

Sussex County

FIRE & EMS STUDY

In consultation with the Virginia Department of Fire Programs and the Virginia Department of Health's Office of Emergency Medical Services.



Table of Contents

STUDY TEAM.....	<u>2</u>
ACKNOWLEDGMENT	<u>2</u>
EXECUTIVE SUMMARY	<u>3</u>
METHODOLOGY	<u>5</u>
PHASE I: INITIATE PROJECT.....	5
PHASE II: OBTAIN STAKEHOLDER INPUT	5
PHASE III: PREPARE ANALYSES AND DEVELOP CORE STRATEGIES.....	6
PHASE IV: PREPARE FINAL REPORT	6
COUNTY INFORMATION	<u>7</u>
FINDINGS AND RECOMMENDATIONS	<u>8</u>
I. DEPT. OF EMERGENCY SERVICES	8
II. WAVERLY RESCUE SQUAD	10
III. FULL-TIME/PART-TIME STAFF.....	11
IV. ADOPT ONE EMS LICENSE.....	12
V. FIRE AND EMS RISK ASSESSMENT.....	12
VI. DEVELOPMENT OF SOPs/SOGs.....	14
VII. BUDGET RECOMMENDATIONS	15
VIII. DEVELOPMENT OF COUNTY-WIDE TRAINING STANDARDS	16
IX. CROSS-TRAIN FIRE AND EMS	17
X. INCREASE RECRUITMENT AND RETENTION.....	18
XI. COMMUNITY RISK REDUCTION PLANNING.....	19
XII. CANCER PREVENTION	21
XIII. COMMUNICATIONS	22
REFERENCES.....	<u>23</u>
APPENDIXES	<u>25</u>
APPENDIX A: Resolution of the Sussex County Board of Supervisors	
APPENDIX B: Scope of Study Agreement	

STUDY TEAM MEMBERS

Virginia Fire Services Board

Walter Bailey

VA Fire Services Council

Virginia Department of Health – Office of Emergency Medical Services

Chris Vernovai

Emergency Medical Services Systems Planner

Jimmy Burch

EMS Program Representative Supervisor

Virginia Department of Fire Programs

Ken Brown

Coordinator of Community Risk Reduction

Will Merritt

Marketing and Communications Manager

Spencer Willett

Government Affairs Manager

The group above is herein after referred to as “Study Team.”

ACKNOWLEDGMENT

The Virginia Fire Services Board would like to extend thanks to the following organizations and individuals for their contribution to this study:

Sussex County Board of Supervisors

Stony Creek Volunteer Fire Dept.

Richard Douglas, County Administrator

Sussex Courthouse Volunteer Fire Dept.

Reid Foster, Public Safety Coordinator

Wakefield Volunteer Fire Dept.

Nick Sheffield, Chief of Emergency Services

Waverly Volunteer Fire Dept.

Thomas Hicks, Interim Public Safety
Coordinator

Stony Creek Rescue Squad

Jarratt Volunteer Fire Dept.

Waverly Rescue Squad

EXECUTIVE SUMMARY

This report documents the findings and recommendations for the Sussex County Fire and Emergency Medical Services (EMS) Study. This study and the information contained herein should not be construed as legal advice or as binding recommendations for Sussex County. This report provides guidance to the Sussex County Board of Supervisors, its fire and EMS organizations, and other stakeholders in the community regarding public safety. Sussex County should strive to meet and/or exceed the recommendations contained in this report to enhance the overall quality of fire-rescue delivered to citizens and visitors of Sussex County.

This study was requested by a resolution of the Sussex County Board of Supervisors to analyze five working areas which include:

- Organization
- Budget and Administration
- Training
- Delivery of Services/staffing
- Fleet Design and Management (Equipment/Apparatus)

In addition, community risk reduction was included by members of the study team because it encompasses all the above areas.

The study was conducted by the Virginia Fire Services Board, in partnership with the Virginia Department of Fire Programs and the Virginia Department of Health's Office of Emergency Medical Services. The above referenced working areas served as a guide for the study team to identify issues, evaluate current fire-rescue operations, and make recommendations to improve Sussex County fire and rescue services.

Sussex County recently created the Chief of Emergency Services position to oversee fire and EMS. This position replaced the Public Safety Coordinator. This report makes recommendations that should be carried out by the Chief of Emergency Services with the support of the County Administrator and the Sussex County Board of Supervisors. Sussex County should establish and codify the Sussex County Department of Emergency Services, which should be led by the Chief of Emergency Services and include the five volunteer fire departments, two rescue squads, contract staff and future career staff. This department should establish standard operating procedures and guidelines, coordinate recruitment and retention, manage the county's emergency services budget, and ensure training is provided to both career and volunteer personnel.

As part of the creation of the Department of Emergency Services, each public safety agency should sign a memorandum of understanding that outlines expectations and responsibilities for responding to emergencies. The Department of Emergency Services should also oversee one county EMS license from the Virginia Department of Health that all volunteer agencies fall under.

The Chief of Emergency Services should establish county-wide fire-EMS training standards, explore expanding training opportunities, and hire full-time or part-time staff to support volunteers in the delivery of emergency services. Training could include establishing a

relationship with Sussex County Public Schools and providing county level training on a monthly or quarterly basis. As a result of a declining number of volunteer EMS providers, Sussex County should hire part-time or full-time staff that work directly for the Department of Emergency Services to provide staffing on ambulances when volunteers are unavailable. These personnel should be cross trained as firefighters to offer immediate support to the volunteer fire departments when requested.

It is in the best interests of Sussex County to establish a working relationship with Waverly Rescue Squad. In addition, it is in the best interests of Waverly Rescue Squad to work with the Chief of Emergency Services to begin providing more services to the citizens of Sussex County. The equipment and facilities owned by WRS and Stony Creek Rescue Squad could be utilized by county staff to provide EMS when volunteers are not available. The Chief of Emergency Services should work with both squads to expand recruitment and training opportunities to create more volunteer providers or drivers.

The Chief of Emergency Services must examine the current practices and risks in Sussex County to better provide services. The study team recommends that the Chief of Emergency Services complete a community risk assessment to examine possible capital projects such as fleet replacement needs. This should lead to the development of a capital improvement plan to replace apparatus and improve public safety facilities in the county. As a component of the risk assessment, the Chief of Emergency Services should research the use of cooperative purchasing and centralized purchasing.

Other important recommendations contained in this report include efforts to reduce cancer in firefighters, community paramedicine and encouraging the reporting of fires or emergencies to VFIRS and NFIRS.

