A Report of Findings and Recommendations:

Essex County Fire & EMS Study

May 2015

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Tappahannock-Essex Volunteer Fire Department
- Station 1
- Station 2
- Station 3

Rescue Squad
EMS Station

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.

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EXECUTIVE SUMMARY

This report documents the findings and recommendations for the Essex 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 Essex 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 Essex County.

The study was requested by the Essex 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 and Operational 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 Essex County.

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

Theme 1: Organizational and Operational Development *(Page 12)*
- *Centralized Authority for Fire and Rescue Services:* The County should establish founding ordinances pertaining to Fire and Rescue in order to acknowledge or explicitly outline role/responsibility of the Emergency Management Group and the Emergency Services Manager.
- *Strategic Planning*: The County's fire and rescue organizations should develop a data-driven Strategic Plan with stakeholder input.
  - Essex County should create a mission and a vision for the system that includes all fire & EMS responders' participation and input.
- *Continuity of Leadership and Succession Planning:* Essex 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 Essex County Department of Emergency Services should improve its current standard operating procedures to formally reflect countywide standard guidelines.
- *Fire Prevention Activities:* The County should enact the Statewide Fire Prevention Code through a local ordinance. Additionally, the County should enforce the Statewide Fire Prevention Code; potential methods of enforcement are included herein.

Theme 2: Communications *(Page 19)*
- *Levels of Interdepartmental Communications:* Essex County should host a strategic communication session to resolve challenges between the Essex County Board of Supervisors, the County Administration and members of the volunteer fire and rescue departments including the Emergency Manager's Group.
- *Improved Dispatch System:* Essex County needs to upgrade its entire communication system and set it in a secure facility.
  - The current dispatch center's location does not meet the entities' needs. Therefore, it is recommended that it be relocated to a secure location.
  - The Essex County Board of Supervisors should appoint an Emergency Communications Advisory Committee from the Emergency Management Group and Emergency Services Manager or outside party to thoroughly analyze the County's overall dispatch system.
- *Regional Dispatch Center*: Essex County should consider opportunities to participate in regional dispatch center as potential cost effective alternative.

Theme 3: Training *(Page 23)*
- *Coordinated Training Program:* Essex County government should work with the Emergency Management Group in improving the current training program to address the comprehensive training needs of the entire County.
  - Collaborative training promotes teamwork and can assist with personal communication and interpersonal relations between the career staff and volunteers personnel.
- *Airport Training*: The County should make recurring collaborative trainings at the airport a priority.

Theme 4: Budget and Administration *(Page 25)*
- *Financial Accountability:* A formal financial accountability system should be developed for funding disbursement. The plan should be communicated to citizens and members of the fire and rescue organizations.
- *County Funding and Capital Improvements:* With input from the Emergency Management Group, the Board of Supervisors should develop an efficient capital improvement plan for upgrading its fire and rescue stations and equipment.
- *Standardization and Central Purchasing:* Working with the Emergency Management Group, the County Administration should develop and implement a centralized

purchasing option to establish equipment and apparatus standardization and reduce operational expenses.

- *Future Fire and Rescue Locations:* Essex County should explore efforts to plan for future fire and rescue station locations in its comprehensive plan.

Theme 5: Delivery of Services *(Page 29)*

- *Recruitment and Retention:* Essex County should continue its current recruitment and retention efforts. The recruitment system presently utilized is effective and creative.
- *Extend Use of Qualified Personnel:* County personnel who are also fire qualified should have regular integrated training with the volunteer fire department staff, including potential for pulling a periodic (example quarterly) duty shifts with the Fire Department.
- *Operations and Staffing:* Essex County should keep accurate records of incident response times in order to continuously assess response capabilities.
- *Emergency Operations Plan:* The County should expedite restructuring the Emergency Operations Plan and begin regular training in support of the 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 Essex 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 Essex County's study project manager and point-of-contact, James Brann. Mr. Brann is currently the Emergency Services Manager for Essex County.

Mr. Brann 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 each of Essex County's Fire and Rescue organizations along with County Administrator Reese Peck, Director of Emergency Services and Board of Supervisors member Margaret Davis and Sheriff Staley Clarke

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 throughout Essex County in an effort to supplement 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 Essex 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, James Brann to ensure the content is factually 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

Essex County lies on the beautiful Rappahannock River in Virginia's Middle Peninsula and is centrally situated just between the Washington and Norfolk urban crescents. The county's location on a navigable river enables easy water access to the Chesapeake Bay and its tributaries and the port complex at Hampton Roads. The incorporated town of Tappahannock is the county seat and serves as the employment and population center for the community[1].

The population of Essex County is 11,151 with a median age of 45 years old.[2] The median household income is $44,885. While Essex County is home to diverse economic activities, the unemployment rate for Essex County was 6.4 percent in 2014.

Agriculture and forestry are major contributors to the overall economy in Essex County. According to the Economic Impacts of Agriculture and Forestry Industries in Virginia, the direct economic impact of agriculture and forestry-related industries in Essex County was $68.2 million during 2011.[3] According to Virginia Employment Commission data, the other leading employment industries include retail, health care, government, manufacturing and tourism.[4]

The fire and rescue services of Essex County are provided by a dedicated group of volunteers, with emergency medical services/firefighter personnel. Collectively, these organizations provide firefighting and emergency medical services from stations located throughout the county. During 2014, Essex County first responders answered approximately 181 fire and emergency medical services (EMS) calls.[5]

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

- Essex County Emergency Medical Services
- Tappahannock Volunteer Rescue Squad
- Tappahannock-Essex Volunteer Fire Department

The Essex County Emergency Medical Services (EMS) was established in 2011 as part of a collaborative effort to improve the emergency medical care to the citizens and visitors of Essex County. To supplement ambulance staffing that Tappahannock Volunteer Rescue Squad has provided since its establishment in 1952, Essex County hired full-time and part-time Advanced Life Support (ALS) providers to maintain continuity of services to the community. The rescue squads within the County are certified to a minimum of the Basic Life Support (BLS) level as well as being cross-trained in firefighting.

