

### **Adding paid staff is necessary, but expensive given Rappahannock's Small Tax Base**

All of the counties surrounding Rappahannock have dealt with a diminishing number of volunteers by supplementing their volunteers with paid staff. Rappahannock needs to be ready to add paid staff to supplement the volunteers in the near-term.

The bigger problem is that volunteer effort virtually always drops off with the addition of paid staff and more paid staff are then needed. This has been the experience of most of the counties who have added paid staff. Since the County only gets an average of about 3 calls per day, one might think that a single paid crew could handle the County's needs. Doing this would result in a dramatic decrease in service for two reasons. First, an EMS call often takes more than two hours to complete (fire calls can take many hours). It is surprisingly often that we get two or three calls within a two-hour window.<sup>iv</sup> Second, it can take nearly a half hour to get from Washington, VA, a central location in the County to the most distant residences.<sup>v</sup>

Therefore, it is critical that we preserve a healthy volunteer system as we supplement the volunteers with paid staff. It is the volunteers who must answer the second and third calls. Going to a predominately paid staff would pose a large financial burden on County residents.

### **Communications Challenges**

Companies and citizens have various communications challenges that impact emergency services. Fire and rescue companies are challenged by incomplete coverage of the emergency 800 radio systems related in part to dependence on communications towers in neighboring counties. Citizen access to emergency services is inhibited by unreliable landline services and limited cellular service and broadband coverage.

## **V. HOW WE ARE GOING TO ADDRESS THE CHALLENGES**

In thinking about dealing with the challenges laid out above, it is important to realize we are in a period of transition. Supplementing our volunteers with some paid staff is inevitable. Transitions are usually difficult and uncertain. Later in this section we recommend a modest addition of paid staff during FY 21. The rationale is to allow us to learn how to effectively integrate paid staff while our volunteer system is still strong.

The remainder of this section discusses our three priorities for dealing with the challenges:

- Keep our volunteer F&R system strong while maintaining high standards of service to our community. This minimizes the urgency and level of paid EMS providers needed.
- Move forward with detailed planning for adding needed paid staff. This needs to proceed with some urgency with a goal of having a reasonably complete plan ready in six months.
- Continue close monitoring of our system performance with particular attention to ALS response. The objective is to identify how quickly we need to add paid providers and the critical gaps that need to be filled.

The intent of this Strategic Plan document is to provide a broad framework that we can build upon and add specifics over time. It needs to be a living document that is updated as needed reflecting changing conditions and learning from experience.

### **Keep Volunteers With Strong Recruitment and Retention Efforts**

The Association is committed to keeping our volunteer F&R staffing as robust as possible by strengthening our companies' recruitment and retention success. To further that goal, we plan to pursue a number of avenues including the following:

- a. Organize a new Recruitment and Retention Committee within the County Fire and Rescue Association to identify promising actions and coordinate efforts across the companies and with the County.
- b. Seek help from organizations such as VAVRS, Virginia Office of Emergency Medical Services, Virginia Department of Fire Programs, the PATH Foundation to train people from our companies on how to more effectively recruit and retain volunteers.
- c. Investigate new incentives that might be more effective in encouraging younger adults to volunteer.
- d. Set up a more effective single web-based County-wide entry point where potential volunteers can apply and have their application forwarded to the appropriate company for follow-up.

### **Encourage Individual Companies to Strengthen Their Leadership**

The F&R companies will be encouraged to develop their own plans for anticipating and adequately preparing for succession in leadership and ongoing turnover in their fire and EMS responders. Company leaders and directors need to be identifying potential future leaders and growing them by giving them leadership experience and training through increasing levels of responsibility. Filling the gap caused by ongoing turnover needs to be addressed by thoughtful and effective recruitment.

## Supplementing Volunteers with Paid ALS Providers as Needed

The County has a fragile volunteer EMS system that has continued to serve the County's citizens long after all the surrounding counties have hired paid EMS providers. The volunteers have continued to perform well as documented by the 2019 response studies showing ambulances with appropriate level crews were on scene in 19 minutes or less of being dispatched 98 percent of the time.