METHODOLOGY

The following is an overview of the study process:

PHASE I: INITIATE PROJECT

Objectives: Initiation of Study

To initiate the study, the Sussex County Administrator sent a Resolution, on behalf of the Sussex County Board of Supervisors, to the Virginia Fire Services Board requesting a complete and thorough review of the fire and EMS system in the county (Reference Appendix A).

The county requested the following areas of concentration:

- Organization
- Budget and Administration
- Training
- Delivery of Services/staffing
- Fleet Design and Management (Equipment/Apparatus)

A study team was convened and the study team began by reviewing county-submitted data including the self-assessment questionnaire completed by the county. The team also began collecting and reviewing existing data, memorandums of understanding and relevant policies and procedures.

As part of Phase I, the study team met with leadership from Sussex County to establish working relationships, make logistical arrangements, and determine communication lines. During these meetings, the study team discussed the objectives of the project and identified any issues and concerns central to the study.

PHASE II: OBTAIN STAKEHOLDER INPUT

Objectives: Conduct Leadership Interviews & Capture Input from the Departments

The second phase of the study consisted of leadership interviews and department evaluations. The expectations were as follows:

- Identify opinions of department officials concerning the operations and performance of their department and county coordination;
- Identify issues and concerns of officials regarding fire and rescue services;
- Identify perceived gaps in existing service levels and new priorities in mission; and,
- Identify strengths and weaknesses as perceived by departmental personnel.

The study team, in coordination with county leadership, developed a schedule of face-to-face interviews with the five independent fire departments to include: Jarratt, Stony Creek, Sussex Courthouse, Wakefield, and Waverly. The study team also conducted face-to-face interviews with rescue squads in Stony Creek and Waverly.

The study team met with leadership from Sussex County to include the Sussex County Administrator as well as the outgoing Sussex County Public Safety Coordinator. The study team also visited the Sussex County Sheriff's Office 911 Communications Center.

All interviews were conducted during an allotted timeframe and a considerable amount of information was collected. A public hearing was advertised by the county and held on February 27, 2023 to give the public an opportunity to share feedback with the study team regarding the Fire & EMS system in Sussex.

During the interviews and public hearing, the study team received information regarding volunteer staffing levels, service delivery, budget information, apparatus, relationships between contract providers and volunteers, and other information about the operation of each volunteer department. The discussion also provided an opportunity for each organization to share comments regarding service delivery of fire & EMS services in the county and possible areas for improvement.

PHASE III: PREPARE ANALYSES AND DEVELOP CORE STRATEGIES

Objectives: Evaluate Current Trends and Prepare a Report

The third phase of the study involved further investigation and understanding of the organizational structures, operations, limitations, achievements, and opportunities for improvement within the fire and EMS delivery system. The activities that supported this process consisted of additional requests for information not already obtained in Phase I and II of the work plan. Data requests, made in this phase of the study, attempt to address any issues that emerged from the interviews, and further evaluate implications of the operational issues cited. During this phase, the study team worked with incoming Chief of Emergency Services Nick Sheffield and Thomas Hicks, Interim Public Safety Director. Data obtained during the study process also assists the study team in identifying issues influencing the current levels of service.

After receiving and critically evaluating information from the interviews and all supporting materials, the study team began identifying the necessary and critical action steps to achieve effective and uniform service levels throughout the county.

PHASE IV: PREPARE FINAL REPORT

Objectives: Prepare and Present Final Report

The final phase of the study involved documenting the results of all previous tasks into a written report with critical components, such as an executive summary, methodology, background, and findings and recommendations. Once completed, a draft report was shared with the Sussex County Administrator to ensure the technical content in this report is accurate. Upon receiving corrections, the study team revised the draft report, as needed, to assist in the preparation and issuance of the final report.

COUNTY INFORMATION

Sussex County is a rural community located southeast of the City of Richmond, Virginia with a primarily agricultural economy. Natural resources in the county are plentiful, with 130 farms and over 250,000 acres of commercial forestry land.¹ The county was developed in 1754 from portions of Surry County, with original settlers arriving in the early 1600s from England.²

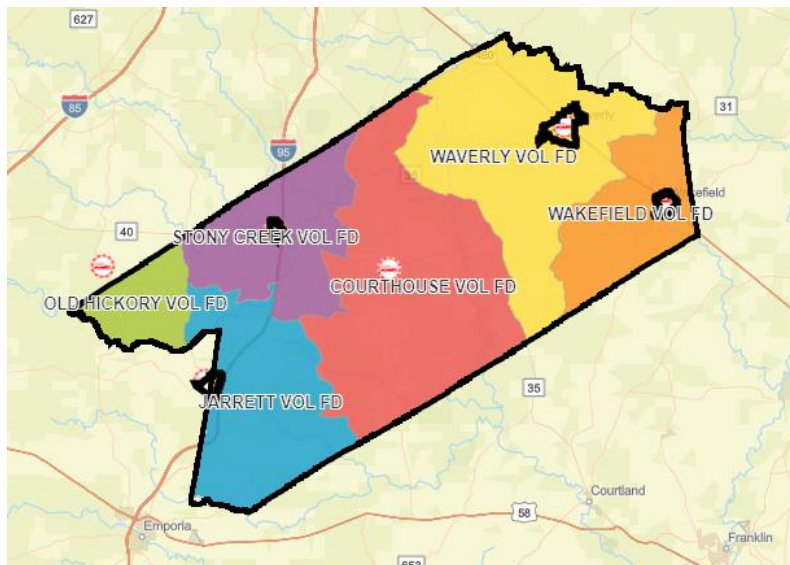
The county has 496 square miles of land, with 4 incorporated towns that include Wakefield, Waverly, Jarratt, and Stony Creek. Interstate 95 traverses the county and splits the county between Eastern and Western areas. Five counties border Sussex County including Dinwiddie, Prince George, Surry, Southampton, and Greenville.

The estimated population in Sussex County in 2021 was 10,763 people with a household income of \$56,968 and a total of 4,677 housing units.³ The majority of the county's citizens reside in the Eastern half of the County, near the Towns of Wakefield and Waverly.

The county operates under the guidance of the Board of Supervisors. Board members represent each of the six magisterial districts. In addition, there is one at-large member elected to break ties on the six-member Board of Supervisors. The County Administrator serves as the Chief Administrative Officer and executive for the county.

FIGURE 1: SUSSEX COUNTY EXISTING FIRE DISTRICTS

A snapshot of Sussex County GIS mapping software shows the location of each fire station in the county. EMS stations are not shown.