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[1] Living in Essex,
[2] U.S. Census Bureau: State and County QuickFacts.
[3] Economic Impacts of Agriculture and Forest Industries in Virginia
[4] VEC Community Profile: Essex County
[5] Virginia Fire Incident Reporting System (VFIRS) Appendix 2

The Tappahannock-Essex Volunteer Fire Department, Inc. is a rural fire department of 60 members dedicated to the fire prevention, and suppression of fires in the town and county. The Fire Department covers an area of 261 square miles and provides fire protection to approximately 5,765 housing units[6]. The mission of the Tappahannock Essex Volunteer Fire Department is to provide the highest level of emergency services, non-emergency services, and strategic programs designed to protect the lives, property, and economic well being of the citizens and visitors of Essex County Virginia. Members are responsible for fire suppression and provide an array of additional emergency services to the residents of Essex County.   They include light and heavy rescue, vehicle extrication, water rescue, hazardous materials, and other non-emergency activities.

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[6] U.S. Census Bureau: State and County QuickFacts.

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 and Operational Development (Page 12)
- Centralized Authority for Fire and Rescue Services
- Strategic Planning
- Continuity of Leadership and Succession Planning
- Accountability Practices
- Fire Prevention Activities

Theme 2: Communications (Page 19)
- Levels of Interdepartmental Communications
- Improved Dispatch System
- Regional Dispatch Center

Theme 3: Training (Page 23)
- Coordinated Training Program
- Airport Training

Theme 4: Budget and Administration (Page 25)
- County Funding and Capital Improvements
- Standardization and Central Purchasing
- Future Fire and Rescue Locations

Theme 5: Delivery of Services (Page 29)
- Recruitment and Retention
- Operations and Staffing
- Emergency Operations Plan

Essex County's fire and rescue service providers and administration should utilize the national consensus standards. The standards were developed by the National Fire Protection Emergency Management Group (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.[7]

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[7] For a complete listing of the national consensus standards developed by the National Fire Prevention Emergency Management Group, visit: http://www.nfpa.org/aboutthecodes/list_of_codes_and_standards.asp

THEME 1: ORGANIZATIONAL AND OPERATIONAL DEVELOPMENT

There are various limitations within Essex County's communication and coordination between the four major public safety disciplines (Law Enforcement, Emergency Management, Fire and EMS) and its County leadership. Part of this issue occurs due to the lack of clarity in the organizational structure. Presently, there is no coordinated Essex County Fire-Rescue System, but rather two entities (Rescue and Fire) working alongside one another. With respect to organizational structure, Essex County's Emergency Management is led by an Emergency Services Manager. This individual has authority over the Essex County Emergency Medical Services and the Tappahannock Volunteer Rescue Squad while Tappahannock-Essex Volunteer Fire Department which consists of a main Fire Department and two substations report directly to one countywide Chief and Deputy Chief. In some instances these working relationships are positive and productive, but often there appears to be competing interests which are detrimental to long-term benefits.

Disorganization negatively affects the service delivery to residents of Essex County and its visitors. Additionally, the confusion over the current organizational structure creates liability issues for the County. In order to improve Essex County's level of service, it is recommended that internal organizational development strategies be considered. This recommendation encourages organizational cohesion, innovation, and effectiveness while guiding the inevitable change that will occur as Essex County strengthens its fire suppression and rescue capabilities.

Based on conversations, the study team was advised that members of the Board of Supervisors collectively do not have a unified vision for fire and rescue services. The Board of Supervisors and Tappahannock Town Council need to provide overall support and high level objectives for the Emergency Management Group. The Group needs to provide regular communication back to both governing bodies on how they are meeting those objectives and/or why they are not being met.

Centralized Authority for Fire and Rescue Services

During the site visit, numerous contradicting comments have been made in regards to the level of authority the Emergency Service Manager and Fire Chief have in Essex County. Moreover, there are also misunderstandings regarding the role and responsibilities of the two aforementioned positions. The study team recommends Essex County to adopt an ordinance clarifying the authority of the Emergency Services Manager and the Emergency Management Working Group. The ordinance should further clarify the Sheriff's authority as it relates to emergency communications and dispatch.

Essex County should be applauded for their effort to form an Emergency Management Working Group. However, the team was advised that the entity is not recognized by the county code and is therefore perceived to be unofficial. The study team recommends that the County and Members of the Emergency Management Working Group collaboratively modify the organizational structure of Essex County Rescue and Fire (EMS/Fire). It is recommended that

either one Director of Emergency Services with authority over fire and rescue be established or re-organize the current Emergency Management Group to allow some level of decision-making capacity which represents stakeholders.

In regards to the Emergency Work Group, membership should seek participation from one member from each of the volunteer departments and EMS along with one representative from the Sheriff's Office. The name of the Emergency Management Group should be decided by the entities involved. Lastly, the County should pursue establishing an ordinance pertaining to fire and rescue in order to establish an Emergency Management Group or as mentioned above, and establish Director of Emergency Services with authority over Fire and EMS.

Recommendations:

1. The County should consider creating either one Director of Emergency Services with authority over fire and rescue or re-organizing the Emergency Management Group.

    a. This individual would assist as the central position responsible for the supervision and authority for all fire and rescue issues throughout the County.

    b. The position will work on training, grants and ensuring there is effective communication Countywide.

2. The County should establish founding ordinances pertaining to Fire and Rescue in order to acknowledge or explicitly outline role/responsibility of the Emergency Management Group.

    a. The Group should be recognized by the County's code and should include the Sheriff and County Administrator.

    b. The Group should meet monthly on a standard date and time without exception; bylaws must be drafted in such a way that any member shall have the ability to place items on the agenda.

    c. The Group should be co-chaired by a representative from the volunteer members, chosen by them, and the Emergency Services Manager and co-chairs should alternate serving as presiding officer every other month

    d. The Group should be charged with developing, analyzing, enacting and enforcing system-wide policies, system-wide operational decisions and specifications, and planning and procedures as may be adopted by this group.

Strategic Planning

Essex County's fire and rescue organizations acknowledged the need for improved fire and rescue coordination. The current organizational structure does provide an informal division of

labor. However, since the process is not written, it has the potential to negatively affect the overall morale of the County's fire and rescue organizations.

