Town of Monroe

Connecticut

STRATEGIC PLANNING STUDY FOR THE VOLUNTEER FIRE SERVICES SERVING THE TOWN OF MONROE

2018

ESCI Emergency Services Consulting International

Providing Expertise and Guidance that Enhances Community Safety

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ACKNOWLEDGMENTS

Emergency Services Consulting International (ESCI) would like to acknowledge that without the assistance and support of the Town of Monroe, Monroe Fire Department, Stepney Fire Department, and Stevenson Fire Departments this project could not have been successfully completed.

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ANALYSIS OVERVIEW

After careful consideration of the Town of Monroe's stated needs, ESCI understood that the Monroe, Stepney, and Stevenson Volunteer Fire Departments serve an area of slightly more than 26 square miles from six stations. The Monroe FDs function as a full-service emergency and non-emergency delivery system. The delivery of these services is accomplished under the direction of three Board of Directors and the leadership of three Fire Chiefs. The departments are structured using an entirely volunteer workforce.

ESCI understood that Town of Monroe and the three fire departments desired to establish a strategic plan to lead the fire departments and the Town into the future. The belief was that a strategic plan would serve to focus the organizations on several areas of concern and provided a general direction to manage growing challenges within the jurisdiction. The Town had made its desire clear in maintaining the services that utilize volunteers, and has gone to great lengths to communicate the value volunteers bring to the community.

ESCI understood that the Town Council of Monroe, First Selectman, and the leadership of each department desire to conduct a community driven planning process. ESCI immediately began the work of data collection and analysis by working with Monroe staff to collect relevant data.

On December 22, 2017, ESCI conducted a phone conference with members of the Town's "Fire Services Study Committee" to begin the process of conducting the strategic planning process and outlining the responsibilities of the respective parties. In the ensuing weeks, a variety of conference calls were conducted as Monroe staff began to deliver datasets requested by ESCI.

On February 9, 2018, ESCI staff conducted an "onsite" visit to further gather input from internal stakeholders. This process consisted of one-on-one interviews with Town Council members, Town leadership, fire department leadership, and volunteer staff. During this site visit ESCI also toured all fire department facilities and reviewed all response apparatus.

On April 27, 2018, the ESCI team conducted a second site visit to conduct S.W.O.T analysis with fire department personnel. The intent of this session was to establish a common set of mission, vision, and values statements. This site visit also allowed the ESCI team to participate in an external stakeholders meeting in which various community leaders, business owners, and homeowners were provided an opportunity to communicate their expectations of the fire departments serving the Town of Monroe.

In addition to the direct interviews with board members, staff, and citizens, a series of survey instruments were administered to internal and external stakeholders. The data and information collected as part of these surveys was used as a basis for developing this strategic plan.

As part of the strategic planning process, Monroe has identified its core services provided to the citizens and visitors of its jurisdiction. The Town has worked to further understand and communicate the external influences on the organization, as well as the challenges associated with delivering these services. The needs of the Town include developing a series of short-term, mid-term, and long-range plans. These plans will serve as guides towards service delivery, program implementation, and financial sustainability and are paramount to the success of the master plan, as well as the welfare of the community it serves.

The citizens served by Monroe have invested their respective tax dollars with the department and expect a level of return on that investment. The Town Council and leadership of Monroe have a responsibility to provide that return on investment and effectively communicate what the level of return means to the citizens.

EXECUTIVE SUMMARY

Emergency Services Consulting International (ESCI) was engaged by the Town of Monroe (Town) to conduct a strategic plan in support of the three fire departments serving the Town. This strategic plan will assist the Town and fire departments in the future planning and provision of comprehensive emergency services to the citizens of Monroe. This report is organized as a manner that evaluates current conditions; projects future growth, development, and service demand; and provides recommendations and strategic initiatives to enhance current services, or to provide an equal level of service over the next three to five years.

ESCI thanks the Town and members of the Monroe, Stepney, and Stevenson Volunteer Fire Departments for their outstanding cooperation in the preparation of this report. All involved were candid in their comments and provided a tremendous amount of essential information. The ability of the ESCI team to receive this valuable input and information was key to the development of this plan.

The strategic plan begins with a review of stakeholder input and review of the current service delivery provided by each of the three fire departments' programs, administration, management, service delivery performance, and financial condition. All areas are evaluated and discussed in detail, and specific recommendations are provided where applicable.