¹ "About Sussex County" *Sussex County, Virginia* (2023)

² "Sussex History" *Sussex County, Virginia* (2023)

³ "Sussex County, Virginia" *U.S Census Bureau* (2022)

FINDINGS AND RECOMMENDATIONS

The recommendations contained in this study are not a requirement for the county to implement. The recommendations are to be used as a guideline of potential solutions that will assist the county as it further develops its capabilities to provide fire and EMS services. The purpose of the study is to review weaknesses and strengths of Sussex County's current fire and EMS practices, providing recommendations to better serve the citizens and visitors of Sussex County.

Recommendations below refer to National Fire Protection Association (NFPA) standards, including NFPA 1720: Standard on Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments. According to chapter 1 of NFPA 1720, the standard defines "levels of service, deployment capabilities, and staffing levels for substantially volunteer fire departments. It contains minimum requirements for deploying fire suppression and EMS for service delivery, response capabilities and resources. It also contains requirements for managing resources and systems such as health and safety, incident management, training, communications, and pre-incident planning. It addresses the strategic and system issues involving the organization, operations, and deployment of a volunteer fire department."⁴

The National Fire Protection Association provides industry-wide best practices for fire and EMS service. Although the NFPA standards are considered best practices, the study team understands that not all NFPA standards are attainable in individual jurisdictions. Sussex County should strive to meet NFPA standards to provide best-in-class service to its citizens and visitors.

It is important to keep in mind who the Authority Having Jurisdiction (AHJ) is, which in this case could be the Sussex County Department of Emergency Services. In accordance with all NFPA codes the AHJ is "an organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure. (1720 -2020, 3.2.2)

I. CREATE A DEPARTMENT OF EMERGENCY SERVICES

Sussex County is experiencing significant strain providing emergency medical services to its citizens and visitors. Historically, volunteers from Stony Creek Rescue Squad and Waverly Rescue Squad provided EMS within Sussex County. Both organizations still have state of the art equipment, are licensed through the Commonwealth of Virginia, and are capable of providing EMS within Sussex County. Stony Creek Rescue Squad continues to provide volunteer staffing for the Western half of Sussex County.

Sussex County utilizes contract EMS providers to provide EMS coverage in addition to volunteer staffing during the day countywide, with contract staff being the sole providers in the Eastern half of the county. The ability of volunteer rescue squads to staff has decreased, resulting in the increased use of contract staff. Sussex County, and some volunteer organizations, have had difficulty with the contract providers and the level of service provided.

⁴ NFPA 1720, *Standard on Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments*, NFPA 2020

The foregoing is a recommendation authorized pursuant to Va. Code 9.1-203.A.4 and is not to be construed as legal advice or as a binding recommendation.

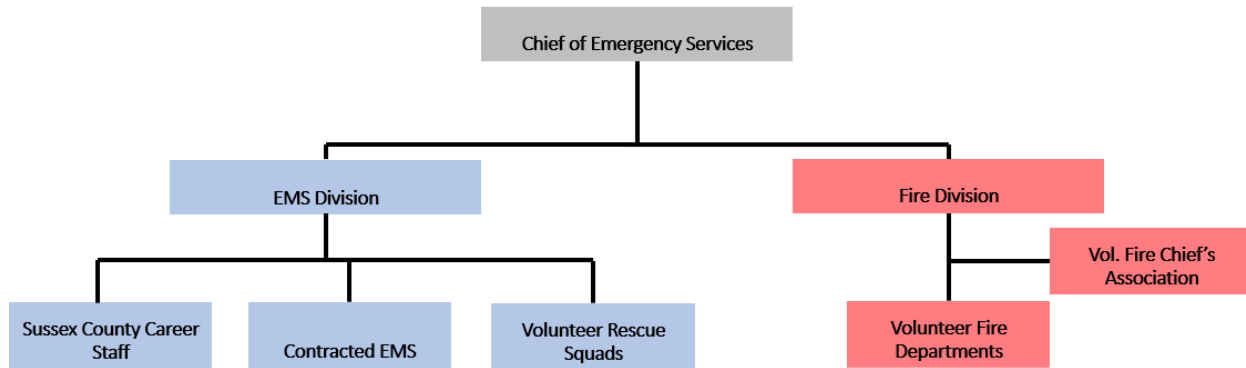
Considering the issues associated with previous contract coverage in Sussex County, and with a decline in volunteer membership at both Waverly and Stony Creek Rescue Squads', it is highly recommended that Sussex County create a Department of Emergency Services.

Recommendations:

1. Board of Supervisors should codify a Department of Emergency Services.
2. Board of Supervisors should identify the Chief of Emergency Services as the position responsible for the supervision and authority of the Department of Emergency Services.
 - a. This position should be codified through a local ordinance outlining expectations and responsibilities.
 - b. Administrative staff/support should be considered for the Chief of Emergency Services.
3. The Chief of Emergency Services should be responsible for providing training, oversee county funding for all fire and EMS operations, and for developing Standard Operating Procedures and Guidelines for all aspects of emergency operations.
4. The Chief of Emergency Services should create an EMS Division and a Fire Division.
 - a. The EMS Division should include future career staff, contract staff, and the two (2) volunteer rescue squads.
 - b. The Fire Division should consist of the five (5) volunteer fire departments.
5. The Chief of Emergency Services should provide oversight for Waverly Rescue Squad and Stony Creek Rescue Squad. Both squads should retain their own membership and equipment, with clear roles and expectation for both the EMS division and the squads outlined in standard operating procedures.
6. EMS Division career staff should staff ambulances when volunteer staffing is not adequate or available as determined by the Chief of Emergency Services.
7. The County should provide senior volunteer leadership with the tools and responsibility to properly manage the administrative activities of their agencies and assist the Department of Emergency Services.
8. The Department of Emergency Services should oversee the purchase of supplies and equipment.
9. The Chief of Emergency Services should continuously reassess staffing, both career and volunteer, and make appropriate modifications to ensure adequate coverage 24-7.
 - a. If volunteer coverage is unavailable during an allotted time, career or contract staff must be available to ensure adequate coverage.
10. The Department of Emergency Services should utilize the Virginia OEMS Standards of Excellence Program. The purpose of the Virginia Standards of Excellence program is to

identify and recognize EMS agencies that strive to operate above the standards and requirements of the Virginia EMS Regulations (12VAC5-31). The evaluation addresses several areas that collectively make up the operations of an EMS agency from several perspectives.⁵

FIGURE 2: SUSSEX COUNTY DEPARTMENT OF EMERGENCY SERVICES



II. DEVELOP A RELATIONSHIP WITH WAVERLY RESCUE SQUAD

The study team was provided a draft agreement between Waverly Rescue Squad and Sussex County to continue services, whether through volunteer providers or paid staff utilizing Waverly Rescue Squad resources. The study team makes the following recommendations concerning Waverly Rescue Squad.

