

VIRGINIA FIRE SERVICES BOARD



A Report of Findings and Recommendations:

Powhatan County Fire & EMS Study



November 2015

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Huguenot Volunteer Fire Department, Company 2
Macon District Volunteer Fire Department, Company 3
Fine Creek Volunteer Fire Department, Company 4
Deep Creek Volunteer Fire Department, Company 5

Rescue Squad – One

Powhatan Volunteer Rescue Squad – 3 facilities

- (Main, Ballsville, and Fine Creek)

EXECUTIVE SUMMARY

This report documents the findings and recommendations for the Powhatan County Fire and Emergency Medical Services (EMS) Study. The information contained is not to be construed as legal advice or as binding recommendations. This report is intended to provide guidance for Powhatan County Board of Supervisors and its fire and rescue stakeholders to build on what is working well, while observing opportunities for improvement. Strategic focus in these areas will enhance the overall quality and coordination of fire-rescue service delivery to residents of Powhatan County.

The study was requested by the Powhatan County Board of Supervisors in order to analyze several areas of responsibility within the County's fire and rescue services. The Study Committee was comprised of representatives from the Virginia Fire Services Board, the Virginia Department of Fire Programs, the Virginia Department of Forestry and the Virginia Office of Emergency Medical Services.

The findings and recommendations are organized into five working themes to include:

- Organizational Development
- Communication
- Training
- Budget and Administration
- Delivery of Services

These working themes provide a central focus for prioritizing the study's recommendations. They serve as a guide for the Study Committee to identify and evaluate measures that ultimately will improve the quality and coordination of fire and rescue services within Powhatan County.

Below is a high-level summary of the findings and recommendations, which will be discussed further in the report.

Theme 1: Organizational Development (Page 11)

- **Strategic Plan:** Powhatan County should develop a strategic plan for fire and rescue services to increase performance levels and service delivery.
- **Continuity of Leadership and Succession Planning:** Powhatan County should develop a program that illustrates leadership and interpersonal relationship skills within the fire and rescue services and focuses on growing future leadership.
- **Accountability Practices:** The Senior Policy Group in collaboration with the Fire and Rescue Chief should enhance the county's Standard Operating Procedures (SOP) for the fire departments while also ensuring to establish one for EMS.

Theme 2: Communications (Page 15)

- *Levels of Interdepartmental Communications:* The County should host a strategic communication session to resolve existing challenges and barriers between the Powhatan County Board of Supervisors, the County Administration, the Senior Policy Group and members of the volunteer fire and rescue departments.
- *Improved Dispatch System:* Powhatan County must upgrade its entire communication system and set it in a secure facility.

Theme 3: Training (Page 18)

- *Coordinated Training Program:* The County should work with the Senior Policy Group to develop a structured and coordinated training program to address the comprehensive training needs of the entire County.

Theme 4: Budget and Administration (Page 20)

- *County Funding and Capital Improvements:* Powhatan County should restructure its current funding model so it is able to achieve an equitable and performance based model.
- *Standardization and Central Purchasing:* Powhatan County should continue utilizing centralized purchasing with an emphasis on enhancing the process.

Theme 5: Delivery of Services (Page 24)

- *Operations and Staffing:* Powhatan County should research deployment software that will help determine their needs.
- *Recruitment and Retention:* Powhatan County should adopt a countywide recruitment and retention plan.

METHODOLOGY

For each task of the work plan, the Study Committee identified objectives, performed specific activities, and delivered project products. The following is an overview of the study process:

PHASE I: INITIATE PROJECT

Objectives: Initiation of Study

To initiate the study, the Study Committee began by gaining a comprehensive understanding of the project's background, goals, and expectations. This was carried out by identifying in detail the specific objectives for the review, and assessing how well the work plan would accomplish the objectives. In addition, the Study Committee set out to establish a mutually agreed project work plan, timeline, deliverables, and monitoring procedures that would support the accomplishment of all project objectives. The final study initiation step consisted of collecting and reviewing existing operational data, information on agreements along with relevant policies and procedures. Many of these review materials are included in the appendix of this study.

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

The meetings also allowed the Study Committee to obtain pertinent reports and background materials relevant to the review, such as current and historical staffing data, as well as a description of the current service delivery system and organization.

Based on this course of action, the Study Committee concluded this section of the study with a revised project work plan/timeline deliverable.

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 expected service levels;
- Identify opinions of department officials concerning the operations and performance of the department;
- 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.

Each goal was realized with the support of Powhatan County's study project manager and Fire and Rescue Chief, Steven Singer. Chief Singer assisted in finalizing the interview list and establishing a schedule that was reasonable, but more importantly convenient for the interviewees. All interviews were conducted during an allotted timeframe and a considerable amount of information was collected. Face-to-face interviews were conducted with majority of Powhatan County's Fire and Rescue organizations as well as County leadership including County Administrator Patricia A. Weiler.

The Study Committee received descriptions of staffing and deployment responses in meeting service demands at targeted service levels. The discussions also provided a snapshot of personnel management contentions as well as concerns regarding service delivery. It is also important to note that the Study Committee visited all fire and rescue stations that were staffed throughout Powhatan County in an effort to support their research of the County's organizational functioning.

The deliverable for this section of the study work plan consisted of a thorough evaluation of the site visit data and the development of working themes to capture the team's assessment.

PHASE III: PREPARE ANALYSES AND DEVELOP CORE STRATEGIES

Objectives: Evaluate Current Trends and Prepare a Report

The third phase of the study work plan involved further investigation and understanding of the organizational structures, operations, limitations, achievements, and opportunities for improvement within the volunteer and career 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. Data obtained during the study process also assists the Study Committee in identifying issues influencing the current levels of service.

After receiving and critically evaluating information from the interviews and all supporting materials, the Study Committee began identifying the necessary critical action steps to achieve exceptional organizational functioning and uniform service levels throughout Powhatan County.

Each action step was selected to identify the changes in policies, facilities, apparatus, and equipment to ensure that the County would be capable of providing fire-rescue services at the desired level going forward.

The deliverables achieved in Phase III involved drafting a report that evaluated current trends in the services, recommended action steps for improvement, and the assignment of responsibility.

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 designated locality project manager, Chief Steven Singer to ensure the content is accurate. Upon receiving corrections, the Study Committee revised the draft report, as needed, to assist in the preparation and issuance of the final report.

The deliverables for the final phase of the work plan consisted of 1) a draft report, and 2) the final report.

COUNTY DEMOGRAPHIC INFORMATION

Powhatan County is conveniently located in the Commonwealth's Central Piedmont region between the Appomattox and James Rivers. The County's close proximity to Richmond has facilitated significant population growth in recent years, ranking Powhatan as one of the fastest growing counties in Virginia. According to the U.S. Census Bureau, the population of Powhatan County is 28,046 and the jurisdiction has witnessed a 25 percent population increase since 2000.¹ Another contributing factor to the population growth is the high quality of life enjoyed by residents of Powhatan County. In a 2010 study, the Robert Wood Johnson Foundation ranked Powhatan sixth in their "County Health Rankings".²

This predominately rural locality covers 260 square miles. Agriculture and forestry are major contributors to the overall economy in Powhatan County. According to the Economic Impacts of Agriculture and Forestry Industries in Virginia, the direct economic impact of agriculture and forestry-related industries in Powhatan County was \$52.7 million during 2011.³ According to Virginia Employment Commission data, the other leading employment industries include government, construction, retail, healthcare and tourism.⁴ The County's robust economy has yielded an unemployment rate of 4.5 percent in CY2014, which is lower than both the statewide and national average.⁵ Additionally, only 5.4 percent of the population is living below the poverty level, measuring nearly 6 percent lower than the statewide average.⁶