The first step to bringing clarity to the fire and rescue services organizational structure is to pursue the establishment of a Strategic Plan. Planning must become institutionalized as an integral part of fire and rescue departments and community resource allocations. [8] A strategic plan will provide a basis for long-term operational planning and will serve as a framework for services.[9] The strategic plan will further allow the vested parties the opportunity to create effective policies while 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.[10] The strategic planning process will create public value for Essex 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.[11]

Recommendations:

1. Working with the Emergency Management Group, the Essex County Board of Supervisors, Emergency Services Manager and County Administrator should create and implement a strategic plan to increase performance levels. This plan should be presented to the Board of Supervisors for review and formal approval.

    a. Stakeholders such as fire and rescue personnel along with county government must each play an integral part in the development of this strategic plan in order to meet the county'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 such gap.

    c. The County should seek to reduce residents insurance cost by incorporating methods for improving their Insurance Service Office (ISO) rating into the strategic plan.

    d. It is suggested that a neutral party facilitate this process.

2. In developing its strategic plan, Essex County's fire and rescue organizations, and stakeholders should establish a mission statement and further establish a unified vision for fire and rescue services in the County.

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[8] Preserving and Improving the Future of the Volunteer Fire Service, March 2004
[9] Leading the Transition in Volunteer and Combination Fire Departments, November 2005
[10] Mark Moore, *Creating Public Value: Strategic Management in Government*, 1995
[11] Ibid

a. A unified vision statement will provide the fire and rescue organizations and Essex County a broad, inspirational image of the County's future fire and rescue services.

b. During the strategic planning process, stakeholders within the fire and rescue services must participate in developing the mission and vision statements of the county. The participation of fire and rescue organizations during this process will ensure that the entities involved are collectively moving forward to improve service delivery.

3. The strategic plan should further create a system of measurable goals and objectives. The performance measurement's factors will strengthen the strategic plan.

   a. The strategic plan should identify immediate, intermediate and long-term goals with reasonable target deadlines.

   b. Goals and objectives should be quantifiable, consistent, realistic and achievable.[12]

4. In developing its strategic plan, Essex 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. Essex 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.

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

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[12] Leading the Transition in Volunteer and Combination Fire Departments, November 2005

plan.[13] Essex County will have the opportunity to evaluate its mission, vision and performance objectives through three perspectives: financial accountability, constituent priorities and internal processes.[14]

Continuity of Leadership and Succession Planning

The Emergency Management Group and County Government should consider developing a continuity of leadership or succession planning program to focus on training and 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 Essex County fire and rescue services by providing formal program to develop and enhance the future potential of personnel.

Recommendations:

1. Essex 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, Prevention, Operations and Safety, interpersonal skills and problem resolution. [15]

   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.

2. The County should consider establishing a mentoring program for company and officer levels.

   a. This approach would further assist with the succession planning.

Accountability Practices

According to the National Fire Protection Emergency Management Group (NFPA), a standard operating procedure is "an organizational directive that establishes a standard course of action."[16] Thus, Standard Operating Procedures (SOPs) are written guidelines that explain what

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[13] Gerald Gordon, *Strategic Planning for Local Government*, 2005
[14] Ibid
[15] William Shouldis, *Officer Development Programs on a Budget*, 2008
[16] Developing Effective Standard Operating Procedures for Fire and EMS Departments, December 1999

is expected and required of fire service personnel in performing their jobs.[17] It is critical for Essex fire and rescue personnel to improve its current Standard Operating Procedures to better coordinate service delivery throughout the county.

The current SOP's need to be enhanced to meet the constituents' changing needs. It is imperative that all members thoroughly understand their responsibilities and expectations for their position. The SOP should describe the county's rules for doing the job and should form the basis for regular system-wide training.

Recommendations:

1. The Essex County Emergency Services Manager in collaboration with the Emergency Management Group should improve its existing Standard Operating Procedures (SOPs) with an emphasis on creating an accountability system.

    a. The County should establish system wide Standards Operating Guidelines. Standard Operating Guidelines (SOG's) are designed to provide guidance during emergency incidents.[18] This guidance is aimed at ensuring that operations are safe and effective. The main purpose of a SOG is to have everyone essentially operating from the same "playbook" at an incident.

        i.   The County should take advantage of pre-existing resources on the development of Standard Operating Guidelines for Fire and EMS organizations such as the United States Fire Administration's guide on developing Standard Operating Procedures, http://www.usfa.dhs.gov/downloads/pdf/publications/fa-197.pdf, and current organizational guidelines.

        ii. Once created, regular informational and training sessions should be held with all Essex County fire and rescue members and partners, including the Airport.

        iii. The Table of Contents, or central listing and training, should be included in new members orientation to ensure integration into the organization or fire and rescue service.

2. Utilizing the guidelines outlined in NFPA 1561: Standard on Fire Department Incident Management Systems, Essex County should formally articulate, practice and strictly enforce a countywide Incident Management System policy and accountability system.

    a. The County should develop a clearly written Incident Command system.

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[17] Developing Effective Standard Operating Procedures for Fire and EMS Departments, December 1999
[18] Ibid

b. Increased structure and coordination to the management of emergency incidents will ensure the safety and health of fire-rescue personnel.

c. The County should emphasize the importance of incident management system in managing all emergency incidents and training exercises. Essex County should further emphasize the importance of written plans to anticipate incidents that require standardized procedures.

d. National and state standards should be used as a guide for the development process, such as the Incident Command System.[19]

e. It is recommended that these management principles be practiced through full-scale exercises. This will help identify response challenges and allow them to be resolved before an incident.

3. The Emergency Management Group and Emergency Services Manager must consider establishing position specific definitions using job functions.

4. Essex County must establish a clear response matrix for typical incidents and special incidents.

a. Allow for Incident Commander to have some flexibility in response decisions based on conditions.

b. Determine which priority incident categories are needed and work on developing that matrix with a goal over time of one or two per month with the Emergency Management Group.