Stakeholder Meetings

In order to successfully establish and implement an effective strategic plan, it is critical to understand the functions that are most desired by the customers being served. As a part of this project, a set of facilitated stakeholder meetings were utilized to obtain community perspective regarding operations of the fire departments serving Monroe. Invitations were extended to community leaders, business owners, and citizens. An external stakeholders' meeting was conducted during ESCI's site visit, with interviews focused on external stakeholder areas of concern, areas of strength, expectations, and response times.

Outside of firefighting, participants in the external stakeholders meeting generally believe the Monroe fire departments to be capable in serving the needs of the community. Constituents felt generally positive in the areas of hazardous materials, water emergencies, and vehicle accidents. Relative to mass casualty and medical emergencies, the respondents generally indicated they were unsure of each department's capabilities.

When asked about utilizing the services of a fire department serving the Town of Monroe, 66 percent of the respondents indicated they had contact with a at least one of the fire departments one to five times in the previous year. In all these cases, the respondents rated their experience as "excellent." Additionally, several of the respondents who had not been in contact with the department in the previous year had done so previously and also rated their experience as "excellent." When asked if the Monroe Fire Departments, collectively, were an organization the respondents would want responding to the emergency of their family all indicated "yes." When asked about their individual satisfaction with the "level of service" provided by the Monroe fire departments all respondents indicated "yes."

In each of the interviews, respondents were asked about the importance of adhering to "national standards" for firefighting, all indicated it as either "important" or "very important." Several of the respondents indicated that

while the adherence to national standards was a high priority, the reality is that some standards cannot be one-size fits all and may have to be adjusted dependent upon the region or needs of the Town of Monroe.

Participants in the external stakeholder interviews were asked to priority rank a list of "tasks" the Monroe fire departments should provide. Overwhelmingly, the respondents indicated that fire suppression should be the number one priority of the departments. Following fire suppression, the technical rescue disciplines (i.e., trench, confined space, high angle, ice rescue) and fire prevention. Low on the list of priorities was welfare visits, code enforcement, and emergency medical services.

In addition to the external stakeholder meetings, ESCI conducted internal stakeholder meetings in an effort to gain the feedback and input of all persons involved in providing services the citizens of Monroe. Internal stakeholders were asked to participate in a facilitated exercise to complete a strengths, weaknesses, opportunities, and threats (SWOT) analysis.

The process included an internal environmental scan; prioritization of the scan results; a one-day planning session, review of the strategic planning process, review of the environmental scan; review of the mission, values, and vision of the department.

At the time of this report, each of the fire departments serving Monroe had existing "purpose" statements within their respective organizational by laws. However, a common mission statement answering the above questions in serving the citizens of Monroe did not exist. While the purpose statements met the needs of the individual organizations, the lack of a common mission statement did not allow for a collective and consistent approach for establishing a mission serving the Town and its constituents. During the internal stakeholders' meetings, a discussion was facilitated on the content, representation, and application of an adopted mission statement. Feedback was obtained regarding various components of an effective mission statement. Several draft versions of the mission statement were created and provided to the fire departments for consideration. As a result of this effort, the following mission statement was developed:

"It is the mission of the Monroe, Stepney, and Stevenson fire departments to provide fire suppression and rescue services to the citizens of the Town of Monroe in an efficient and effective manner with the best resources provided by the community."

As part of identifying the core values common among the three fire departments a two-step process was conducted. The first step in the process involved an electronic survey of the members of the three fire departments. The electronic survey was used to narrow the possible core values to a list of ten possible selections. Upon narrowing the list, an in-person meeting was conducted and the attending members were again surveyed to further identify the top four values. The results of this exercise were tallied and organized which produced four values that internal stakeholders felt best represented the foundational behavior expected of all members of the three fire departments. These values should represent the culture that prevails in each of the fire department's everyday decision making, operations, and character. Collectively, the members have identified the following values as the core of their organizational behaviors:

- Commitment

- Teamwork
- Trust
- Integrity

Additionally, the fire departments serving Monroe did not have an existing vision statement. As a result of conversations with internal stakeholders the following vision statement was developed.

"To be recognized as an organization that is a service driven in providing the highest quality fire and rescue services with exceptional leadership, highly trained personnel, and a motivated volunteer workforce. We desire to be viewed as an organization that is dependable, compassionate, and sets the standard by which other fire departments are measured."

Evaluation of Current Conditions

An analysis of current conditions is documented in nine survey sections, reviewing administration, governance, staffing, personnel management, service delivery, planning, support programs, and capital assets. Each component of the evaluation includes an introductory explanation of the subject area and discussion of desirable outcomes and identified best practices.