The median age of Powhatan County residents is 41.6 years old. Minorities account for 16 percent of the population. The median household income is \$76,548, which is \$12,641 above the average for Virginia.⁷

The fire and rescue services of Powhatan County are provided by a dedicated group of 130 volunteers, with supplemental paid emergency medical services personnel. Powhatan Fire and EMS is composed of five volunteer fire companies, one volunteer rescue squad and countywide administration. The Rescue Squad is centrally located with two substations to help with coverage. The five fire companies are strategically located across the County to ensure adequate coverage throughout Powhatan County. The fire companies are staffed by volunteers with only a paid County chief at this time. During 2014, Powhatan County first responders answered 1,914 fire and emergency medical services (EMS) calls.⁸

A listing of the fire and rescue services providers can be found below:

¹ The County of Powhatan, Population

² Ibid

³ Economic Impacts of Agriculture and Forest Industries in Virginia

⁴ VEC Community Profile: Powhatan County

⁵ Ibid

⁶ U.S. Census Bureau: Quick Facts

⁷ Ibid

⁸ Virginia Fire Incident Reporting System (VFIRS) Appendix 2

- Deep Creek Volunteer Fire Department
- Fine Creek Volunteer Fire Department
- Huguenot Volunteer Fire Department
- Macon Volunteer Fire Department
- Powhatan County Volunteer Fire Department
- Powhatan Volunteer Rescue Squad

The goal of the fire and rescue service is to protect life and property by delivering the highest possible level of service consistent with need at the lowest possible cost consistent with safety. First responders responsible for fire suppression provide an array of additional emergency services to the residents of Powhatan County. They include light and heavy rescue, vehicle extrication, water rescue, hazardous materials, and other non-emergency activities. The rescue squads within the County provide basic life support (BLS) and advanced life support (ALS) rescue ambulance services to all areas of the County.

Powhatan, a rural community, has very few fire hydrants and relies on a tanker shuttle operation to deliver water to emergency incidents. They utilize numerous dry hydrants spread throughout the County to enhance their tanker shuttle operation.

FINDINGS AND RECOMMENDATIONS

This section provides a summary of the five working themes for this study report. The summary is based on areas of concern that were repeatedly cited in the face-to-face interviews and observed during the site visit. Following this section is an in-depth examination of each theme, to include findings and recommendations.

Theme 1: Organizational Development (Page 11)

- Strategic Plan and Unified Mission
- Continuity of Leadership and Succession Planning
- Accountability Practices

Theme 2: Communications (Page 15)

- Levels of Interdepartmental Communications
- Improved Dispatch System

Theme 3: Training (Page 18)

- Coordinated Training Program

Theme 4: Budget and Administration (Page 20)

- County Funding and Capital Improvements
- Standardization and Central Purchasing

Theme 5: Delivery of Services (Page 24)

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.

- Operations and Staffing
- Recruitment and Retention

Powhatan County's fire and rescue service providers and administration should utilize the national consensus standards. The standards were developed by the National Fire Protection Association (NFPA) with the input and support of fire and emergency services personnel, businesses, industry and other stakeholders, as guidance documents and resources to address several of the findings identified in this report.⁹

⁹ For a complete listing of the national consensus standards developed by the National Fire Prevention Association, visit:
http://www.nfpa.org/aboutthecodes/list_of_codes_and_standards.asp

THEME 1: ORGANIZATIONAL DEVELOPMENT

Powhatan County Fire Department consists of five volunteer fire companies which include a full time paid fire chief, two part-time assistant chiefs, and a full time office manager. The County's emergency medical services (EMS) is delivered by the Powhatan Volunteer Rescue Squad and supplemented by contract EMS providers paid by the County.¹⁰ These organizations provide 24 hour basic and advanced life support seven days a week, 365 days a year.

Powhatan recently amended its County Code with a focus on Chapter 46; Article I. The amendment articulates the role and responsibility of the County Fire and Rescue Chief while also clarifying the members of the Senior Policy Group.

The ordinance defines the County Fire and Rescue Chief as the main centralized authority of the County's fire and rescue services. The Fire and Rescue Chief is tasked to provide day-to-day management of the Department's function. The County defines Senior Policy Group as an entity consisting of fire and rescue leaders that serve as an advisory group to the County's Fire and Rescue Chief.¹¹ Therefore, it should be consulted prior to regulation/policy related modifications.

The ordinance further cites that the Senior Policy Group will consist of the Chief from each volunteer station and one career fire and rescue employee appointed by the Fire and Rescue Chief. Moreover the amendment established one system – Powhatan County Fire and Rescue System, referred to as the “Department.” The Department will provide all fire and emergency medical services. The County Ordinance also articulates the role and responsibilities of the fire and rescue system which include regulating and managing all pre-hospital emergency patient care along with fire suppression, education and rescue services of Powhatan County.¹² Powhatan County should be applauded for its organizational structure.

Recommendations:

1. The Senior Policy Group should create its own bylaws.
2. With effective bylaws, the Senior Policy Group will be able to ensure that all fire and rescue service providers within the County are working together.
 - a. Collaboration will help to develop ownership in a unified system and create transparency.¹³
3. The Senior Policy Group in collaboration with the Fire and Rescue Chief should update the Standard Operating Procedures (SOP) for the fire departments while also ensuring to establish one for the EMS.

¹⁰ County Background

¹¹ County Ordinance

¹² Ibid

¹³ Leading the Transition in Volunteer and Combination Fire Departments, November 2005

4. This study should be used as a starting point for continuously reexamining and developing the most efficient and effective Fire Rescue System to meet the community's needs.

Strategic Plan

Powhatan County's fire and rescue organizations identified a need for increased coordination. In order for such continuous improvement to occur, Powhatan County should pursue efforts to establish a Strategic Plan. This Plan should represent the collective efforts of Powhatan County's leadership to identify the critical challenges they face in the future and the initiatives they must undertake to continue to deliver the quality of service their citizens deserve and expect. This Plan should build upon the commitments of the County's vision, mission and values. Strategic planning must become institutionalized as an integral part of fire and rescue departments and community resource allocations.¹⁴ The County should explore hiring a professional vendor or bring in someone with experience to guide them through this process.

As provided during the site visit, the volunteer rescue system expressed the absence of inclusion during the countywide fire and rescue decision-making process. The strategic plan will allow vested parties the opportunity to create effective policies while being attuned to its publics' interests, demands, and expectations. It is imperative to keep in mind that decisions only have legitimacy if parties involved work together and are in agreement.¹⁵ The strategic planning process will create public value for Powhatan County if the fire and EMS and other stakeholders are fairly represented and there is effective use of relevant expertise along with transparency of the deliberations.¹⁶

Recommendations:

1. Working with the Senior Policy Group, the Powhatan County governance should adopt and implement a strategic plan for its fire and rescue services to increase performance levels and achieve lower cost of service delivery.
 - a. Stakeholders such as fire and rescue personnel and County leadership must each play an integral part in the development of this strategic plan in order to meet stakeholder's expectations and foster commitment.
 - b. Parties involved in the strategic planning process should analyze the gap between where the County is and where it wants to be in the future and identify strategies to close this gap.
 - c. It is suggested that a neutral party facilitate this process.