Recommendations:

1. The Department of Emergency Services and Waverly Rescue Squad sign a Memorandum of Understanding outlining expectations over facilities, equipment, staffing, and response expectations.
2. Waverly Rescue Squad become a component of the EMS Division of the Department of Emergency Services.
3. Any contracted EMS staff should be under contract with Sussex County. If the contracted EMS staff utilize WRS equipment, the county and WRS should establish in the above-mentioned MOU what responsibilities the contracted staff have for maintaining WRS owned property.

⁵ OEMS: Virginia Standards of Excellence Program

The foregoing is a recommendation authorized pursuant to Va. Code 9.1-203.A.4 and is not to be construed as legal advice or as a binding recommendation.

- a. A formalized process should be developed for WRS to file grievances with county staff or contracted staff.
 - b. The above-mentioned MOU should outline an investigative process and possible consequences if the MOU is not followed by county staff, contracted staff, or WRS volunteers.
- 4. The Chief of Emergency Services may consult the Virginia Department of Health's Office of Emergency Medical Services for mediation in the process of establishing the future EMS system in Sussex County.
- 5. The Chief of Emergency Services should support WRS with recruitment (highlighted in various areas of this report) and training. Increasing the number of volunteer providers benefits the county and continues to support the community's wishes.

III. HIRE FULL-TIME OR PART-TIME PROVIDERS

Sussex County has one full-time position in public safety, the Chief of Emergency Services. This position oversees public safety and emergency preparedness in the county while working with volunteer agencies and contracted providers. A decline in volunteer providers, especially regarding EMS, and issues regarding contract providers, suggest that Sussex County should hire full-time or part-time staffing.

Recommendations:

- 1. The Chief of Emergency Services should hire full-time or part-time staff to primarily provide EMS, with additional fire response duties if required.
 - a. This staff should report to the Chief of Emergency Services and fall under the EMS Division.
 - b. This staff should provide primary EMS coverage for Sussex County, utilizing county-owned ambulances or rescue squad ambulances through an agreement with each rescue squad.
 - i. Both Waverly Rescue Squad and Stony Creek Rescue Squad can staff additional ambulances or work with Sussex County to establish a crew schedule to reduce the need for county staff.
- 2. Enough county staff should be hired/on a shift to cover regular operations and call volume in Sussex County.
 - a. Currently contract providers provide three ambulances during the day and one at night with a total of six (6) personnel. At night, two (2) contracted personnel respond from Waverly and volunteers respond from Stony Creek.
 - b. The study team recommends that the county staff a Quick Response Vehicle at night with paid personnel in the Western half of Sussex County. This would increase paid staffing to four (4) at night.
 - c. The Chief of Emergency Services should explore hiring Sussex County staff to cover the six (6) positions during the day and four (4) at night. Volunteer leadership should be approached to fill these positions with regular duty crews to

reduce the number of career staff needed. Volunteers and county staff should be able to respond together to reduce the number of career staff required.

3. Sussex County should transition from contracted EMS to a combination system of county staff and volunteers as suggested above.
4. County staff should regularly train and interact with volunteer EMS providers and firefighters.

IV. ADOPT ONE COUNTY EMS LICENSE

The study team noted that Waverly Rescue Squad and Stony Creek Rescue Squad each operated under their own EMS license as issued by the Virginia Department of Health. In addition, contract providers operated under their own license issued by the Virginia Department of Health. Sussex County did not have an EMS license.

Recommendations:

1. Sussex County should have one EMS license and one operational medical director (OMD) under the Department of Emergency Services.
2. Any EMS agency operating in Sussex County should fall under this EMS license.
3. One EMS license and OMD ensures uniformity across the county and reduces liability for personnel working together from different agencies with different OMDs.
4. The Chief of Emergency Services should contact the Virginia Department of Health's Office of Emergency Medical Services for assistance and mediation in the process of establishing a single EMS license in the county.

V. FIRE AND EMS RISK ASSESSMENT

A fire and EMS risk assessment is essential to make strategic long-term decisions regarding fire and EMS in Sussex County. A comprehensive assessment must look at the apparatus fleet, facilities, staffing, funding, and other aspects of the fire and EMS system deemed necessary by the locality.

The study team visited five fire stations and two rescue squad stations, as well as a county public safety facility, while compiling information for this report. Many of the facilities were in need of repair or expansion. Most of the facilities did not have the ability to accommodate overnight crews and some lacked space for regular business of the volunteer agencies. Of note, Sussex County Public Safety was operating out of a former business that did not provide indoor storage for ambulances or adequate housing for staff.

Recommendations:

1. The Chief of Emergency Services conduct a fleet risk assessment that includes:

- a. A focus on apparatus that meet community specific needs such as population density, zoning, development, previous call data, etc.
 - a. The assessment should examine what the adequate number of each category of response vehicle is for each fire district or EMS district. The referenced categories of response vehicles include:
 - i. engine/pumper
 - ii. aerial device
 - iii. tanker/tender
 - iv. brush vehicle
 - v. EMS vehicle (ambulance or other).
2. The Chief of Emergency Services should create a fleet replacement schedule in consultation with the volunteer emergency agencies.
 - a. The Chief of Emergency Services should prioritize future fleet replacement plans based on the most urgent needs.
 - b. The Chief of Emergency Services should consult volunteer agencies regarding volunteer owned apparatus. This apparatus should be included in the fleet replacement schedule if county funds will be utilized to maintain the vehicle or purchase a replacement.
 - c. The fleet replacement schedule should consider which vehicles gain more mileage or engine time. These vehicles should be rotated with lesser used vehicles of the same type to ensure complete use of a vehicle.
 - i. For example, if station #1's ladder truck runs more often than station #2's, then these units should be swapped to create a longer service life for both ladder trucks.
 - d. Apparatus that cannot be regularly staffed by volunteers or career staff (75% of the time) should be considered surplus apparatus and be of lower priority compared to frequently used apparatus.
 - e. See the below fleet management plan as examples only. The study team does not endorse any of the information contained in these reports produced by outside agencies.
 - i. Tuolumne County, Cal Fire:
<https://tuolumnecounty.ca.gov/DocumentCenter/View/20010/2022-TCFD-Fleet-Replacement-Plan-FINAL?bidId=>
3. The Chief of Emergency Services should analyze staffing for both fire and EMS in the county. NFPA 1720 refers to staffing recommendations for fire apparatus and fire responses in volunteer organizations. This should be used as a reference when making staffing decisions.
 - a. This staffing model should consider volunteer recruitment and retention. If volunteer numbers continue to decline, Sussex County must invest in the necessary facilities, equipment, and personnel to provide fire and EMS to citizens and visitors.