Fire Prevention Activities

There is no one person or group in Essex County responsible for all fire prevention activities. The few activities that are accomplished are spread among several individuals with no formal organization or coordinated message. Essex County has not opted to enact or enforce the Statewide Fire Prevention Code, which are *"statewide standards to safeguard life and property from the hazards of fire or explosion arising from the improper maintenance of life safety and fire prevention and protection materials, devices, systems and structures and the unsafe storage handling, and use of substances, materials and devices, including fireworks, explosives and blasting agents, wherever located."* [20]

Recommendations:

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[19] Incident Command System, Overview; http://www.fema.gov/emergency/nims/IncidentCommandSystem.shtm
[20] 2009 Statewide Fire Prevention Code, Preface, page i.

Essex County should enact and enforce the Statewide Fire Prevention Code. The Statewide Fire Prevention Code allows for cost recovery. Utilization of a fee structure would enable Essex County to generate revenue to help support these activities.

1. Essex County should designate someone who will enforce the Statewide Fire Prevention Code. Below are some possible ways that Essex County could accomplish this:

    a. Employ a Fire Marshal for the enforcement of fire codes, to conduct fire investigations, and to coordinate public fire and life safety education; or,

    b. Assign the duties to the designated Fire Official.

    c. Consider entering into a service agreement with a neighboring jurisdiction to perform the Code inspection and enforcement.

    d. The designated Fire Official should also be tasked with the review of all non-residential building and development plans.

THEME 2: COMMUNICATIONS

In order to develop a cohesive Fire-Rescue System in Essex 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 Essex County. Before other identified recommendations can be implemented, effective and reliable communication capabilities must be established between the volunteer departments and the county.

Fire and Rescue 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.[21] Without reliable communications, the safety and security of Essex County's fire and rescue service providers are jeopardized.

Recommendations:

1. The County should strengthen its fire and life-safety communication activities with the residents of Essex County and should establish a Reverse E911 System to communicate emergency information with its residents.

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

a. Reverse E911 or similar citizen emergency communications systems allow local officials the capabilities to provide timely information to the citizens of Essex during times of emergencies, ranging from severe weather to road closures.

b. Keeping the public informed is essential for effective fire prevention and long-term planning.

c. Increased efforts to promote the positives attributes of the fire and rescue services in Essex County will go a long way to increase morale and attract more volunteers.

Levels of Interdepartmental Communications

During the site visit, the study committee observed and documented a breakdown of communication among personnel from the fire department, sheriff's office, EMS, and other entities within the County Government.[22] The limited and at times strained communications between service providers has the potential to affect application of fire and rescue activities in Essex County. There is a perceived lack of understanding of the comprehensive needs of the fire and rescue organizations by the County's policymakers.

The County must identify and resolve the breakdowns in communications and work tirelessly to educate all members.[23] The volunteer personnel must understand that communications is a two-way process, therefore, all relevant parties must work together to provide the highest quality level of service for the county.

Recommendations:

1. The County should host a strategic communication session with a professional mediator to resolve existing challenges and barriers amongst the following entities; fire and rescue departments, Emergency Management Group, Sherriff's Communication Center along with Essex County Administration and its Board of Supervisors.

   a. The objective of this work session should be to develop strategies to overcome identified barriers. It should further create and implement an effective communication system involving fire and rescue departments, communications center, County Government 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.

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[22] County Government refers to both County Administration and Board of Supervisors
[23] Leading the Transition in Volunteer and Combination Fire Departments, November 2005

d. The communication session should further serve as an opportunity to clarify and establish countywide division of labor.

2. The County should strengthen its fire and life-safety communication activities with the residents of Essex County.

   a. Increased efforts to promote the positive attributes of the fire and rescue services in Essex 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. Service providers in Essex County must understand the importance of two-way communication. Therefore, it is encouraged for them to communicate to the County Government through the established chain of command in a professional manner.

4. 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 Emergency Management Group: http://www.nfpa.org

   v. Virginia Department of Forestry: http://www.dof.virginia.gov/fire/index.htm

   vi. Virginia Department of Emergency Management: http://www.vaemergency.gov/social-media/alert-localities

   vii. Southern Group of State Foresters: http://www.southernwildfirerisk.com/

Improved Dispatch System

The current dispatch system is managed by the Sheriff's office. The study team was advised that the system works poorly and further provides inadequate coverage for mobiles and portables on a countywide basis. The facility is not acceptable in its current location for many reasons, most important concern being security from both manmade and natural situations.

The communication system answers all calls-for-service for law enforcement, fire, and emergency medical services throughout the County. The Study committee was advised that the departments utilize inconsistent dispatch procedures and operate under individualized radio frequencies that are not monitored by the dispatch center. Such practice does not allow interoperability and furthermore jeopardizes the service delivery and safety of Essex County's first responders and its constituents. Additionally, the study team was informed that the Sheriff's Office and Fire and EMS have primary radio channel while the tactical channel is primarily used by Fire and EMS.

Recommendations:

1. Essex County needs to replace its entire communication system and set it in a secure facility. This is not intended to be a negative comment toward the dispatch center staff of the Sheriff but rather a comment upon the dispatch center itself and the various components of the dispatch system.

    a. The current dispatch center's location does not meet the entities' needs. Therefore, it is recommended that it be relocated to a secure location.

2. Fire and Rescue Dispatch Protocols, including those for mutual aid must be developed.

3. Essex County should consider joining a Regional Communications System.

    a. It is strongly recommended for Essex County to explore opportunities of joining a regional communications system/facility that can meet the individual jurisdictional needs but also work for regional communications and cooperation.

4. Accounting for call volume and complexity, the Essex 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. The County should establish a minimum staffing level of two dispatch personnel at all times.

    b. The following resources are provided as a means of analyzing staffing to ensure adequate dispatch coverage:

        i. The Emergency Management Group of Public Safety Communication Officials (APCO) – Project RETAINS Toolkit 2.0;

        ii. The National Fire Protection Emergency Management Group's (NFPA) Standard 1221 – Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems; and,

        iii. The National Emergency Numbers Emergency Management Group's (NENA) Standard 56-002: 9-1-1 Call Answering Standard/Model Recommendation.

Oversight

In Essex County, the Dispatch Center is part of the Sheriff's Office. A concern emerged, perceived or actual, that the dispatching staffs are understaffed and inadequately trained. This appears to be partially due to lack of Standard Operating Procedures for fire and rescue dispatching.