¹⁴ Preserving and Improving the Future of the Volunteer Fire Service, March 2004

¹⁵ Mark Moore, *Creating Public Value: Strategic Management in Government*, 1995

¹⁶ Ibid

2. The Senior Policy Group and the Fire and Rescue Chief should collaboratively establish a system of measurable goals and objectives. The performance measurement's factors will strengthen the newly developed strategic plan.
 - a. Strategic plans should identify immediate, intermediate and long-term goals with reasonable target deadlines.
 - b. The Board of Supervisors should routinely assess the achievement of these performance measurements and alleviate any barriers to their completion.
3. In developing its strategic plan, Powhatan County's fire and rescue organizations should continue their commitment to using incident analysis and reporting, to include the Virginia Fire Incident Reporting System (VFIRS) and the Virginia Pre-Hospital Information Bridge (VPHIB).
 - a. Powhatan County's commitment to reporting will ensure that they have reliable data to appropriately develop a plan to address operational and capital funding needs, or equipment, apparatus and facility needs.
 - b. By analyzing fire and rescue incident data and potential community hazards, a plan can be developed to address deployment of resources, placement of sub stations, and the number of personnel needed for response and prevention efforts.
 - c. Access to the data collected should be provided to rescue squads and fire departments so they are able to get a comprehensive understanding of their performance.
 - d. The use of data such as VFIRS and VPHIB can be contributing factors to performance measurement and can further enable stakeholders to assess the effectiveness of the strategic plan.

In Powhatan County, performance measurements will enable the Board of Supervisors to evaluate the performance of fire and rescue entities tasked with accomplishing the goals and objectives of the strategic plan.¹⁷ The performance measurement will exhibit clear association between performing, planning, spending and results.¹⁸ Powhatan County will have the opportunity to evaluate its mission, vision and performance objectives through three perspectives: financial accountability, constituent priorities and internal processes¹⁹.

Continuity of Leadership and Succession Planning

The Senior Policy Group in collaboration with the County Government should consider developing a continuity of leadership or succession planning program to focus on training and

¹⁷ Gerald Gordon, *Strategic Planning for Local Government*, 2005

¹⁸ Ibid

¹⁹ Ibid

mentoring future leaders within the system. The succession planning program will ensure retention of institutional knowledge, including subsidizing advanced officer training. A succession plan will address the needs of the Powhatan County fire and rescue services by providing formal program to develop and enhance the future potential of personnel.

Recommendations:

1. Powhatan County should develop a program that demonstrates to all fire and rescue personnel the value of leadership and interpersonal relationship skills. The following elements should be considered for inclusion in the program:
 - a. A Leadership and Career development program for the volunteer fire and rescue personnel that focuses on the following subject areas; Management, Communication, Prevention, Operations and Safety.²⁰
 - b. Incentives for advanced training and higher education.
 - c. Leadership training should be offered as an ongoing long-term project.
 - d. With the assistance of a trained facilitator, the fire and rescue organizations should hold a focus group consisting of stakeholders to determine how to accomplish and successfully implement the program.

Accountability Practices

According to the National Fire Protection Association (NFPA), a standard operating procedure is “an organizational directive that establishes a standard course of action.”²¹ Standard operating procedures (SOPs) are written guidelines that explain what is expected and required of fire service personnel in performing their jobs.²² It is critical for Powhatan fire and rescue personnel that they adhere to a system of SOPs to better coordinate service delivery throughout the County. It is imperative that all members thoroughly understand their responsibilities and expectations. Organizations that lack or have weak SOPs are increasingly vulnerable to accidents, lawsuits, preventable costs, personnel problems, and damage to their professional image. Powhatan should be applauded for their current SOP, specifically within the chain of command scope.

1. Utilizing the guidelines outlined in NFPA 1561: Standard on Fire Department Incident Management Systems, Powhatan County should enhance its current fire services SOP while also establishing one for the EMS. It is further recommended for Powhatan to combine documents and create countywide standard operating procedures.

²⁰ William Shouldis, *Officer Development Programs on a Budget*, 2008

²¹ Developing Effective Standard Operating Procedures for Fire and EMS Departments, December 1999

²² Ibid

- a. Increased structure and coordination to the management of emergency incidents will ensure the safety and health of fire-rescue personnel.
 - b. The County should continue emphasizing the importance of the incident management system in managing all emergency incidents and training exercises. Powhatan County should further emphasize the importance of written plans to anticipate incidents that require standardized procedures.
- 2. Informational and training sessions must be held with all Powhatan County fire and rescue members to ensure all personnel are knowledgeable and adhere to the countywide SOP.
 - a. New members should receive training on the standard operating guidelines during their orientation to ensure they abide by the County's SOP.
 - b. It is imperative that all members thoroughly understand their responsibilities and expectations.
- 3. It is recommended that the Incident Command System currently in place be practiced through full-scale exercises.²³
 - a. This will help identify response challenges and allow them to be resolved before an incident.

THEME 2: COMMUNICATIONS

In order to develop a cohesive Fire-Rescue System in Powhatan County, the Board of Supervisors and the County Administration must foster positive internal and external communication among the County's fire and rescue organizations along with members of the general public. Without effective and trusting relationships, the County will have limited success with the recommendations contained in this report and any other attempts at coordinating and improving the fire and rescue services in Powhatan County. Before other identified recommendations can be implemented, effective and reliable communication capabilities must be established between the volunteer departments and the County.

Public safety personnel must have access to reliable and instantaneous communications at all times to effectively coordinate response and recovery operations. Emergency communications is not solely a product of technology, but rather a condition of a locality's governance, standard operating procedures and training. To achieve an effective and efficient emergency response framework, all areas of emergency communications must collectively work effectively.²⁴ Without reliable communications, the safety and security of Powhatan County's fire and rescue service providers are jeopardized.

²³ Incident Command System, Overview; <http://www.fema.gov/emergency/nims/IncidentCommandSystem.shtm>

²⁴ Ten Years After 9/11: Improving Emergency Communications: Hearing before the U.S. Senate Homeland Security and Governmental Affairs Committee (July 2011).

Levels of Interdepartmental Communications

During the site visit, the study committee observed and documented inconsistent communication system among the fire departments and the County's EMS and rescue personnel. The County's current changes have not been received well among certain entities within the Fire and Rescue System. The burden lies with the County Administration and the Board of Supervisors in encouraging an open and honest dialogue as it relates to the present system-wide modifications. All relevant parties must work together to provide the highest quality level of service.

Recommendations:

1. The County should host a strategic communication session with a skilled mediator to assist in developing effective communications in and between the fire and rescue departments, the communications center along with Powhatan County Administration and its Board of Supervisors.
 - a. The objective of this work session should be to develop strategies to overcome any identified barriers to the implementation of an effective communication system, both within departments and with the general public.
 - b. The County must develop an efficient and effective communication model to ensure all stakeholders within the public safety community have input into long-term plans and decisions.
 - c. This communication model must ensure reliable documentation related to public safety strategic planning and development. It must be disseminated and received by all public safety stakeholders.
2. The County should strengthen its fire and life-safety communication activities with the residents of Powhatan County.
 - a. Increased efforts to promote the positives attributes of the fire and rescue services in Powhatan County can raise morale and attract more volunteers. Some options include producing an annual report, developing a quarterly newsletter and utilizing social networking avenues.
3. The County should take advantage of pre-existing fire and life-safety information available through state and federal organizations. Public fire and life-safety education resources are available at the following locations:
 - i. Virginia Department of Fire Programs:
http://vafire.com/fire_safety_education
 - ii. Virginia Fire and Life Safety Coalition: <http://www.vflsc.org>
 - iii. The Home Safety Council: <http://www.homesafetycouncil.org>
 - iv. National Fire Protection Association: <http://www.nfpa.org>

- v. Virginia Department of Forestry: <http://www.firePowhatanvirginia.org>
- vi. Virginia Department of Emergency Management:
<http://www.vaemergency.gov/social-media/alert-localities>

Improved Dispatch System

The current dispatch system is managed by the Sheriff's Office. Throughout the site visit, the study committee was advised the County's radio communications consists of outdated technology and inconsistent dispatch procedures. Powhatan's emergency communications system was installed on/or about 2003. At the time it was the best in the industry (VHF High Band system). However, this twelve year old system has reached its end of service life.