Criterion used to evaluate the fire department has been developed over many years. These gauges include relevant guidelines from national accreditation criteria, National Fire Protection Association (NFPA) standards, federal and state mandates for fire and Emergency Medical Services (EMS) systems, and generally accepted best practices within the fire and EMS industry.

The evaluation of current conditions offers the Town and fire departments a detailed assessment of existing fire department operations and provided the ESCI project team with a snapshot in time, the basis from which the balance of the report was developed. It is important to note that the fire departments have continued to make progressive changes since the initial evaluation thus some of the recommendations may already have been completed.

Organizational Overview

The Town of Monroe was founded in 1823 and is a legally established unit of local government under the general laws of the State of Connecticut. Legislatively, the Town is governed by a nine-member council who are elected at large Under the Town Charter, the First Selectman serves as the Town's chief executive officer and is elected to a two-year term. All department heads employed by the Town are responsible to the First Selectman. The specific duties of the First Selectman are outlined within the Town Charter. The First Selectman is responsible for appointing each department head and serves as ex-officio of all boards, commissions, and special committees.

Under the current Town Charter, the Town does not operate a fire department, but relies upon three separate volunteer fire departments who are legally established as either 501c3 (Monroe) or 501c4 (Stepney and Stevenson) corporations. However, the Town does have an established Fire Marshal's Office which is under the direction of the First Selectman. The Fire Marshal's Office consists of a full-time Fire Marshal who is supported by

an administrative assistant and four Deputy Fire Marshals who are paid on a per diem basis. While not required, the Town's Fire Marshal is a member of the Monroe Volunteer Fire Department.

Each of the department's serving the Town is led by a Fire Chief who is elected by the respective memberships. Under the current operational arrangement between the Town and fire departments, the Town has no administrative or operational oversight over any aspects of the three departments. At the time of the ESCI site team visit no formal written agreement existed between the fire departments and the Town.

Each of the three fire departments utilizes an elected Board of Directors to provide a general governing structure as required by their respective articles of incorporation. In general, these boards are responsible for setting the strategic direction of the departments through the establishment of policies and budgets. These policies are then, in turn, used by the Fire Chief to carry-out the daily operations. The chain of command for each department is clearly delineated and representative of other fire service providers across the United States. ESCI found that the governance of the fire departments are loosely defined in the way they are configured.

Each of the fire departments serving Monroe has developed and adopted an organizational structure. The identified structure of each organization is similar to most other fire departments across the United States. However, the three departments do have slightly different organizational structures. The departments all operate in a traditional top-down manner and lines of authority are clear. These lines of authority should be carefully protected against communications external to the chain of command except in unusual circumstances.

Additionally, from an administrative standpoint, the leadership of each fire department interacts with the Town in a relatively independent manner. This situation has required each Fire Chief and their respective support members to expend a significant amount of time performing administrative tasks that take them away from leading and directing their respective agencies. In interviews with Fire Chiefs, this demand upon their time created varying levels of frustration as they perceived a degree of disconnectedness in their interactions with Town Council members and the presentations of budget. In interviews with Town Council members, it was also expressed that administrative processes were disconnected and, in many instances, duplicated. As the demands upon the fire departments and their members continue to increase, it can be reasonably expected that these administrative demands upon each of the fire department's leadership teams will increase as well. Many communities in similar situations have addressed this issue through the creation of an administrative structure that removes the administrative demands from the Fire Chiefs, which frees them up to effectively lead their respective fire departments operationally. The key is to establish an administrative structure that fits the needs of the Town.

The three fire departments serving the town of Monroe protect a total of 26-square mile. Each fire department operates two fire stations for a total of six fire stations serving areas that can be defined as urban, suburban, and rural as classified by NFPA 1720. Decisions on deployment define the response capability of the fire department. These decisions need to weigh multiple considerations including risk exposure, response times, access challenges, deployment, community expectations, personnel safety, and fire department capacity. Those decisions need to be balanced with the financial considerations of each fire department as well as the Town of Monroe. These decisions are strategic and in the purview of the Board of Directors for each fire department and their respective Fire Chiefs, as well as the Town of Monroe. Ultimately, these individuals are responsible to the public to provide the level of service the citizens' desire and for which they are willing to pay.