However, looking forward to FY 21, we have grave concerns that the volunteer EMS providers will not be able to provide 24/7 coverage without being supplemented with paid providers. This concern is particularly acute for Advanced Life Support (ALS) medics who are trained to provide care for victims of heart attacks and other life threatening conditions. There are three ALS companies in the County located in Amissville, Washington and Sperryville. Given their central location and availability of highly dedicated medics, Washington has been the ALS backup for much of the County. One of their medics has moved away and the other is beyond normal retirement age. Most of the other medics in the County work full-time and are therefore often not available. The warning signs were evident in the most recent response review when five of the ten delayed responses were for life threatening conditions calling for ALS care and two of them took more than 24 minutes to get a medic unit on scene. The later section on Options for Supplementing Volunteers with Paid Staff lays out our plan.

## Identifying the Trigger for Adding Paid Providers

In spite of our best efforts to recruit and retain volunteers and keep our all-volunteer fire and rescue, we will reach the point when our volunteer force is not adequate to provide an acceptable level of services for the County's citizens. In order to move quickly if we reach that point where our volunteers are unable to provide the necessary services, we need to identify the "trigger point" when in concert with the County, the plan for hiring paid providers to supplement the volunteers is implemented. Note that part of the point of having a plan is to keep the support from paid staff to the minimum level needed to maintain an acceptable level of service to the community.

The Chiefs should plan to meet at least every other month with a short discussion of the trigger point on the agenda for each meeting. The Chiefs agree that any one of the following can be considered as a trigger point:

- a. When a majority of the Chiefs determine the volunteers need paid help to provide acceptable EMS response

- b. When two adjacent companies have their first due response rates with appropriately staffed EMS or fire units drop below 90%
- c. When the County response study shows it takes more than 19 minutes to get an ambulance or engine on scene more than 15% of the time.

## How Other Counties have dealt with the Problem

As called for in the 2019 Fire and Rescue Strategic Plan, a committee was appointed consisting of three highly experienced Rappahannock Chiefs, the County Administrator, the County Emergency Services Coordinator and Chaired by the President of the Association. This Committee met with representatives of six counties with the objective of seeing what had worked best to retain a viable volunteer system and what didn't work.

The most relevant lessons learned were:

- Volunteers can be maintained, but a majority of the counties made mistakes, such as failing to give them meaningful and satisfying roles, that over time drove them away.
- Of the six, only two counties appear to have maintained a viable volunteer system that still handles a significant portion of their EMS calls alongside paid responders.
- Key factors that support maintaining a viable volunteer EMS system are:
  - Volunteer leadership are involved in the hiring and management of the paid providers
  - Volunteers have an important and meaningful EMS role
  - Volunteers are respected, supported and treated well
  - Paid responders have personalities that support the volunteers

## Options for Supplementing Volunteers with Paid Providers

Three options are presented for consideration by the County. These options range from a modest paid supplement to the volunteers to a 24/7/365 paid medic crew. In the near-term a modest supplement to the volunteers is probably sufficient.

### **Option 1: Paid ALS provider responding in a chase vehicle during nighttime hours**

The ALS provider (EMT Intermediate or paramedic) would respond in an ALS equipped "chase" vehicle meeting a volunteer-staffed ambulance on scene. The medic from the chase

vehicle with their ALS meds and equipment would upgrade the BLS response to a medic response.

### **Option 2: Paid ALS provider responding in a chase vehicle 24/7/365**

The ALS provider would respond in an ALS equipped vehicle as in option 1. The difference is that the ALS chase vehicle would be staffed 24 hours, seven days a week and 365 days per year.

### **Option 3: Paid ALS staffed ambulance available 24/7/365**

This option provides an ALS staffed and equipped ambulance available 24 hours a day ready to respond immediately from a central location. Volunteer staffed ambulances would still be needed to handle calls when the paid unit is tied up on a previous call, or an accident results in multiple patients. And, the local all-volunteer ambulances might be able to respond to the scene more quickly for incidents in the more distant parts of the County.