The County is aware that its present system has major flaws and a thorough review would improve the response and safety of Powhatan's public safety community. A critical analysis of the dispatch system and relevant protocols is presently being conducted. There was no specific time-frame for the completion of this initiative.

Recommendations:

1. Powhatan County needs to upgrade its entire communication system and set it in a secure facility.
 - a. The current dispatch center's location does not meet the entities' needs. Therefore, it is recommended that it be relocated to an upgraded infrastructure.
 - b. Powhatan County should incorporate a needs assessment for not only the equipment and the platform, but also personnel to operate the system.
2. The County should continue its efforts to improve the fire and rescue dispatch protocols to ensure a consistent service delivery across the County.
 - a. Identify specific criteria regarding what qualifies a BLS or ALS call through the County's Operational Medical Director.
 - b. It is highly recommended that input be solicited from the Senior Policy Group along with other stakeholders such as the sheriff and communications center staff.
3. Accounting for call volume and complexity, the Powhatan County Board of Supervisors should examine the feasibility of increasing dispatch personnel.
 - a. Additional staff will likely improve the overall quality of dispatch operations by affording each dispatcher sufficient time to document all pertinent information and efficiently relay it to first responders.

- b. The County should consider improving the use of emergency medical dispatch program.
 - c. The following resources are provided as a means of analyzing staffing to ensure adequate dispatch coverage:
 - i. The Association of Public Safety Communication Officials (APCO) – Project RETAINS Toolkit 2.0;
 - ii. The National Fire Protection Association’s (NFPA) Standard 1221 – Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems; and,
 - iii. The National Emergency Numbers Association’s (NENA) Standard 56-002: 9-1-1 Call Answering Standard/Model Recommendation.
- 4. The Powhatan County Board of Supervisors should appoint a Communications Advisory Committee from the Senior Policy Group or outside to thoroughly analyze the County’s overall dispatch system.
 - a. The Committee should meet at least quarterly, more often if needed.
 - b. Membership shall include representatives from fire, rescue and law enforcement.
 - c. The Committee should review dispatch protocols, procedures, staffing and equipment upgrades and provide recommendations to the Fire and Rescue Chief.
 - d. The County representative should be the Fire and Rescue Chief who will serve as an ex-officio member of the Advisory Committee. The Fire and Rescue Chief will be responsible for communicating recommendations to the County Administration.
- 5. Based on the guidance from the Communications Advisory Committee, the Senior Policy Group should enhance the current dispatch protocols and procedures.
 - a. The level of response should be consistent across each department and throughout the day.
 - b. Standardization of dispatch protocols will improve the overall effectiveness and efficiency of Powhatan County’s fire and rescue response.
 - c. Response times should be continuously evaluated for effectiveness.

THEME 3: TRAINING

One of the secrets of a successful Countywide Fire-Rescue System is the full integration of volunteer personnel, regardless of their affiliation at the tactical level. Tactical equality recognizes all positions, from firefighter through senior fire officer and requires minimum

training standards to ensure performance level.²⁵ Tactical equality is achievable in Powhatan County if the Fire and Rescue System provides performance-based, certifiable training and the opportunity for all volunteer personnel to train together. The approach will facilitate the development of personal and professional relationships. Training and continuity of leadership are closely joined because solid basic training will foster strong and consistent cooperation among the County's emergency response agencies.

Coordinated Training Program

Development of important skills is the basis for safety and improving services received by the citizens. The fire and rescue organizations in Powhatan County work hard to ensure the sufficient offerings of mandated and relevant training. The County should pursue aligning its strategic planning efforts to a Countywide coordinated training program.

Recommendation:

1. Powhatan County should develop a comprehensive training program to be assessed annually. Such assessment will enable the adoption of warranted changes.
2. The Senior Policy Group in collaboration with the Board of Supervisors and County Administration should explore the feasibility of creating a Training Committee from the Senior Policy Group to develop and coordinate the application of a countywide training program.
 - a. The committee should work to enhance efforts of collaborative multi-company training opportunities.
 - b. It is important for the Training Committee to ensure that the necessary training is being offered and with appropriate notice to ensure maximum turnout and return on investment.
 - i. Better coordination and increased local training opportunities will also assist with recruitment and retention efforts for Powhatan County's fire and rescue organizations.
 - c. The County should explore utilizing both traditional classroom platforms as well as distance learning models.
 - i. Online training allows greater flexibility in the application of courses to accommodate the schedule of volunteers.
 - d. The Board of Supervisors should appropriate all the necessary resources to fulfill the County's identified training challenges and fully train existing firefighters and rescue personnel.

²⁵ Leading the Transition in Volunteer and Combination Fire Departments, November 2005

- e. The County should enforce the training requirements and ensure all fire and rescue service providers are competent and capable to perform assigned duties.
3. The Senior Policy Group should encourage all new firefighters be cross-trained as Emergency Medical First Responders, at minimum, to enhance rescue capacity within Powhatan County.
- a. The Emergency Medical Responder/First Responder (EMR/FR) program offered by the Virginia Department of Health (Office of Emergency Medical Services) provides training in emergency care for those who are likely to be the first personnel responding to the scene of an accident, fire, or medical emergency.²⁶
 - b. The course prepares the responder to address the immediate life threats and injuries until more highly-trained personnel are available.
 - c. Having all firefighters obtain a first responder certification will ensure a rapid response in the event of a major medical emergency or trauma.
 - d. The Emergency Medical First Responder classes should be offered in conjunction with each Firefighter I program.

THEME 4: BUDGET AND ADMINISTRATION

The fire and rescue departments in Powhatan County receive funding from state, local and federal avenues to cover expenses. In FY2015, Powhatan County received a total of \$88,854 from the Commonwealth of Virginia's Fire Programs Fund. Powhatan County also receives approximately \$28,780 from the Office of Emergency Medical Services in Four-for-Life funds, which are utilized to fund training, personnel and equipment expenses.²⁷ To supplement operational cost, some fire departments and rescue squads have a fundraising. Powhatan County's overall operating budget, absent of personnel costs is approximately \$451,000.

County Funding and Capital Improvements

All interviewees expressed that the County provides sufficient financial assistance. On behalf of its service providers, Powhatan pays for vehicle fuel, vehicle insurance, building/personal insurance, and facility phone/alarm/internet. The County also pays for unit cell phone and associated rent expenses, if applicable.

Interviewees advised that the County provides their turnout gear and apparatus supplies/equipment. On the EMS side of the organization, the revenue generated by EMS billing pays for their salaries, EMS supplies, ambulance maintenance and fuel. Both groups have sought after and received grants for equipment/supplies. As it relates to a capital improvement

²⁶ Virginia Department of Health (Office of Emergency Medical Services)

²⁷ County Budget – FY15 and FY16

plan, some advised that there is no apparatus replacement plan while others had cited such plan is in place, and were satisfied with the process.

The study committee's review of supporting documents from Powhatan County showed that under FY15 and FY16 budgets, two tankers will be purchased. Moreover, County Administration cited there are funds within the County's capital improvement plan that allocates resources for an EMS transport vehicle. Based on the FY16 capital improvement plan document, there appears to be no capital improvement plan in place for non-county owned facilities with the exception of Fire Station 5.