4. The Chief of Emergency Services should analyze how fire and EMS is funded. This should include an audit of fire and EMS agencies, a review of major sources of revenue, and an analysis of how other similarly sized jurisdictions are funded.
5. The Chief of Emergency Services should review facilities for building age, location, ability to house current and future apparatus, and connection to the community.
6. The Chief of Emergency Services should plan for the renovation or construction of new facilities that include overnight housing options for potential career staff or volunteers to utilize.
7. The Chief of Emergency Services should consider combining fire and EMS stations in areas that currently have multiple stations serving the same general area. These shared facilities could be utilized by the volunteer fire departments, rescue squads, county staff, and the community. This would foster greater cohesion between all parties involved.

VI. DEVELOP STANDARD OPERATING PROCEDURES AND GUIDELINES

It was noted that Standard Operating Procedures or Guidelines were either not in place or were incomplete during interviews with the volunteer organizations. Further, it was noted that standards were not uniform from agency to agency, including contract EMS providers.

It was clear to the study team that the county volunteer fire departments operated well together and had a positive relationship with the county. It was also clear that there were operational issues between Waverly Rescue Squad and Sussex County. A proposed EMS plan was provided to the Study Team between Waverly Rescue Squad and Sussex County.

The Study Team found that no formal agreement existed between the 5 fire departments, the 2 rescue squads, or Sussex County.

Standard Operating Guidelines (SOGs) are written guidelines that explain what is expected of emergency personnel in performing their duties. SOGs are a “how-to” guideline to follow in order to achieve a desired goal. SOGs are not necessarily rules or regulations, but rather a path to achieve specific goals and objectives. Standard Operating Procedures (SOP) are formal policies that specify a course of action, thereby ensuring efficiency, predictability, consistency, and safety.

Recommendations:

1. Sussex County should form a team that includes representatives from each volunteer emergency agency, the EMS contract provider, and the Chief of Emergency Services to develop SOGs and SOPs. These SOGs and SOPs should reflect the needs of the citizens, capabilities of the involved parties, and the safety of emergency personnel.
2. NFPA 1720 recommends that fire departments have written administrative regulations, departmental orders, and/or procedures. The above recommendation helps Sussex move closer to NFPA compliance.

The foregoing is a recommendation authorized pursuant to Va. Code 9.1-203.A.4 and is not to be construed as legal advice or as a binding recommendation.

3. It is recommended that SOPs be developed that outline response expectations, duties of Sussex County, and duties of the individual volunteer organizations.
 - a. The agreements should ensure there is a clear delineation for liabilities, cost of service, authorization to respond, as well as staffing and equipment.
4. This recommendation meets NFPA 1720.⁶

VII. BUDGET RECOMMENDATIONS

The study team noted that Sussex County provided substantial funding for new apparatus for the volunteer fire departments and assisted with other operating costs. The study team makes the following recommendations to improve the fiscal stability of the Department of Emergency Services because many require long-term planning and funding to be successful. In addition, centralized and cooperative purchasing can be utilized to reduce costs.

Recommendations:

1. The Chief of Emergency Services should, in consultation with the volunteer agencies, implement a capital improvement plan that addresses apparatus, equipment such as hose, turnout gear, and self-contained breathing apparatus, facilities, and other long-term projects for fire and EMS as identified in the risk assessment.
2. The Chief of Emergency Services should implement centralized purchasing for fire and EMS. This process should be included in county SOP.
 - a. Many items, including medical supplies and items used daily, can be centrally stored in accordance with OEMS regulation and distributed. In addition, many equipment purchases could be made county-wide to increase interoperability and reduce costs
3. The Chief of Emergency Services should implement cooperative purchasing. This process should be included in county SOP.
 - a. Cooperative purchasing is frequently used by government and among businesses to aggregate demand to reduce prices from suppliers. This option often reduces costs for localities and leverages buying power more effectively than ordering supplies independently. The recommendations below provide information on two cooperative purchasing options. The study team does not endorse either program. Each locality should research cooperative purchasing and find what is best for them.
4. The Department of Emergency Services should work with Sussex County staff to implement centralized purchasing and cooperative purchasing. SOP should establish processes for volunteer and paid staff to request items for purchase.

Examples:

⁶ NFPA 1720 4.8

1. NPPGov: The National Volunteer Fire Council has partnered with NPPGov, a cooperative purchasing organization focusing on fire and emergency medical products and services. NVFC members can use NPPGov's competitively bid agreements to purchase products and services at national pricing without having to conduct their own RFP process.⁷
2. Sourcewell: Sourcewell is one of the largest cooperative purchasing organizations in the United States. Combining the purchasing power of over 50,000 public agencies, this option also allows localities to purchase products at national pricing without conducting an RFP process.⁸

Please refer to Virginia procurement policy and your locality's procurement policy when examining cooperative purchasing.

VIII. DEVELOP COUNTY-WIDE TRAINING STANDARDS

The importance of training in fire and EMS cannot be overstated. Training can occur at many levels, including local agency specific training, certification level training, or skills-based training offered through private organizations. Many of the fire departments in Sussex County stated they scheduled monthly training for membership. The county does not offer training directly or provide dedicated resources for training. Most departments did not have minimum training standards that required certification level training such as Firefighter I and Firefighter II. VDFP suggests that firefighters receive certification level training such as Firefighter I to be considered interior firefighters and encourages the Chief of Emergency Services to work with VDFP to provide a certification class, such as modular Firefighter I, in Sussex County.

County-wide training standards should be developed for possible paid staff and volunteer fire and EMS professionals.

Recommendations:

1. The Chief of Emergency Services, in consultation with the volunteer fire chiefs and rescue squad leadership, should develop county-wide training standards with reasonable timeline requirements.
2. Fire and EMS training standards should be uniform across all agencies.
3. The Chief of Emergency Services should consider adding a training coordinator position under the Chief of Emergency Services (career or volunteer) that schedules county-sponsored training for fire and EMS services. This training should occur at each fire station and rescue squad and be open to all first responders in Sussex County.
 - a. The training coordinator should also be responsible for working with VDFP staff, OEMS staff, and Sussex County first responders to schedule training and continuing education.