Recommendations:

1. The Essex County Board of Supervisors should appoint an Emergency Communications Advisory Committee from the Emergency Management Group with participation from the Emergency Services Manager. Outside parties should also be considered. This will provide a comprehensive analysis of the County's overall dispatch system.

   a. The Emergency Communications Advisory Committee should meet at least quarterly, more often if needed. The decision should be made jointly.

   b. The Committee should establish dispatch protocols (including mutual aid), procedures, staffing and equipment upgrades and provide recommendations to the whole Emergency Management Group.

2. Following receipt of the recommendation, the Emergency Management Group and Emergency Services Manager will present to the Board of Supervisors which in turn must consider adopting standardized 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 Essex County's fire and rescue response.

   c. Automatic Mutual Aid should be established for all departments, based on the closest company/unit, and high-level incidents should be assessed for automatic multi- or co-responses, such as structure fires and mass casualty incidents.

THEME 3: TRAINING

One of the secrets of a successful countywide Fire-Rescue System is the full integration of all 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. [24] Tactical efficiency is achievable in Essex County if there is performance-based, certifiable training program and the opportunity for all 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

Tactical equality 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.

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[24] Leading the Transition in Volunteer and Combination Fire Departments, November 2005

Recommendations:

1. Aligning with the strategic planning efforts, it is recommended that structured and coordinated training program be developed to address the comprehensive training needs of the entire county. It is further recommended placing an emphasis on the importance of specialty training and schedules.

    a. Essex County should create training standards in accordance to County needs. The county's comprehensive training program needs to be assessed annually. Such assessment will enable the adoption of warranted changes.

2. The County should explore into the feasibility of collectively coordinating the application of a countywide training program.

    a. Ensure that training opportunities are scheduled to meet the needs of volunteer members. The county should consider establishing convenient courses schedules for weekends or nights so that offerings are spread across a longer period of time. The consideration must also be extended to specialty training.

    b. Enhance efforts of collaborative multi-company training opportunities.

    c. Necessary training should be offered with appropriate notice to ensure maximum turnout and return on investment.

    d. The County should work collaboratively with the Emergency Management Group to ensure all fire and rescue service providers are competent, trained and capable to perform assigned duties.

3. The Emergency Management Group should encourage all new firefighters be cross-trained as Emergency Medical First Responders, at minimum, to enhance rescue capacity within Essex 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.[25]

    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.

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[25] Virginia Department of Health (Office of Emergency Medical Services) and FY13 Essex County Budget

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.

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d. The Emergency Medical First Responder classes should be offered in conjunction with each Firefighter I program.

THEME 4: BUDGET AND ADMINISTRATION

For FY2015, Essex County received a total of $27,804 from the Commonwealth of Virginia's Fire Programs Fund[26]. For FY2014, Essex County received $26,357 and approximately $12,000 from the Office of Emergency Medical Services in Four-for-Life funds, which are utilized to fund training, personnel and equipment expenses.[27] The Tappahannock-Essex Volunteer Fire Department utilizes letter drive and rental of their banquet room and new pavilion to supplement other expenses. It was clear that the service providers and county government have been working collectively to resolve the budget challenges that the fire department has experienced over the past years.

Both Essex County and the Town of Tappahannock resource disbursement is disseminated without an accountability system in place. Such blanket assistance is inefficient. It was further observed that the County currently lacks ownership of property or equipment. With consideration of the present process, the County will lack ownership of future large capital equipment or stations that it may purchase. It is therefore highly recommended a review be conducted in regards to the funding formula.

County Funding and Capital Improvements

There appears to be a willingness from the local government to assist the non-governmental agencies in their efforts to meet service needs through contributions. With respect to the Town of Tappahannock, there is a stipulation regarding the town's funding. Funding from the town must first stay within the town limits which require delivering services to meet the Town of Tappahannock's needs.

As it relates to the level of funding, Essex County provides about $63,325 to the fire department which in turn is disseminated to all the other stations within the County[28]. Town of Tappahannock provides the fire department $62,789 per year[29]. Essex County allocates to its EMS, $1,033,423 which provides paid staffing of 33 EMS personnel along with operational expenses[30]. EMS only has 5 volunteers.

For the budget year 2013-2014, the total operating expenses for the Tappahannock-Essex Volunteer Fire Department was $197,057.77[31]. For 2014-2015, the operating expenses are $136,983[32], as of December 31, 2014. According to the fire departments budget, the total

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[26] VDFP – ATL Funding 2014/2015
[27] Essex County Budget 2015
[28] Essex County Budget 2015
[29] Tappahannock-Essex Volunteer Fire Department Budget
[30] Essex County Budget 2015
[31] Tappahannock-Essex Volunteer Fire Department Budget
[32] Tappahannock-Essex Volunteer Fire Department Budget

combined operating contribution from the Town of Tappahannock and Essex County has been $126,114.00[33].

The study team was advised that due to limited operating contributions, the fire department has been using funding intended for their internal – station specific capital improvement to cover operating expenses. As a result of that, the Tappahannock-Essex Volunteer Fire Department intends to use a new budget proposal format for 2015-2016 of which will add two new budget line items: a Reserve Maintenance Fund ($15,000) and an Operations Reserve ($10,000), along with a line item for a grant writer ($7,800)[34].

The study team was informed that there is no specific accountability with respect to accounting of funding. Fire Departments have an outside accounting audit delivered by an Accounting Firm. The County and the Town have no role in this process.

Essex County should restructure the funding model to better achieve efficiency. 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 Essex County to exercise fiscal responsibility and must therefore ensure taxpayers' dollars are spent efficiently. The burden rests with the Essex 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 continue requiring the fire department and rescue squad to annually provide yearly financial compilations. Greater transparency over the budget will eliminate any distrust between the Board of Supervisors and the Fire-Rescue System's leadership and aid in strategic planning for meeting future fire and rescue related service needs.

Recommendations:

1. A formal accountability plan should be developed for county funds and revenue recovery funds. The plan should be communicated to citizens and members of the fire and rescue organizations.

    a. The County should require annual or biannual financial audits or an agreed upon procedures (AUP) to be completed and submitted to Budget Office or County Administration.

    b. Clarify and document any services provided to the volunteer agencies such as hose testing, ladder testing, and pump/pack testing in one document as a "one pager" easy to read tool.