Further observation revealed the volunteer rescue squads operates eight ambulances, two chase vehicles, a mass-casualty response trailer and a 4-wheel drive vehicle. Four ambulances are co-titled to Powhatan County. All other vehicles are owned by the Volunteer Rescue Squad. EMS supplies are funded by 4-for life monies, supplemented by County Funds. The County pays the volunteer fire and EMS companies a monthly stipend that they refer to as a "rent check" to pay utilities or building maintenance. This amount is based upon the square footage of the volunteer facility and is in addition to other expenses paid directly by the County (insurance, fuel, vehicle maintenance).

Based on the study committee's observation, Powhatan County provides adequate funding and also incurs reasonable amount of expenses for its fire and rescue services. Rescue squads and fire companies are not required to be audited, nor are they required to submit a financial report to the County. Moreover, entities did not provide accurate amount of income raised from fundraising. Over all, the committee observed a lack of budget transparency. Thus, Powhatan County should consider restructuring their funding model to better achieve equitable and performance based budgeting.

Budget transparency should not be perceived negatively or as a method for the County to micromanage its fire and rescue departments. The Board of Supervisors has been trusted by the citizens of Powhatan County to exercise fiscal responsibility and must therefore ensure taxpayers' dollars are spent efficiently. The burden rests with the Powhatan County Board of Supervisors to ensure its limited monies are utilized responsibly and fairly.

Strong accounting practices and accountability measures provide fire and rescue leadership the opportunity to demonstrate its financial needs may be greater than the allocated monies. The Board of Supervisors should require each fire department and rescue squad to annually provide yearly financial compilations. Greater transparency over the budget will provide another venue to eliminate the apparent distrust between the Board of Supervisors and the Fire-Rescue System's leadership. The County should be applauded for the amount of support it provides to its fire and rescue system. However, such support should not come without an accountability system.

Recommendations:

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.

1. Powhatan County should restructure its current funding model so it is able to achieve an equitable and performance based model.
 - a. Powhatan County current funding/support method shows allocation of monies/payment of bills to fire and rescue organization without consideration of performance or call volume.
2. An accountability plan should be developed for County funds. The plan should be communicated to citizens and members of the fire and rescue organizations.
 - a. This accountability plan should be developed with fire and rescue organizations' participation.
 - b. By creating an accountability plan and communicating funding usage, confusion should be reduced among fire and rescue organizations on the usage of limited County funds.
 - c. The County should require documentation of expenditures and annually audit funds.
3. Powhatan County should complete a yearly countywide needs assessment for the delivery of fire and rescue services and develop a base funding allocation system upon the priorities set through the needs assessment and quantitative data.
 - a. Monies should be allocated based on the most critical needs and the highest call volume data.
 - b. It is recommended that the County continuously evaluate whether it is getting the appropriate return on its investments.
 - c. The strategic plan adopted by the Senior Policy Group should serve as a guide for the funding decisions to account for services rendered and equipment deficiencies.
4. With input from the fire and rescue community, the Board of Supervisors should enhance its capital improvement plan for upgrading its fire and rescue stations and equipment.
 - a. Powhatan County should share their current capital improvement plan to its service providers.
 - b. Countywide equipment replacement policy should focus on rotational equipment replacement based on prioritized needs.
 - c. Board of Supervisors should also consider leasing of apparatus or big ticket items as an option.
5. The Powhatan County Board of Supervisors should consider the feasibility of hiring a Grants Coordinator to assist the fire and rescue organizations with the acquisition and

management of grants. This individual should research and consider the availability of all federal, state and private grant programs, including:

- a. The Department of Forestry's Volunteer Fire Assistance (VFA) grants:
<http://www.dof.virginia.gov/financing/grants.htm>
- b. The Department of Forestry's Firewise Virginia Community Hazard Mitigation grants:
www.dof.virginia.gov/financing/mitigation.htm
- c. The Department of Forestry's Dry Hydrant grants:
<http://www.dof.virginia.gov/fire/dryhydrant/index.htm>
- d. The Federal Emergency Management Agency's Assistance to Firefighter Grant (AFG):
<http://www.firegrantsupport.com/content/html/afg/>
- e. The Staffing for Adequate Fire & Emergency Response Grant
<http://www.fema.gov/media-library/assets/documents/101125>
- f. The Virginia Department of Health-Office of Emergency Medical Services' Rescue Squad Assistance Fund (RSAF) Grants: <http://www.vdh.state.va.us/OEMS/Grants/index.htm>
- g. The grant programs offered by the Virginia Fire Services Board (VFSB) through the Virginia Department of Fire Programs (VDFP).²⁸
- h. Various private grant programs.²⁹

Standardization and Central Purchasing

Powhatan County has a widely diverse fleet of apparatus among the fire and rescue organizations. The County appears to have sufficient pieces of equipment in each station to support their call volume throughout the County. As it relates to central purchasing, Powhatan County should be applauded for their effort to work towards centralized purchasing. The study committee observed a centralized purchasing system that is effective and continues to improve with time.

As cited above, for future purchases of apparatus, the County should consider leasing of apparatus as an option. With the current rapid changes in technology, improved safety features and the demands on fire department apparatus, the 20 plus years replacement program may not be the best investment compared to a lease plan.³⁰ Leasing apparatus will allow the locality to expand its budget dollars by paying for apparatus as it uses them. Therefore, Powhatan County will only pay for the time used rather than the full depreciation of the apparatus. A lease program would enable Powhatan to maintain a safe, modern, standardized fleet of apparatus under 10 years old.³¹

²⁸ A listing of available VFSB is available online, http://www.vafire.com/grants_local_aid/index.htm

²⁹ A wide variety of Fire and EMS grants can be found on <http://www.grants.gov/> <http://www.firegrantshelp.com/nvfc/> and <http://www.emsgrantshelp.com/>

³⁰ Cimini, "Alternative apparatus purchasing" 2011

³¹ Ibid

Recommendation:

1. Powhatan County should continue utilizing centralized purchasing with an emphasis on enhancing the process.
2. Explore utilizing a lease program for apparatus.
 - a. Leasing apparatus will provide fire departments to have modern and standardized fleet under 10 years old.
 - b. The option gives fixed budget expenditure for the term of the lease.
 - c. Lease plans offer savings by reducing repair costs.
3. The County should continue its efforts in identifying specifications for future apparatus purchases (considering the cost-effectiveness of regional contracts), refurbishment and replacement using the following national consensus standards:
 - a. NFPA 1901 - Standard for Automotive Fire Apparatus³²
 - b. NFPA 1911 – Standard for Inspection, Maintenance, Testing and Retirement of In-Service Automotive Fire Apparatus³³
 - c. NFPA 1912 – Standard for Fire Apparatus Refurbishing³⁴

THEME 5: DELIVERY OF SERVICES

In the planning of new fire stations or if the County seeks to hire paid firefighters to augment volunteer firefighters, it should pay close attention to deployment components. Such component needs to be analyzed, not only by itself, but also as a part of the larger more complex deployment of the entire system. All decisions have at least some impact on the next. Therefore, the study team recommends using information technology via a deployment program to improve services to citizens that will also address NFPA 1720 (or 1710 for paid firefighters). Deployment software is the cutting edge technology for the fire service with a direct benefit to the citizens to improve services at the best possible cost.

1. Powhatan County should research deployment software and determine which will meet its needs.
 - a. Many of the deployment software solutions have diverse features and capabilities intended to deliver efficient deployment within urban/suburban/rural areas.