### **Comments on the Options**

#### **Options 1 and 2: Paid ALS provider responding in a chase vehicle**

This more modest supplement has three positive virtues: First,

1. It provides assurance that an ALS provider will be available during the nighttime to handle serious calls.
2. It helps keep the volunteer system viable as the volunteers have a critical role in responding in the BLS ambulance.
3. It costs the tax payers substantially less than the third option.

There is a concern that the availability of paid ALS providers would inhibit responses by volunteer ALS providers

#### **Option 3: Paid ALS staffed ambulance available 24/7/365**

This option provides added assurance that a fully staffed ALS ambulance will be available 24/7/365. This option continues to rely on our volunteers to handle calls when the paid staff ambulance is tied up on a previous call or there are multiple patients.

A concern with this option is the experience in other localities. They report that the volunteers cut back once paid-staff are available to handle most of the calls. The result is that volunteers fade away over time and aren't available when needed. The result is that counties have been forced to hire additional paid-staff.

## Recommendations for How to Add Paid ALS Providers

Alternatives for dealing with the anticipated shortfall next year in volunteer ALS providers were evaluated and the Association agreed on the following recommendations:

1. Recommend the Chiefs Committee test plans for more effectively deploying our volunteer resources to cover a larger area more effectively during the nighttime. For example, this could be assigning a volunteer crew to be on duty for all or a portion of the County during the night. The objective is to both reduce the strain on the volunteers as well as reduce the number of delayed nighttime responses.
2. Recommend the Chiefs Committee arrange to train more Advanced EMTs to handle less severe ALS calls.
3. Recommend the County include funding in the FY 2021 budget for supplementing the volunteers with paid staff. This is in accord with an earlier Chiefs Committee action where the Chiefs voted unanimously to request FY 21 funding for paid help. The request is for a 2 cent increase in the Fire Levy to cover staff and associated costs.<sup>2</sup>
4. Recommend the leadership and Board of Washington Volunteer Fire and Rescue Company consider their willingness to host future paid staff and negotiate appropriate arrangements with the County regarding leases and other conditions.<sup>vi3</sup>The importance of a central County location makes Washington an obvious first choice, if suitable arrangements can be worked out.
5. Recommend the County negotiate suitable and cost effective arrangements with WVFR, or an alternate volunteer company, to host the County staff and equipment. And, develop a plan for how the paid staff would be hired, scheduled, and supervised.

Work on each of these recommendations needs to be underway as soon as possible. Recommendations number four and five should be accomplished so that paid providers can be hired before the end of calendar 2020 if needed.

The Chiefs also have agreed that when we reach the trigger point, the paid staff need to be both qualified firefighters and EMTs as both fire and EMS are short of volunteers.

The County should be anticipating the future cost of fire and rescue in their budget planning.

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<sup>2</sup> We expect support for the volunteers in the form of a paid medic responding in a chase vehicle to meet the volunteer ambulance on scene will be sufficient for FY 21. One good source of cost estimates is the experience of other counties. Highland County's budget for a paid crew covering about half time is \$350,000. Rappahannock's cost for staffing a chase vehicle is likely to be in that neighborhood. The cost of salaries and supplies probably can be covered by a two cent increase in the Fire Levy.

<sup>3</sup> Housing paid staff would require facilities that do not currently exist at WVFR including a bunk room, lounge and kitchen. The facilities would need to meet OSHA regulations. Other issues that need to be worked out include is the chase vehicle County vehicle or are arrangements made to use a volunteer vehicle. In any case certain ALS equipment such as LifePak would need to be obtained to outfit the chase vehicle.