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[33] Tappahannock-Essex Volunteer Fire Department Budget
[34] Ibid

c. The County should promote such accountability process to exhibit the value of financial resources, human capital and time.

d. This accountability plan should be developed with fire and rescue organizations' participation and must ensure it is in accordance to state and national standards.

e. 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.

2. With input from the Emergency Management Group, the Board of Supervisors should develop a capital improvement plan for upgrading its fire and rescue stations and equipment, as well as future station constructions.

    a. Board of Supervisors should establish a countywide equipment replacement policy with an emphasis on rotational equipment replacement based on prioritized needs.

3. The Essex County Board of Supervisors should move forward with hiring the 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 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

    f. The grant programs offered by the Virginia Fire Services Board (VFSB) through the Virginia Department of Fire Programs (VDFP).[35]

    g. Various private grant programs.[36]

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[35] A listing of available VFSB is available online, http://www.vafire.com/grants_local_aid/index.htm
[36] 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/

Standardization and Central Purchasing

There is a strong opportunity to bulk purchase in both daily needs and monthly/annual purchases. The County Government along with the Emergency Management Group should consider central purchasing and pursue making recommendations and require adherence as part of jurisdictional funding to reduce costs and increase standardization. In instances where savings results the County should not reduce the budgets but rather reinvest the savings back into the area of the system where the savings is realized. This provides a strong incentive to work together to maximize cost savings.

The County should also take advantage of a central vehicle maintenance program based out of the School Division's fleet facility. An area of cost-savings would be experienced through the standardization of future equipment and apparatus within the county. Standardization and Central Purchasing will not be without difficulty, but is necessary for delivering cost-effective and efficient fire and rescue services. Group purchasing is highly recommended for Essex County. Equipment and gear decision making should be left to the Emergency Management Group and the Emergency Services Manager. If there is resistance among entities involved, it is advised for the Board of Superiors to consider the renegotiation of any financial support for that particular entity.

Recommendation:

1. The County Administration should develop and implement a centralized purchasing option to leverage county purchasing power and reduce operational expenses.

2. The County Administration after consultation with the Emergency Management Group shall develop specifications for central purchase activity areas. Below are suggested areas/activities for central purchasing:

   a. Personal Protective Equipment[37] and Self-Contained Breathing Apparatus[38] Ensure all departments are purchasing compatible equipment that meets National Fire Protection Emergency Management Group standards and are reaping the same cost savings.

   b. Equipment/Apparatus – The Emergency Management Group should survey each department to determine if equipment commonalities exist. As previously mentioned, common apparatus specifications should be created and contracted, allowing volunteer organizations to make customizations without overly altering the specs, and reap the benefits of group purchasing for routine maintenance and replacement of aging ambulance and fire apparatus.

3. The Emergency Management Group should survey each department to determine if equipment commonalities exist. The equipment commonalities list should be used,

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[37] NFPA 1971, http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1971
[38] NFPA 1981, http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1981

along with strategic planning for Essex County's routine maintenance and replacement of equipment, aging ambulance and fire apparatus.

  a. An Apparatus Repair and Replacement Subcommittee should be established within the Emergency Management Group in order to identify and prioritize needs of apparatus replacement and/or repair.

      i. Essex County currently is in need of a ladder truck. Therefore, the subcommittee can make the appropriate recommendations to the county government.

  b. This critical priority list of apparatus should utilize the NFPA 1911 – Standard for Inspection, Maintenance, Testing and Retirement of In-Service Automotive Fire Apparatus.[39]

  c. An inventory and capabilities of all vehicles, including those maintained by mutual aid localities should be provided to the Dispatch Center to improve dispatch.

4. The Emergency Management Group should develop 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 Apparatus [40]

  b. NFPA 1911 – Standard for Inspection, Maintenance, Testing and Retirement of In-Service Automotive Fire Apparatus [41]

  c. NFPA 1912 – Standard for Fire Apparatus Refurbishing [42]

THEME 5: DELIVERY OF SERVICES

Several outside factors are affecting the fire and rescue personnel in Essex County. Similar to many other jurisdictions, the county lacks adequate personnel to address call volume and growing administrative requirements. According to the 2014 Virginia Fire Service Needs Assessment, Essex County reported that the present call volume warranted 10 additional personnel to sufficiently staff their stations.[43]

The limited and aging populations along with the lack of incentives make it difficult to recruit volunteers. Conversations with members of the fire departments revealed that the main fire station serves as the primary fire department for Essex County and Town of Tappahannock and

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[39] NFPA 1911, http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1911

[40] NFPA 1901, http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1901

[41] NFPA 1911, http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1911

[42] NFPA 1912, http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1912

[43] See Appendix 5: 2014 Virginia Fire Service Needs Assessment.

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.

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the other two stations serve as substations with limited personnel. Based on discussion with both the Sheriff and the fire department members they do not have "run districts" and therefore all calls are answered by those that are available. This is an area that needs to be addressed for better service delivery to the citizen in need.

Moreover, some personnel concerns centered on Fair Labor Standards Act (FLSA) compliance since they seem to employ personnel to run EMS, which have to be fire certified yet also allow them to volunteer for the fire department. According to personnel, there are firefighters that are EMS certified. Some work as career EMS personnel within the County's system. The availability of personnel plays a large role in the quality of service provided to the citizens of Essex County. It is highly recommended for the county government to actively participate in recruiting volunteers.

Recommendations:

1. Extend Use of Qualified Personnel.

    a. County personnel who are also fire qualified should have regular integrated training with the volunteer fire department staff, including potential pulling a periodic (example quarterly) duty shifts with the Fire Department.

    b. Volunteer Fire Department personnel who are EMS qualified should also be afforded the same opportunity to train and run periodic duty shifts with the paid EMS personnel.

2. Emergency service delivery should be a group decision-making process which should consist of bottom-up, rather than top-down.

    a. During the strategic planning process, it is encouraged for the county to consider service delivery as an objective.