Operations and Staffing

³² NFPA 1901, <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1901>

³³ NFPA 1911, <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1911>

³⁴ NFPA 1912, <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1912>

According to the 2014 Virginia Fire Service Needs Assessment, Powhatan County reported that it has 200 volunteer firefighters and with the present call volume it warranted 25 additional personnel to sufficiently staff their stations.³⁵ The study committee observed that most departments have enough personnel to provide adequate services on weekends, some holidays, and afternoons or nights. However, it did not have sufficient coverage during the day, similar to other localities in Virginia.

In regards to paid firefighters, most volunteers favored the concept. The interviewees cited that having full-time firefighters on staff during the day would be beneficial to Powhatan County. However, the County Government emphasized it must conduct a cost benefit analysis to assess whether the County can afford paid firefighters. During the interview with the County Government, the study committee was informed that the County's fire services currently meet the NFPA 1720 standard. Lastly, the locality indicated that it will hire one part time Fire Marshal and one EMS Coordinator in FY16 to improve its level of service. A full review of full time/part-time or contract staff, is under review for the FY17 budget.

Recruitment and Retention

Recruiting and retaining quality personnel is an essential component to the overall success of volunteer fire and rescue departments. Powhatan County has felt some impact of declining numbers of men and women volunteering for fire and rescue departments. Relative to its counterparts around the state, Powhatan County is doing very well maintaining sufficient personnel on its rosters. However, recruitment and retention can be improved.

The number one concern among all fire and rescue squads' personnel was the need to see a volunteer recruitment and retention program facilitated by the County. This program would be one that will provide personnel countywide. Currently, each entity utilizes only word-of-mouth for all its recruitment efforts. The lack of consistent assistance from the County to help the fire and rescue organizations recruit personnel has placed some level of stress on service providers.

During the visit, the study committee was advised of the County's effort to start a Junior Emergency Technician (JET) program. The County also cited that it was seeking to utilize the National Volunteer Fire Council recruitment materials and would post an announcement/advertisement on its website (<http://makemeafirefighter.org>). Those efforts are great, thus the County should continue it and must provide increased leadership and participation towards the countywide recruitment of volunteers.

Powhatan County relies heavily on its volunteers and must become more actively involved in assisting each volunteer department with their recruitment and retention efforts. Interviewees shared that it would like to see the County offer an incentive program for firefighters such as pay per-call, or offer County or some type of tax incentive. The Senior Policy Group should

³⁵ See Appendix 4: 2014 Virginia Fire Service Needs Assessment.

encourage leaders to contribute to other aspects of the community thus enabling them to become ambassadors of the department.³⁶

Recommendations:

1. Working alongside the Senior Policy Group, the County Government should identify the needs for additional fire and rescue personnel to meet the service demands and citizen expectations.
 - a. Through improvement of fire and rescue incident data analysis and strategic planning, Powhatan County should be able to determine fire and rescue personnel needs, equipment needs and deployment.³⁷
2. The Senior Policy Group and County Government should adopt an official countywide recruitment and retention program.
 - a. This recruitment and retention program should take into consideration the needs of current volunteers and identify motivational factors to keep this population engaged and committed to the fire and rescue service.
 - b. The County should set annual recruitment and retention goals and concentrate its efforts and resources to achieving these benchmarks. The plan should be included in the strategic plan.
 - c. The Board of Supervisors should consider creating an incentive package in consultation with the Senior Policy Group.
3. The County Government and Senior Policy Group should collaboratively find low-cost methods to enhance public-education efforts such as open houses and creating PSAs.³⁸
 - a. Improve the visibility of the Powhatan County fire and rescue services in the community.
 - b. Continued use of word-of-mouth recruiting is effective. Each volunteer should be encouraged to inform their respective community network about Powhatan fire and rescue services' training and educational opportunities.
4. In addition, Powhatan County's fire and rescue organizations should take advantage of pre-existing recruitment and retention information. Resources may be downloaded at the following locations:
 - a. Emergency Medical Services (EMS)

³⁶ *Fire Service Image Task Force Report: Taking Responsibility for a Positive Public Perception* 15
International Association of Fire Chiefs

³⁷ International Association of Fire Chiefs (IAFC) - "Make Better Decisions: Put Your Data to Work,"
<http://www.iafc.org/MemberCenter/OnSceneArticle.cfm?ItemNumber=5840>. This article provides an example of how multiple sources of data can be incorporated into fire and rescue department planning.

³⁸ *Fire Service Image Task Force Report: Taking Responsibility for a Positive Public Perception* 15

- i. <http://www.vdh.virginia.gov/OEMS/Agency/Recruitment/index.htm>
- ii. http://www.vdh.state.va.us/OEMS/Files_page/Locality_Resources/EMSWorkbook_0405.pdf
- iii. http://www.vdh.state.va.us/OEMS/Files_page/Locality_Resources/EMSWorkbook3.pdf
- b. BecomeEMS.org - <http://www.becomeems.org/>
- c. Fire/Volunteer (Guide) - <http://www.nvfc.org/resources/rr/retention-recruitment-guide/>
- d. Fire/Volunteer (Video) - <http://www.nvfc.org/files/documents/Retention-and-Recruitment-Volunteer-Fire-Emergency-Services.wmv>.
- e. 2004 Joint Legislative Audit and Review Commission Report. "Review of EMS in Virginia" Part III of the report; *Recruitment, Retention and Training of EMS Providers* (Page 55) –
<http://leg2.state.va.us/dls/h&sdocs.nsf/4d54200d7e28716385256ec1004f3130/87c75ac37063994d85256ec500553c41?OpenDocument>

REFERENCES

- Association of Public Safety Communication Officials (APCO). (2012) Project RETAINS Toolkit 2.0 Retrieved on August 4, 2015 from <http://www.apco911.org/resources/retains/retains-toolkit-20.html>.
- Board of Housing and Community Development. (2009) Statewide Fire Prevention Code. Retrieved on August 4, 2015 from: <http://www.dhcd.virginia.gov/StateBuildingCodesandRegulations/PDFs/2009/Code%20-%20SFPC.pdf>.
- Bryson, J. (2004). *Strategic planning for public and non-profit organization*. (3rd ed.). San Francisco: John Wiley and Sons, Inc.
- Code of Virginia. Title 27, Chapter 1, § 27.2: Contracts of cities or towns to furnish fire protection; emergency medical services. Retrieved on August 8, 2015 from <http://lis.virginia.gov/cgi-bin/legp604.exe?000+cod+27-2>
- Code of Virginia. Title 27, Chapter 1, § 27.3: Contracts of cities or towns to furnish fire protection; emergency medical services. Retrieved on August 8, 2015 from <http://lis.virginia.gov/cgi-bin/legp604.exe?000+cod+27-3>
- Cimini, D. (2011, October 14). Alternative apparatus purchasing. Retrieved August 27, 2015.
- Federal Emergency Management Agency. (May 2013). Incident Command System (ICS) Overview. Retrieved on August 16, 2015 from <http://www.fema.gov/incident-command-system>.
- Federal Emergency Management Agency: United States Fire Administration. (1999) Guide to Developing Effective Standard Operating Procedures for Fire and EMS Departments. Retrieved on August 16, 2015 from <http://www.usfa.fema.gov/downloads/pdf/publications/fa-197-508.pdf>.
- Gordon, G. (2005). *Strategic planning for local government*. (2nd ed., p. 49). Washington, D.C.: International City/County Management Association.
- Insurance Services Office (ISO). (2012) Fire Suppression Rating Schedule. Retrieved on August 16, 2015 from <http://www.iso.com/Products/Public-Protection-Classification-Service/Fire-Suppression-Rating-Schedule-FSRS-manual-for-PPC-grading.html>
- International Fire Chiefs Association: Taking responsibility for a positive public perception. (2013) Fire and Emergency Service Image Task Force. Retrieved on August 8, 2015 from <http://www.iafc.org/files/1DEPTadmin/TakingResponsibility4PositivePublicPerception.pdf>.