⁷ "NPPGOV Provides Cooperative Purchasing Options" *National Volunteer Fire Council*, 2022

⁸ "Cooperative Purchasing" *Sourcewell*, 2023

4. The Chief of Emergency Services should explore creating a Firefighter I training program with Sussex County Public Schools. The academic portion of the course could be taught within Sussex County Public Schools, with the Department of Emergency Services handling skills training with the assistance of the volunteer fire departments.
5. The Chief of Emergency Services should explore creating an EMT-basic course with Sussex County Public Schools in partnership with OEMS.
6. The Chief of Emergency Services should implement the EMS Officer Program. The Office of EMS and the State EMS Advisory Board Workforce Development Committee has created an EMS Officer Program that can be implemented in EMS agencies to help boost leadership and help develop and maintain quality leaders in the EMS Community. The program covers topics like human resource management, community and government relations, administration and more.

Sussex County may need to adopt ordinances for training students under the age of 18 if not already established. Please contact VDFP to connect with other localities that utilize high school firefighter training programs.

IX. CROSS-TRAIN FIREFIGHTERS AND EMS PROVIDERS

Currently, Sussex County has two rescue squads and one fire department that are licensed to provide EMS care. In addition, Sussex County utilizes contract EMS to provide care. According to Sussex County response data, the majority of emergency calls in the county are EMS related.

Recommendations:

1. The Chief of Emergency Services encourage cross-training of firefighters and EMS providers. This can be accomplished by providing EMT-Basic courses or firefighter level training.
2. Sussex County volunteer agencies encourage joint membership opportunities for members to serve on both the fire department and rescue squad.
3. Sussex County fire departments establish a formal process for providing drivers to each rescue squad when needed to reduce liability.
4. Any full-time or part-time staffing under the Department of Emergency Services should be trained as both firefighters and EMS professionals (EMT-Basic, Paramedic, etc).
 - a. The primary role for staff should be EMS related.
 - b. Staff should have the ability, if requested or approved by the Chief of Emergency Services and the volunteer fire chiefs, to utilize fire department equipment to assist in life safety.

X. INCREASE RECRUITMENT AND RETENTION EFFORTS

Volunteerism has been a part of the community tradition of the United States since the beginning of colonization. At the origin of volunteer fire departments, volunteers were often the political leaders in a community. Today, the volunteer labor force consists of citizens who are more technologically savvy and driven by an entirely different set of criteria with a common bond of helping the community. The average age of a volunteer member in the fire service today is above 50 years old.⁹ The fire service often tends to subscribe to the belief that all members should be able to do all things. This strategy may not be successful in today's culture. A more productive belief is that a fire department should be viewed as a team with several different groups of individuals being responsible for specific functions.

Sussex County is made up of dedicated volunteer first responders who provide emergency services to their fellow citizens. All Sussex County fire departments and rescue squads expressed issues with recruitment of volunteers. This poses the strongest threat to public safety in Sussex County if numbers continue to decline. The study team learned that there was no formalized recruitment or marketing of volunteer agencies in the county.

Recommendations:

1. Review Fire Department Culture: The Chief of Emergency Services, and each volunteer agency, should encourage a modification of the "how we do things culture". Each department should do an assessment to determine what the main operational areas are for their organization. This would allow for the targeted recruitment of individual members to handle non-emergent functions such as fundraising, entering fire reports, marketing/social media initiatives, fire & life safety education and community programs, human resource management, station & apparatus maintenance, and In- house training. By utilizing these specialized groups to achieve specific tasks, it works to free up the demands on those members that are interested in responding to emergencies and maintaining the necessary training.
2. Develop a "See People Like Me" Culture: The "culture" should become more inclusive. It appeared that white male members outnumbered all other members. It is difficult to recruit members from citizens receiving services if they don't "see people like me". It should be a goal of the Chief of Emergency Services to have membership which reflects the race and gender demographics of the county which are approximately:

White – 39.1%	Black – 55.1%	Other – 1.8%
Male – 58.6%	Female 41.3%	

3. Utilize the "Make Me a Firefighter" Recruitment Tool: The Chief of Emergency Services and each volunteer agency should utilize The NVFC's "Make Me A Firefighter" recruitment tool. This features a department portal filled with resources and tools for implementing a local recruitment campaign as well as a public web site to allow potential volunteers to find local opportunities. There are step-by-step guides and resources on marketing and planning events to engage prospective recruits. It allows the posting of

⁹ "Volunteer firefighters are getting older. It could be a life-or-death issue" *NPR* 2023

volunteer opportunities by entering them into a database which is searchable to potential volunteers who can connect directly with the department through MakeMeAFirefighter.org. It is possible to customize campaign materials with departmental specific information and customize outreach materials for each individual department for use in the community.

4. The Chief of Emergency Services should develop a Recruitment and Retention Plan with consultation from each volunteer agency.
 - a. The National Volunteer Fire Council provides an outline for volunteer agencies to use when developing this plan.¹⁰
 - b. Sussex County should market volunteer agencies through social media and other means to solicit volunteers.
 - c. Sussex County should explore direct benefits for volunteers such as:
 - i. Pay per call
 - ii. VOLSAP
 - iii. Tax Exemptions

XI. COMMUNITY RISK REDUCTION PLANNING

Why do public safety agencies respond to an emergency? They respond to emergency incidents to mitigate the impact, damage, and injury within communities. Communities can proactively approach and possibly prevent these same “risks” or events by utilizing the concepts of community risk reduction (CRR).

CRR is defined by Vision 20/20 as “a process to identify and prioritize local risks, followed by the integrated and strategic investment of resources (emergency response and prevention) to reduce their occurrence and impact.”¹¹ Fire departments have been actively involved in fire prevention for many years through public education, building inspections and other activities.

CRR provides a more focused approach to reducing local identified specific risks. Although there is no specific blueprint for developing CRR plans, there are some common and essential steps. Much of the current literature and training materials suggest that community risk reduction programs use a six-step approach towards development.

- | | |
|-----------------------|-------------------------------------|
| 1) Identify Risks | 4) Prepare Plan |
| 2) Prioritize Risks | 5) Implement Plan |
| 3) Develop Strategies | 6) Monitor, Evaluate, & Modify Plan |

Ultimately, the CRR plan will be unique to each locality, based on the types of risks identified for that community.