3. Essex County should establish and implement countywide standards to ensure a high level of accountability.

4. Essex County Government should work with the Emergency Management Group to identify needs for additional fire and rescue personnel to meet service demands and citizen expectations.

    a. The County Government should reexamine its current system and must find methods to effectively use the human capital that are in the fire and rescue system presently.

5. Emergency Management Group should provide scheduled updates to the Board of Supervisors and citizen groups on ongoing activity related to positive and negative areas of service delivery.

a. Information associated to call data is an effective tool that can exhibit an entity's ability to meet its community's needs.

Recruitment and Retention

Recruiting and retaining quality personnel is an essential component to the overall success of a volunteer fire and rescue departments. Like many areas throughout the nation and the Commonwealth of Virginia, Essex County has felt the impact of declining numbers of men and women volunteering for fire and rescue departments. However, Essex County should be applauded for its recruitment and retention efforts. The County's recruitment campaign "The Challenges are real. So are the rewards. Ride with us," is a creative initiative with residual benefits.

Recommendations:

1. Essex County should continue with its recruitment and retention campaign.

2. The Emergency Management Group and County Government should continue identifying additional fire and rescue personnel needs continuously.

    a. Through improvement of fire and rescue incident data analysis and strategic planning, Essex County will be able to determine fire and rescue personnel needs, equipment needs and deployment.[44]

3. Essex County's fire and rescue organizations should also look into taking advantage of pre-existing recruitment and retention information. Resources may be downloaded at the following locations:

    a. Emergency Medical Services (EMS)
        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

Operations and Staffing

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[44] International Emergency Management Group 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.

Special attention should be made to ensure fire and rescue capabilities are adequate for the potential hazards presented by the economic developments in Essex County and its interstate highway system. The study team discovered that the County lacks a ladder truck. Based on observation of the local businesses, it is imperative that a ladder truck be obtained. Additionally, there is an operational hazard that is imminent at Essex County as it relates to water rescue capability. Using private citizens to conduct at water rescue is dangerous and risky at best.

Recommendations:

1. There is no ladder truck; this makes it difficult to respond to fires at any of Essex County's four story buildings including the Holiday Inn Express. The County and Emergency Management Group must work together in pursuing efforts to obtain the truck ladder.

2. Each of the fire department stations needs a brush truck, engine and a tanker.

3. The County should develop an enhanced river rescue capability to include safe boat and lifesaving devices such as cushions, life preservers etc.

4. The above improvements will assist the County reduce residents insurance cost by improving Insurance Service Office (ISO) ratings.
    a. This can be accomplished through improved training records and adding more

       dry hydrants within the community.

    b. The county should continue working with the Department of Forestry (DOF) to obtain additional Dry Hydrants.
        i. Grants can be obtained through DOF's Dry Hydrant Grant Program: http://www.dof.virginia.gov/fire/dryhydrant/index.htm.

5. Essex County fire and rescue services should keep accurate records of incident response times in order to continuously assess response capabilities.

    a) It is recommended that the county utilize the NFPA guidance documents as resource documents.

    b) The 2014 edition of *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* addresses the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by all volunteer fire departments.

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APPENDIXES

Appendix 1: Essex County Letter of Request – December 2014

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

APPENDIX 3: Essex County – Virginia Pre-Hospital Information Bridge Report Summary

Appendix 4: Essex County 2014 Needs Assessment Summary Statistics

Appendix 5: Essex County FY2014 Aid-to-Localities Allocation Report

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Virginia

December 16, 2014

Board of Supervisors

Sidney Johnson
North Election District

Margaret H."Prue" Davis
South Election District

Edwin E."Bud" Smith, Jr.
Central Election District

E. Stanley Langford
Greater
Tappahannock
Election District

Virginia Fire Services Board
1005 Technology Park Drive
Glen Allen, VA 23059

Dear Sir/Madam:

This is to request the services of the Virginia Fire Services Board (VFSB) in conducting a complete and thorough review on the Fire and EMS system in Essex County. This study has the support of the Essex County Board of Supervisors and the County Administration and was approved during the July 15, 2014 board meeting

The request areas of the concentration of this study includes:

- o   Overall organization and structure of fire/EMS system
- o   Assessment of training delivery system for fire/EMS
- o   Policy/Procedure/Standards applicable to all fire/EMS staff including:
    - •   Minimum training standards
    - •   Responding interval standards
- o   Fire/EMS apparatus fleet (current and future needs)
- o   Improved service delivery (direction for the future)
- o   Assessment of training delivery system for our dispatch center
- o   Policy/Procedure/Standards applicable to all dispatched emergency's

Department of Fire Programs

DEC 1 8 2014

Administration

It is the Board's and my proposal to have a complete and thorough review of our fire/EMS system and a comprehensive list of recommendations to enhance the delivery of services for our citizens. Your efforts toward completing this study within an approximate six month time frame would be greatly appreciated.

James Brann Chief of Public Safety will serve as principle contact between Essex County and the Virginia fire Services Board. He will be responsible for the correspondence of feedback to all relevant stake holders. He can be contacted at (804)443-4059.

Thank you for your assistance on this matter. Please feel free to contact James Brann with any additional questions. We look forward to working with you and the Virginia Fire Services Board in the near future.

Sincerely:

A Reese Peck
County Administrator
Essex County, VA.

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, Essex County, Virginia 2010-2014

Incident Type	2010	2011	2012	2013	2014	Grand Total
Fires	38	27	57	23	41	186
EMS/Rescue	103	76	78	80	69	406
Hazardous Condition	25	29	13	18	15	100
Service Calls	16	12	30	4	6	68
Good Intent	53	43	66	40	38	240
False Alarm	21	24	29	11	11	96
Other	2	3	7	3	1	16
Total Incidents	**258**	**214**	**280**	**179**	**181**	**1,112**
Aid Given	3	5	18	41	41	108
Exposures	0	0	0	1	0	1
Grand Total	**261**	**219**	**298**	**221**	**222**	**1,221**

Fire Dollar Loss Summary, Essex County, Virginia 2010-2014

Year	2010	2011	2012	2013	2014	Grand Total
Dollar Loss	$21,650	$2,450,900	$1,126,601	$1,429,492	$682,900	$5,711,543

Casualty Loss Summary, Essex County, Virginia 2010-2014

Incident Type	2010	2011	2012	2013	2014	Grand Total
Civilian Fire Injuries	0	0	1	0	0	1
Civilian Fire Deaths	0	0	0	0	0	0
Fire Service Injuries	0	0	0	0	0	0
Fire Service Deaths	0	0	0	0	0	0

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.