The reader should consider the extremes to understand the range of options for deployment. On the one extreme would be one fire station to cover the entire jurisdiction. This station would need to house enough apparatus and personnel to support all calls simultaneously within the municipality. Obviously to reach an incident on the outer edges of the jurisdiction would require the time to travel from the one station. On the other extreme is one station serving a one (1) square mile area. The time to arrive on the scene would be very short, but the apparatus and personnel would need to be replicated in each station to be able to provide the service, but at a significantly higher cost. The Town's responsibility as representatives of the citizens is to determine how quickly an effective crew should arrive to handle the emergency.

The area served by Monroe is in gradual transition as the economy improves and some businesses have begun to relocate to the area. The fire departments provide traditional fire-based services to the community and respond in support of the Town's EMS when requested. The Town of Monroe has been able to maintain an ISO class 5/9 rating, however, and changes in the response area make-up may have an impact on this and should be considered in future planning efforts.

Each of the fire departments own a single station within their respective response area. Additionally, the Town has constructed a second station for each of the departments within their designated areas of responsibility. As with most fire departments across the United States, the locations of each fire station have resulted from decisions made years in advance of this study. Most communities place fire stations based upon the availability of land and space. Historically, fire stations have not been placed utilizing any degree of analysis of response time, call volume, traffic patterns, or risk. As a result, a variety of response barriers exist that negatively impact the efficient delivery of service to the community.

Current Service Demand

Rescue and EMS incidents accounted for 10 percent of the activity for the three fire departments combined emergency response activity for 2017 with EMS being only one percent. Many departments across the United States are experiencing the impact of emergency medical calls to be closer to 80 percent. This difference is directly attributed to the fact that neither fire department provides emergency medical response unless requested by the Town's ambulance service provider.

Of specific interest in the combined activity of the three departments is the fact that "false calls" accounted for 44 percent of the activity level. Statistically, this number is quite high and deserves further analysis on the part of fire department leadership and the Town of Monroe's Fire Marshal. This high amount may be the result of a data entry process issue due to staff members inaccurately recording the incident as a "false call." It is also possible that something could actually be causing the high number of "false call" responses, but the reality is that leadership needs to understand the causal effect and establish an intervention effort intended to reduce these instances of "false calls" wherever possible.

It is important to note that the three fire departments have an excessively high number of mutual aid calls "given" and mutual aid calls "received." Anecdotally, this can be explained as mutual aid given/received when responding in support of each other. However, in the current incident reporting mechanism, the departments do not differentiate between mutual-aid in support of each other within the Town of Monroe compared to mutual aid provided to fire departments surrounding Monroe.

ESCI conducted a comparison of the collective number of incidents the three fire departments responded to on a per capita basis. This comparison was conducted using the NFPA's data collection from fire departments throughout the nation. In total the three incidents per capita is significantly lower than both the urban and rural categories on a national level, and lower than regional departments at 45.3 incidents per 1,000 population. This regional number represents departments in this region of the country and may differ due the fact that the Monroe fire departments do not provide EMS transport services as reported in some comparably-sized jurisdictions. When the same data is used to compare the instances of fires per 1,000 population a different image is realized. The Monroe fire departments' incidents of 4.3 fires per 1,000 in population is comparable to other agencies within the region.

As part of this project, ESCI reviewed the fire loss per capita for the 2016 operating year compared with other national and region departments. While the per capita fire loss looks to be below both the regional and national comparators, it is important to note that there are distinct difference between the three fire departments in recording fire loss data. The fire departments serving the Town of Monroe are experiencing a fire loss rate lower than both regional and national medians for the 2016 reporting year. While the loss is lower than regional and national comparison, it is not necessarily a direct correlation to the departments' capabilities or quality of service, as many different factors impact fire loss. High among fire loss factors is the issue of early detection and fire suppression systems. Buildings that have properly working alarm systems allow for fires to be detected early and emergency response personnel to be notified. This allows fires to be extinguished in their earliest stages. In addition, buildings with properly working sprinkler systems tend to keep fires small until firefighters arrive and finish extinguishing the fire. Understanding this fire loss number can assist the department in its fire prevention and inspection programs.

Service Demand Projections

In evaluating the deployment of facilities, resources, and staffing, it is imperative consideration be given to potential changes, such as population growth, that can directly affect emergency workload. Changes in service demand may require changes and adjustments in the deployment of staffing and capital assets in order to maintain acceptable levels of performance.

As Monroe's population is forecasted to remain stable for several years to come, service demand can reasonably be expected to remain fairly stable as well. Due to the relatively low number of calls for service generated within the Town of Monroe in 2017, 598 calls for service, and demand related to mutual aid requests, 25 mutual aid requests for a total of 623 calls, even a 10 percent increase in service demand would have minimal impact to the system as demand would still average less than two calls per day. However, the Town of Monroe should track annual call volume to determine whether changes in demographics over time have a positive or negative effect on service demand over time.