Risk assessment is the identification of potential and likely risks within a particular community, and the process of prioritizing those risks. It is the critical initial step in emergency preparedness. This process is based on the collection and review of community profile information comprised

¹⁰ “Develop a Recruitment and Retention Plan” *National Volunteer Fire Council*

¹¹ Vision 20/20 Community Risk Reduction, *Institution of Fire Engineers-USA Branch*

of a loss /event history profile and the response environment. The response environment looks at the type of incidents to which public safety organizations in the community respond, and the capabilities of these organizations. The loss/event profile looks at past experiences and trends in response, losses and causes. A risk assessment helps focus the fire prevention/loss prevention activities of the community and department.”¹²

Recommendation:

1. The Chief of Emergency Services should conduct a community risk assessment to identify potential and likely risks within Sussex County, prioritize those risks, and analyze the capabilities of fire and EMS agencies in Sussex County. A CRA is the first step in strategically planning for a safer community in Sussex County.
2. The Chief of Emergency Services can request the VDFP CRR Coordinator return and assist the county in its Community Risk Assessment (CRA)
 - a. NFPA 1720 indicates that the emergency services engage in the development of a community risk management plan for fire, emergency medical service, and hazardous materials use, storage, and transportation within the county. (NFPA 1720, 4.2;4.2.1;4.2.2; 4.2.3.1)
3. The Chief of Emergency Services should ensure that all non-reporting county fire departments are strongly encouraged to start or continue fire reporting via VFIRS. Not only does this process provide insight into the county’s emergency responses and trends, but it can also provide a means of comparing local trends to regional and national trends. As stated above this information is critical for the identification and mitigation of any community risks.
4. The Chief of Emergency Services should explore a Community Paramedicine (CP) Program.
 - a. A CP program is designed to alleviate the burden on existing medical, social services, and emergency services by misappropriated requests for resources. Disparities in access to healthcare exist across the system and involve many factors including location, race, gender and income. Due to the inability of some Americans to obtain effective healthcare, patients will turn to one resource that is always available – EMS, supported by hospital-based emergency medicine. Inability to access appropriate care leads to activation of the EMS system as it is the only assistance some people can depend on.
 - b. An effective CP program must be data-driven. A common reason programs fail is that their creation and intent differ from the needs of the community. An effective CP program must be a root cause and data-driven process. Root causes may consist of geographic locations of frequent EMS calls, spikes in call volume at a particular location or for a person, and/or repeated requests for service for another individual. A common reason programs fail is that their creation and intent differ from the needs of the community.¹³

¹² “Understanding & Implementing Standards” (2010) *NVFC*

¹³ *Community Paramedicine: What, why and how?*, 2022

- c. Consult the Office of Emergency Medical Services' website for more information and important documents or refer to NFPA 451 – Guide for Community Health Care Programs as a resources for this recommendation:
<https://www.vdh.virginia.gov/emergency-medical-services/community-paramedicine-mobile-integrated-healthcare/>

XII. CANCER PREVENTION

As stated in the Lavender Ribbon Report developed by the NVFC and IAFC, cancer is the leading health risk facing firefighters, largely due to the chemicals and carcinogens they are exposed to while engaged in response activities.¹⁴ Chemically based plastics are in use in nearly every product in our homes, business and vehicles and when they burn, their chemical composition changes.

Recommendations:

1. The Chief of Emergency Services should develop operational SOP's that establish safe cancer prevention practices such as:
 - a. Gross decontamination after fire incidents
 - b. Washing of firefighter PPE following fire or hazardous materials incidents
 - c. A fire hood exchange program
 - d. Shower facilities at fire stations
2. The Chief of Emergency Services should encourage /facilitate National Firefighter Registry (NFR) sign up.
 - a. The Firefighter Cancer Registry Act of 2018 mandated the Centers for Disease Control and Prevention (CDC) create a voluntary registry of firefighters to collect health and occupational information to determine cancer incidence in the U.S. fire service. In response to this mandate, CDC's National Institute of Occupational Safety and Health (NIOSH) established the National Firefighter Registry (NFR).¹⁵
 - b. There have been no comprehensive, national data sources in the United States for studying the relationship between firefighting and cancer among all firefighters. The NFR will help researchers better understand and reduce cancer in firefighters by matching the information provided by participating NFR firefighters with cancer diagnosis information from state cancer registries. This matching process will allow NIOSH to study the relationship between firefighting and cancer outcomes over time.

Step 1: Firefighters sign up for the NFR.

Step 2: NIOSH researchers match firefighter profiles with potential information in state cancer registries over time. This makes it possible to study the relationship between firefighting and cancer over time, even if cancer diagnoses occur in the future.

¹⁴ "Lavender Ribbon Report-Best Practices for Preventing Firefighter Cancer" (2021) *NVFC & IAFC*

¹⁵ H.R 931 "Firefighter Cancer Registry Act of 2018". (2018) *115th U.S Congress*

Step 3: NIOSH captures work history details. This information can be used to better understand firefighters' exposures and how they may be related to cancer.

Step 4: Stronger evidence can help inform new health and safety measures to protect firefighters from cancer. Combining information from firefighters across the U.S. will help researchers better understand cancer and its risk factors in the fire service, which could ultimately help reduce cancer among firefighters for generations to come.

XIII. COMMUNICATIONS

Sussex County should consider updating its communication system to provide countywide radio coverage. During multiple meetings, fire and EMS personnel expressed concern over “dead” zones in the county where radio traffic could not be maintained.

911 Communications was not within the scope of this study. The below recommendations are based on comments by fire and EMS personnel and are suggestions for Sussex County to investigate.

Recommendation:

1. The Chief of Emergency Services should conduct a study of radio communications in Sussex County, working with each volunteer agency to determine areas that are not able to be reached.
2. The Chief of Emergency Services should work with the Sussex County Sheriff's Office to address the reported “dead” zones in the county.
3. Sussex County should reference NFPA 1225: Standard for Emergency Services Communications to review current radio usage and procedure

REFERENCES

- About Sussex County.* (2023) Sussex County, Virginia
<https://www.sussexcountyva.gov/page/about-sussex/>
- Bearne, A. (2023, June 13) *Volunteer firefighters are getting older. It could be a life-or-death issue.* National Public Radio. <https://www.npr.org/2023/06/13/1181131195/volunteer-firefighters-older-shortage-younger-workers-fire>
- Brown, A and I. Urbina. (2014, August 16) *The Disappearing Volunteer Firefighter.* New York Times. <https://www.nytimes.com/2014/08/17/sunday-review/the-disappearing-volunteer-firefighter.html>
- Cooperative Purchasing* (2023) Sourcewell. <https://sourcewell.org/solutions/cooperative-purchasing>
- Community paramedicine: What, why and how?* (n.d.). EMS1.
<https://www.ems1.com/community-paramedicine/articles/community-paramedicine-what-why-and-how-IJicPxx6GCvn70Cu/>
- Develop a Recruitment and Retention Plan.* National Volunteer Fire Council.
<https://www.nvfc.org/wp-content/uploads/2016/12/RR-Plan.pdf>
- EMS Officer I.* Office of Emergency Medical Services.
<https://www.vdh.virginia.gov/emergency-medical-services/chatr/leadership-management/ems-officer-i/>
- H.R 931 “Firefighter Cancer Registry Act of 2018”.* (2018) 115th U.S Congress.
<https://www.congress.gov/115/plaws/publ194/PLAW-115publ194.pdf>
- Lavender Ribbon Report.* (2021, September 28). National Volunteer Fire Council.
<https://www.nvfc.org/lrr/>
- 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. (n.d.). National Fire Protection Association. <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1720>
- NFPA 1225: Standard for Emergency Services Communications. (n.d.). National Fire Protection Association. <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1225>
- Tuolumne County Fire Department Fleet Replacement Plan.* (2022). California Department of Forestry and Fire Protection. Retrieved January 5, 2023, from
<https://tuolumnecounty.ca.gov/DocumentCenter/View/20010/2022-TCFD-Fleet-Replacement-Plan-FINAL?bidId=>