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VFIRS Participation By Fire Department, Essex County, Virginia 2010-2014

Fire Department	2010	2011	2012	2013	2014
Essex County EMS			Yes	Yes	Yes
Tappahannock-Essex Vol. Fire Dept.	Yes	Yes	Yes	Yes	Yes
Total Fire Departments Participating	1	1	2	2	2
Total Fire Departments	2	2	2	2	2
Percent Reporting	50%	50%	100%	100%	100%

Incident Type Summary, Essex County, Virginia, 2010-2014
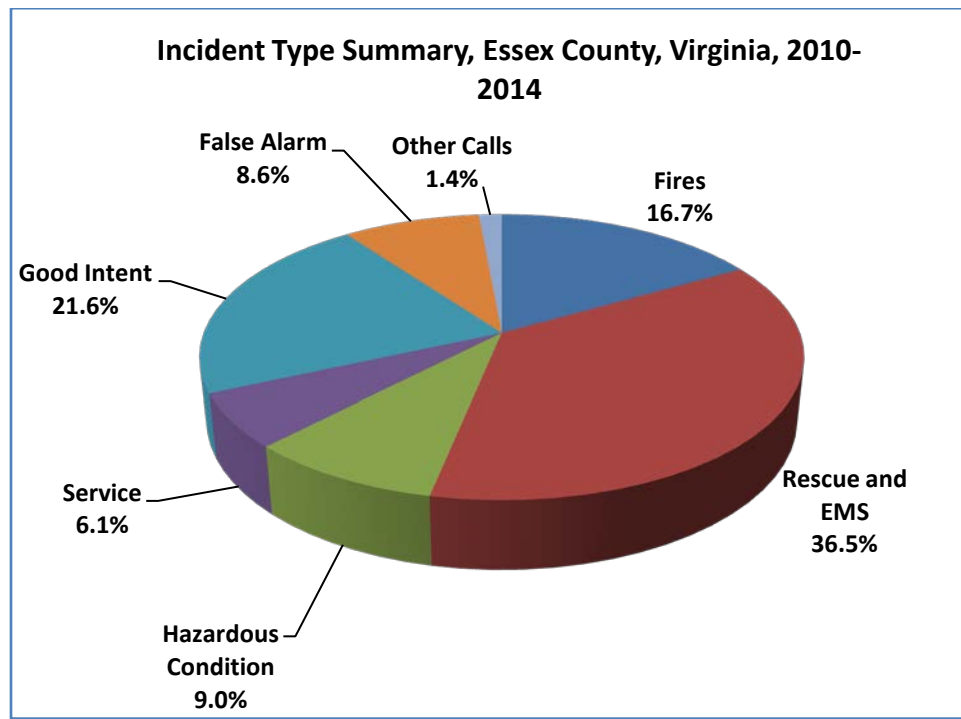
APPENDIX 3: ESSEX COUNTY – VIRGINIA PRE-HOSPITAL INFORMATION BRIDGE REPORT SUMMARY

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)"*

Essex County EMS	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Year	Grand
1310	2015	135	138	132	133	137	73							748	2015	
	2014	121	102	128	122	128	126	128	126	132	125	105	116	1459	2014	
	2013	106	83	112	114	115	113	105	116	129	130	124	132	1379	2013	
	2012	0	0	0	0	0	0	0	45	80	105	71	104	405	2012	3,991

Tappahannock	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Year	Grand
Rescue Squad	2015	0	0	0	0	0	0							0	2015	
288	2014	5	7	5	4	3	2	2	0	0	0	0	0	28	2014	
	2013	15	11	15	21	18	21	31	16	15	15	6	8	192	2013	
	2012	61	106	116	104	86	108	124	39	11	11	17	26	809	2012	1,029

Tappahannock - Essex	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Year	Grand
Volunteer Fire Dept	2015	0	0	0	0	0	0							0	2015	
1068	2014	0	0	0	0	0	0	0	0	0	0	0	0	0	2014	
	2013	0	0	0	0	0	0	0	0	0	0	0	0	0	2013	
	2012	0	0	0	0	0	0	0	0	0	0	0	0	0	2012	0

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.

Fire Department Personnel	Current*	Need Reported**
Career Firefighters	31	0
Volunteer Firefighters	55	10
Paid-Per-Call	0	0
Total Firefighters	86	10
Civilian-Paid	2	0
Civilian-Volunteer	0	0
Total Civilian Personnel	2	0

*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	4	1
Command Support Unit	0	0
Command Vehicle (SUV)	1	0
Engine/Pumper	0	0
Fire/Rescue Boat	0	0
Hazardous Materials Vehicle	0	0
Heavy Technical Rescue Vehicle	0	0
Logistical Support Apparatus	0	0
Quint Combination Vehicle	0	1
Tanker	2	0
Wildland Brush Truck	3	0
Other Apparatus	1	0

*Taken from Supplemental Table 2
**Taken from Supplemental Table 5

Equipment Owned	Current*	Need Reported **
4-Gas Monitors	4	2
Map Coordinate System – GPS	2	8
Mobile Data Terminals	4	4
Personal Alert Safety Systems	0	0
Personal Protective Equipment	58	40
Radios with Emergency Alert Button	42	20
Radios without Emergency Alert Button	0	0
Self-Contained Breathing Apparatus (without integrated PASS)	0	0
Self-Contained Breathing (with integrated PASS)	30	30
Thermal Imaging Cameras	3	0
Other Equipment	0	0

*Taken from Supplemental Table 3
**Taken from Supplemental Table 6

Description	Population (2010 Census)	FY2014 Allocation
Essex County	11,146	$23,721
Town of Tappahannock	2,378	$9,000
Total	13,524	$32,721

Taken from VDFP – Allocation Report