- International Fire Chiefs Association: Volunteer and Combination Officers Section. (2005) Leading the Transition in Volunteer and Combination Fire Departments. Retrieved on August 23, 2015 from http://www.iafc.org/files/1VCOS/vcos_RibbonReportRed.pdf.
- International Fire Chiefs Association: Volunteer and Combination Officers Section. (2004) Preserving and Improving the Future of the Volunteer Fire Service. Retrieved on August 16, 2015 from http://www.iafc.org/files/1VCOS/VCOS_Blue_Ribbon_Report.pdf.
- National Emergency Numbers Association (NENA). (2011) NENA Standard 56-002: 9-1-1 Call Answering Standard. Retrieved on August 16, 2015 from <http://www.nena.org/?page=911CallAnswerStd>.
- National Fire Protection Association (NFPA). (2010). NFPA 1221: Standard for the Installation, Maintenance and Use of Emergency Services Communication Systems. (2010 Edition). Retrieved on August 16, 2015 from <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1221>.
- National Fire Protection Association (NFPA). (2008). NFPA 1720: Standard on Fire Department Safety Officer (2008 Edition). Retrieved on August 16, 2015 from <http://www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=1521>
- National Fire Protection Association (NFPA). (2010). 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 (2010 Edition). Retrieved on August 16, 2015 from <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1720>.
- National Fire Protection Association (NFPA). (2009). NFPA 1901: Standard for Automotive Fire Apparatus (2009 Edition). Retrieved on August 16, 2015 from <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1901>.
- National Fire Protection Association (NFPA). (2012). NFPA 1911: Standard for Inspection, Maintenance, Testing and Retirement of In-Service Automotive Fire Apparatus (2012 Edition). Retrieved on August 21, 2015 from <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1911>.
- National Fire Protection Association (NFPA). (2011). NFPA 1912: Standard for Fire Apparatus Refurbishing (2011 Edition). Retrieved on August 16, 2015 from <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1912>.
- National Fire Protection Association (NFPA). (2013). NFPA 1971: Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting (2013 Edition).

Retrieved on August 16, 2015 from
<http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1971>.

National Fire Protection Association (NFPA). (2013). NFPA 1981: Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services (2013 Edition). Retrieved on August 16, 2015 from
<http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1981>.

Moore, M. (1995). *Creating public value: Strategic management in government*. (pp. 160-165). Cambridge, Massachusetts: Harvard University Press.

Shouldis, W. (2005, July). Officer development on a budget. *Fire Engineering*, 158(7), 69-72.

Ten Years After 9/11: Improving Emergency Communications: Hearing before the U.S. Senate Homeland Security and Governmental Affairs Committee, 112th Congress (July 27, 2011). Testimony of Greg Schaffer (Department of Homeland Security).

United States Census Bureau. (October 22, 2013) Powhatan County Quick Facts. Retrieved on August 22, 2015 from: <http://quickfacts.census.gov/qfd/states/51/51195.html>.

Virginia Department of Health (2013). *Ems training programs summary*. Retrieved on August 16, 2015 from <http://www.vdh.state.va.us/OEMS/Training/tprog.htm>

Virginia Economic Development Partnership. (July 2012) Community Profile: Powhatan County, Virginia. Retrieved on August 16, 2015 from
<http://viriniascan.yesvirginia.org/communityprofiles/createPDF.aspx?src=map2&id=5>

Virginia Employment Commission. (May 30, 2013) Powhatan County Community Profile. Retrieved on August 17, 2015 from
http://virinialmi.com/report_center/community_profiles/5104000009.pdf

Virginia Fire Services Board. (2013). Fire and Emergency Medical Services Self-Assessment Questions. Virginia Department of Fire Programs: Glen Allen, VA.

Waters, Michael. *Make Better Decisions: Put Your Data to Work*. International Fire Chiefs Association on Scene (April 2012 Edition). Retrieved on August 16, 2015 from
<http://www.iafc.org/MemberCenter/OnSceneArticle.cfm?ItemNumber=5840>.

APPENDIXES

Appendix 1: Powhatan County Letter of Request – December 2014

Appendix 2: Powhatan County - Virginia Fire Incident Reporting System Report Summary

Appendix 3: Powhatan County – Virginia Pre-Hospital Information Bridge Report Summary

Appendix 4: Powhatan County 2014 Needs Assessment Summary Statistics

Appendix 5: Powhatan County FY2015 Aid-to-Localities Allocation Report

APPENDIX 1: POWHATAN COUNTY LETTER OF REQUEST

Board of Supervisors:
Carson L. Tucker, Chair
David T. Williams, Vice-Chair
Barry C. Hodge
William E. Melton
Jason Moore
County Administrator
Patricia A. Weiler

THE COUNTY OF
POWHATAN
VIRGINIA

3834 Old Buckingham Road, Suite A
Powhatan, Virginia 23139
Tel 804-598-5612 Fax 804-598-7835
Website: www.powhatanva.gov

December 4, 2014

Chief Walter Bailey
Chairman
Virginia Fire Services Board
C/O: Mohamed Abbamin, MPA
Virginia Department of Fire Programs
1005 Technology Park Drive
Glen Allen, VA 23059

RE: Fire Study Request for Powhatan County

Dear Chief Bailey:

Pursuant to a unanimous vote on Monday, December 1, 2014, the Powhatan County Board of Supervisors hereby requests that the Virginia Fire Services Board, under Code of Virginia § 9.1-203, conduct a study of the Fire and EMS services within Powhatan County. Powhatan County Administration recently appointed a new Fire and EMS Chief and Emergency Management Coordinator, Steven A. Singer, and is looking forward to using this study as its guide to the future of emergency services within Powhatan County and our Region.

If there are any further suggestions, questions or concerns, please contact Ms. Patricia A. Weiler, County Administrator, at (804) 598-5612 or Chief Singer, at (804) 598-5646.

Sincerely,



Carson L. Tucker
Chairman, Powhatan County Board of Supervisors

cc: Powhatan County Board of Supervisors
Patricia A. Weiler, Powhatan County Administrator
Chief Steven Singer, Powhatan County Fire and EMS Chief

APPENDIX 2: POWHATAN COUNTY – VIRGINIA FIRE INCIDENT REPORTING SYSTEM REPORT

The Virginia Department of Fire Programs manages the Virginia Fire Incident Reporting System (VFIRS). VFIRS is the statewide system for tracking all emergency responses with fire departments in Virginia. By reporting their incidents to VFIRS, fire departments document the details of their incidents for legal purposes and documenting the overall activities of their fire department.