Orlyk, C. (2022, October 4). *NPPGov Provides Cooperative Purchasing Options for Volunteer Fire and EMS Departments*. National Volunteer Fire Council.

Sussex History. (2023) Sussex County, Virginia
<https://www.sussexcountyva.gov/page/sussex-history/>

Understanding and Implementing Standards: NFPA 1851. (2014) National Volunteer Fire Council. https://www.nvfc.org/wp-content/uploads/2016/09/1851_standards_guide.pdf

U.S. Census Bureau QuickFacts: Sussex County, Virginia. Census Bureau QuickFacts.
<https://www.census.gov/quickfacts/sussexcountyvirginia>

Virginia Standards of Excellence Program. Office of Emergency Medical Services.
<https://www.vdh.virginia.gov/emergency-medical-services/virginia-standards-of-excellence-program/>

Vision 20/20 CRR Connect (2023) Institution of Fire Engineers – USA Branch.
<https://strategicfire.org/crr/>

APPENDIX A

Resolution requesting the Virginia Fire Services Board conduct a comprehensive analysis of the Fire and EMS system of Sussex County, Virginia

RESOLUTION #22-86



REQUESTING THE VIRGINIA FIRE SERVICES BOARD TO COMPLETE A COMPREHENSIVE FIRE AND EMS ANALYSIS OF SUSSEX COUNTY

ON MOTION OF SUPERVISOR TYLER, seconded by SUPERVISOR W. JONES and carried:
RESOLVED that the Sussex County Board of Supervisors hereby approved resolution requesting Virginia Fire Services (VFS) Board to complete a comprehensive Fire and EMS Analysis of Sussex County, to-wit:

WHEREAS, fire and EMS studies are conducted by the Virginia Fire Services Board at the request of a local jurisdiction, per Section 9.1-203.4 of the Code of Virginia; and

WHEREAS, the purpose of the study is to provide an objective view of the fire and EMS services provided in a local jurisdiction, and to provide feedback in areas that are successful and areas that need improvement, to include recommendations on how to improve fire and EMS service delivery; and

WHEREAS, the Sussex County Board of Supervisors wishes to provide excellent fire and EMS service delivery to its residents in the most cost-effect manner; and

WHEREAS, recognizing that fire and EMS volunteers have declined in number but have been historically relied upon to provide these services both in the rural areas and towns of Sussex County, the Sussex County Board of Supervisors wishes to maintain the involvement of fire and EMS volunteers to the maximum extent possible while maintaining adequate response standards in the interest of public safety; and

WHEREAS, given the Sussex County Board of Supervisors' objective to support volunteer organizations, and as a standard part of the study process of the Virginia Fire Services Board, this analysis will include the involvement of all volunteer fire and EMS organizations within Sussex County, to include the Waverly Rescue Squad, which as of January 2022 is not providing direct EMS service delivery; and

WHEREAS, the Sussex County Fire and Rescue Association has endorsed this request to address all fire and rescue needs across the entire county.

THEREFORE BE IT RESOLVED that the Sussex County Board of Supervisors requests the Virginia Fire Services Board to complete a comprehensive fire and EMS analysis (fire and EMS study) of Sussex County, with the objective of identifying strengths and areas of needed

Page 2: Resolution R-22-86: Request for VFS Board to Complete a Comprehensive Fire & EMS Analysis
July 28, 2022

improvement in the provision of fire and EMS service delivery across the county, in order to best meet the public safety needs of the residents in the most cost-effective manner.

Adopted this 28th day of July, 2022


Susan B. Seward, Chair
Sussex County Board of Supervisors

A COPY TESTE:


Richard Douglas, Clerk

APPENDIX B

Scope of Agreement between the County of Sussex and the Virginia Fire Services Board



COMMONWEALTH of VIRGINIA

Keith H. Johnson
VIRGINIA FIRE SERVICES
BOARD CHAIR

Virginia Department of Fire Programs

Scope of Fire and EMS Study Agreement

between the

County of Sussex

and the

Virginia Fire Services Board

PURPOSE AND SCOPE

The purpose of this agreement is to establish mutually accepted duties, responsibilities, and expectations between the Virginia Fire Services Board, its designated Fire and EMS Study Committee and the locality which has requested the Fire and EMS Study/Technical Assistance from the Virginia Fire Service Board. The agreement is provided to help define activities and expectations between both parties.

AGREEMENT

- Study results/recommendations shall be comprehensive in nature and shall be consistent with and organized according to a final revised scope of work as negotiated between the Study Committee and the locality prior to the formal commencement of the Study. *****Refer to Self-Assessment Questionnaire for Scope of Study.***
- While questions of staffing ratios, response time, capital equipment purchases, etc. are relevant to the Study process, the locality should not expect detailed recommendations in these areas beyond system-wide recommendations.
- Study Results will be openly presented to the elected/appointed governing body, the requesting agency as well as any additional requesting organization(s);
- The time frame noted for technical assistance will be accepted;

- All relevant organizational data will be made available to the study committee; and,
- Locality will provide to the Virginia Department of Fire Programs a central point of contact. Please ensure the contact is available Monday – Friday from 9 am to 5 pm, and nighttime and weekends as needed.
- Within 6 to 9 months of the Study completion, the Department of Fire Programs will email the locality a feedback follow-up survey. It is requested that the locality complete the survey so the Agency and Board can gain valuable in-sight into the success and areas of improvements for future studies. Your participation in the feedback survey is important to the Agency and Board.

REVIEW AND TERM

This agreement shall be in effect until the end of the Fire and EMS Study.

SIGNED

We do hereby acknowledge and agree to abide by the provisions of this Memorandum of Understanding.


 Chairman, Virginia Fire Services Board

3-3-2023
 Date


 County Administrator

1-30-23
 Date