## Determining the most effective structure

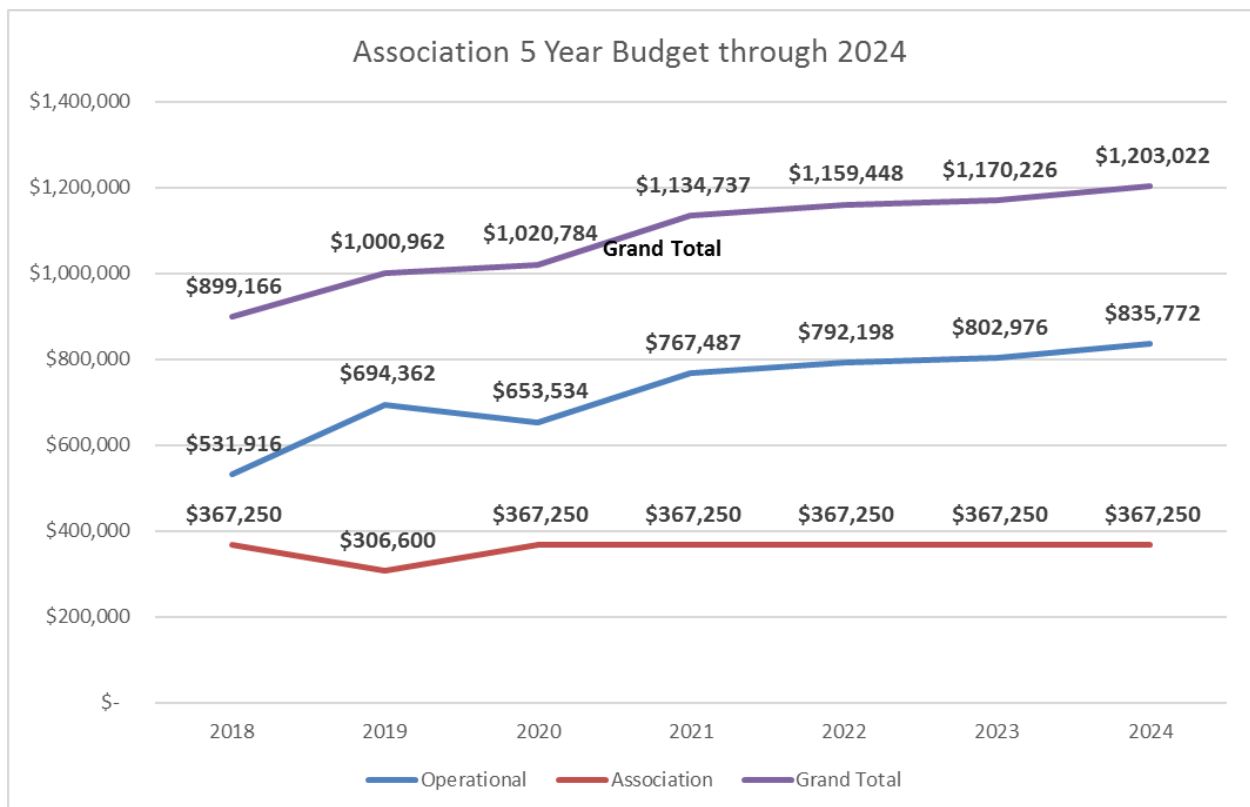
We observe that many counties including some of our neighbors have stumbled badly when introducing paid staff. Those who didn't carefully consider the effects on volunteers of how paid staff and volunteers are structured, and the nature of the hires in terms of personalities and experience; quickly lost a lot of their volunteer resources.

## VI. FIVE YEAR OPERATIONAL AND CAPITAL BUDGET

The companies have submitted Chart of Account budgets with a 5 Year projection which have been forwarded to the County through the Fire Levy Board as specified in the Services Agreement. Below is a Summary for the current and projected 5 years for the Company Operational expenses and the Association with a Grand total for Fire Levy Budget considerations;

Note: Association budget assumes the \$80K Capital Improvement is included.

**Figure 6.1: Actual Budget for 19/20 and Five-Year Projection**





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<sup>i</sup> Fire and EMS Response Review: 2019 Response Summary for January through June, and for July through December

<sup>ii</sup> While we have several active responders over these ages, they are unlikely to be active for long.

<sup>iii</sup> Dispatch records for March 2, 2018

<sup>iv</sup> For example, Co. 7 was toned for an EMS incident at 9:09, another at 9:38 and another at 10:25 on March 23, 2019: Dispatch records

<sup>v</sup> According to Google it takes 27 minutes to get from Washington, VA to 12221 Grindstone Road in Boston