Incident Type Summary, Powhatan County, Virginia 2010 -2014*

Incident Type	2010	2011	2012	2013	2014	Grand Total
Fires	99	99	95	108	105	506
EMS/Rescue	673	667	712	701	736	3,489
Hazardous Condition	73	112	141	198	98	622
Service Calls	67	70	98	128	107	470
Good Intent	180	304	453	497	585	2,019
False Alarm	112	82	103	87	88	472
Other	21	27	25	84	22	179
Total Incidents	1,225	1,361	1,627	1,803	1,741	7,757
Aid Given	111	139	172	201	165	788
Exposures	1	3	5	5	8	22
Grand Total	1,337	1,503	1,804	2,009	1,914	8,567

Fire Dollar Loss Summary, Powhatan County, Virginia 2010-2014*

Year	2010	2011	2012	2013	2014	Grand Total
Dollar Loss	\$851,151	\$263,152	\$525,455	\$1,555,861	\$1,745,750	\$4,941,369

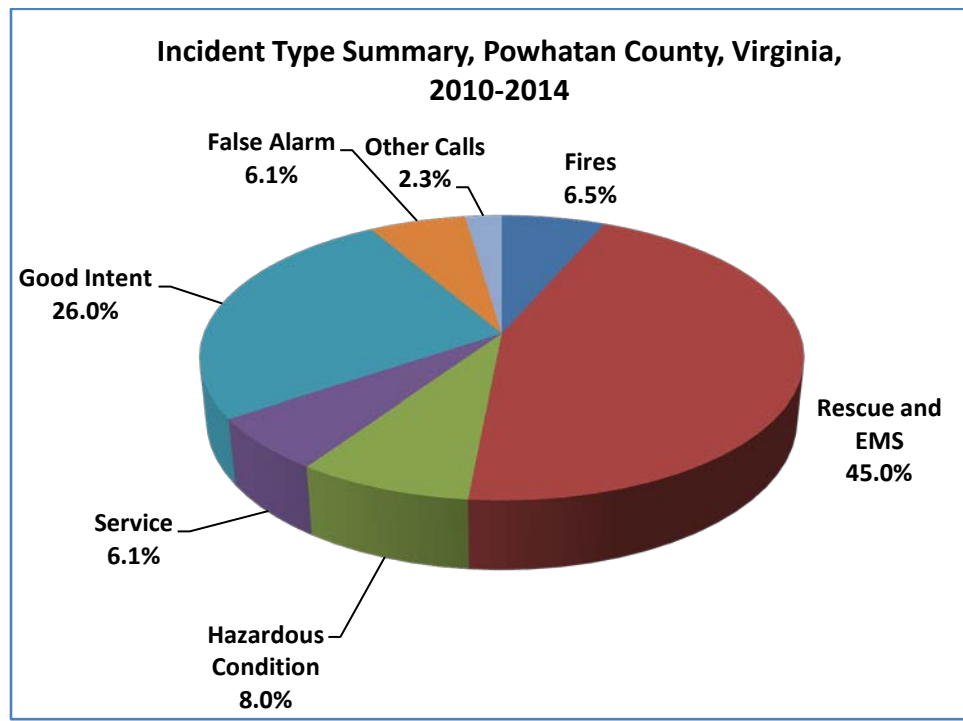
Casualty Loss Summary, Powhatan County, Virginia 2010-2014*

Incident Type	2010	2011	2012	2013	2014	Total
Civilian Fire Injuries	1	0	0	1	7	9
Civilian Fire Deaths	0	0	0	0	0	0
Fire Service Injuries	0	1	0	5	4	10
Fire Service Deaths	0	0	0	0	0	0

APPENDIX 2: POWHATAN COUNTY – VIRGINIA FIRE INCIDENT REPORTING SYSTEM REPORT

VFIRS Participation By Fire Department, Powhatan County, Virginia 2010-2014*

Fire Department	2010	2011	2012	2013	2014
Powhatan Co. Vol. Fire Dept., Co. # 1	Yes	Yes	Yes	Yes	Yes
Huguenot Vol. Fire Dept.	Yes	Yes	Yes	Yes	Yes
Macon Fire Dept.	Yes	Yes	Yes	Yes	Yes
Fine Creek Vol. Fire Dept.	Yes	Yes	Yes	Yes	Yes
Deep Creek Vol. Fire Dept.	Yes	Yes	Yes	Yes	Yes
Total Fire Departments Participating	5	5	5	5	5
Percent Reporting	100%	100%	100%	100%	100%



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.

APPENDIX 3: POWHATAN COUNTY – VIRGINIA PRE-HOSPITAL INFORMATION BRIDGE REPORT

SUMMARY

The Virginia Department of Health's Office of Emergency Medical Service manages the Virginia Pre-Hospital Information Bridge (VPHIB). VPHIB is the statewide system for tracking all emergency medical services (EMS) responses with EMS organizations in Virginia. In accordance with the *Code of Virginia*, "Maintaining a comprehensive emergency medical services patient care data collection and performance improvement system (32.1-111.3)."

APPENDIX 3: POWHATAN COUNTY – VIRGINIA PRE-HOSPITAL INFORMATION BRIDGE REPORT

SUMMARY, CONT:

Powhatan County	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Year	Grand
	2015	103	91	90	71	76	82							513	2015	
Powhatan County	2014	77	58	86	74	94	81	92	96	100	72	69	98	997	2014	
Fire Dept	2013	79	65	70	52	77	82	91	79	73	63	66	63	860	2013	
701	2012	73	79	75	99	88	80	54	76	84	83	55	89	935	2012	3305

Powhatan Volunteer	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Year	Grand
Rescue Squad	2015	190	184	180	163	180	218							1115	2015	
190	2014	160	143	182	179	218	192	197	205	207	189	170	192	2234	2014	
	2013	184	147	156	162	179	177	164	168	177	145	168	185	2012	2013	
	2012	175	171	163	155	175	166	181	171	190	187	168	186	2088	2012	7449

APPENDIX 4: POWHATAN – 2014 NEEDS ASSESSMENT SUMMARY STATISTICS

The Fire Service Needs Assessment is an annual survey conducted by the Virginia Department of Fire Programs. Fire departments complete a survey questionnaire designed to identify their critical needs. Results are compiled and published in a comprehensive report available each January. The Department of Fire Programs received responses from all seven fire departments located in Powhatan County.

Fire Department Personnel	Current*	Need Reported**
Career Firefighters	0	0
Volunteer Firefighters	200	25
Paid-Per-Call	0	
Total Firefighters	200	
Civilian-Paid	1	0
Civilian-Volunteer	0	0
Total Civilian Personnel	1	

*Taken from Supplemental Table 1 of the 2014 Virginia Fire Service Needs Assessment.

**Number from Supplemental Table 7, means needed on top of the total column.

Apparatus Owned	Current*	Need Reported **
Aerial Apparatus	0	1
Ambulance/Other Patient Transport	0	0
Command Support Unit	8	0
Command Vehicle (SUV)	2	0
Engine/Pumper	7	0
Fire/Rescue Boat	0	0
Hazardous Materials Vehicle	0	0
Heavy Technical Rescue Vehicle	1	0
Logistical Support Apparatus	0	0
Quint Combination Vehicle	0	0
Tanker	5	2
Wildland Brush Truck	4	0
Other Apparatus	2	0

*Taken from Supplemental Table 2

**Taken from Supplemental Table 5

APPENDIX 4: POWHATAN COUNTY – 2014 NEEDS ASSESSMENT SUMMARY STATISTICS CONT.

Equipment Owned	Current*	Need Reported **
4-Gas Monitors	6	0
Map Coordinate System – GPS	1	0
Mobile Data Terminals	5	8
Personal Alert Safety Systems	0	0
Personal Protective Equipment	200	25
Radios with Emergency Alert Button	50	0
Radios without Emergency Alert Button	0	0
Self-Contained Breathing Apparatus (without integrated PASS)	0	0
Self-Contained Breathing (with integrated PASS)	61	0
Thermal Imaging Cameras	6	0
Other Equipment	0	0

*Taken from Supplemental Table 3

**Taken from Supplemental Table 6

APPENDIX 5: POWHATAN COUNTY FY2015 AID-TO-LOCALITIES ALLOCATION REPORT

Description	Population (2010 Census)	FY2015 Allocation
Powhatan County	28,046	\$ 88,854
Total	28,046	\$ 88,854

*** VDFP ATL Annual Report*