Management Components

Effective fire department management is a common challenge for fire service leaders. Today's fire departments must address management complexities that include an effective organizational structure, adequacy of response, maintenance of competencies, a qualified work force, and financial sustainability for the future.

An organization should establish appropriate documentation, policies, procedures, and identification of internal and external issues that affect the agency. Processes must be established to address the flow of information and communication within each of the Monroe fire departments, as well as with their various constituents. These documents and processes also go beyond simple implementation, but must include regular review and revision as part of their normal operations.

The Monroe, Stepney, and Stevenson fire departments, as emergency services organizations, by necessity and mission must function in a paramilitary manner. Consistent service delivery is dependent on standardized rules, regulations, and policies that guide appropriate behavior and accountability. These guiding documents are vital for success in providing services at all levels and meeting the expectations of the citizens served by the Monroe fire departments. At the time of this report the three fire departments did not have standardized management processes and documents which creates an environment where inconsistency in operations exist.

Each of the three fire departments provide documentation and reporting of all incidents. In reviewing the record keeping and documentation activities of the three agencies it was apparent differences exist which create challenges when analyzing emergency incidents impacting the Town of Monroe. Additionally, each of the fire departments effectively maintain service records of critical pieces of equipment.

The leadership of each fire department has identified the issue of recruitment and retention of volunteers as the most critical issue facing the organizations. Chief among the critical issues facing the fire department is the ability to effectively recruit and retain volunteer personnel. Among these included an inability of younger volunteers to remain in the town after graduating high school due to the cost of living in Monroe. The departments have also identified the ability to muster an effective daytime response as a critical issue facing the departments. This has required the departments to develop a deployment model for daytime response that includes an “all-call” system in which all three departments are dispatched for responses between the hours of 6am to 6pm.

Each of the fire department have implemented policies and procedures addressing the security of facilities and vehicles. Physical facilities are secured using an electronic “fob” entry system unique to each person. Additionally, interior office and secured areas require higher levels of security using the same “fob” system. Some of the fire departments have implemented the usage of security cameras for added facility security. The expectation of each organization is that offices and computers will be secured when not in use, and passwords are required for access. Each of the departments have the ability to secure all vehicles inside of assigned facilities in most cases, but when the vehicles are outside of the building keys are to be removed and vehicles locked.

Staffing and Personnel Management

An organization’s most valuable asset is its people. It is important that special attention be paid to managing human resources in a manner that achieves maximum productivity while ensuring a high level of job satisfaction for the individual. Consistent management practices combined with a safe working environment, equitable treatment, opportunity for input, and recognition of the workforce’s commitment and sacrifice are key components impacting job satisfaction.

NFPA 1720 calls for a minimum of four firefighters on-site before an interior attack on a structure is begun in support of the “two-in/two-out” requirement. The two (or more) outside firefighters are in place to provide a rapid intervention team (rescue team) in support of the entry team. The “two-in/two-out” requirement, while not

a specific law in some states, is law within the state of Connecticut as part of OSHA 1910.134. Additionally, this standard has become the accepted "industry standard" for improving firefighter safety during fire suppression operations. The ability of a fire department to have the "two-in/two-out" team in place prior to beginning interior firefighting operations is a key factor in conducting a realistic risk assessment. Each of the departments have established policies addressing the requirement of "two-in/two-out" to be in place prior to beginning interior fire suppression operations.

Each of the three fire departments maintain policies and procedures specific to their agency. Recently the departments have begun to work toward the development of common operational procedures. In interviews with firefighters and leadership, the desire to work together in a collaborative manner has not always been a reality. It is worth noting that firefighters consistently indicated a desire to continue this initiative as they are seeing the positive results during emergency operations.

While each of the three departments which serve the Town of Monroe have their own organizational rules, culture, and practices, they are interdependent and collaborate during a significant emergency incident. The creation and existence of general or standard operating guidelines (GOGs or SOGs) speaks to the importance of ensuring a standard and consistent set of performance practices during an emergency. These guidelines are essential to ensuring that specific tasks are accomplished as well as task responsibility.

Each of the three fire departments have established processes and procedures addressing each organization's responsibilities in managing the records and reports used in their respective department's operation. However, these processes and procedures varying from agency to agency with varying degrees of effectiveness.

The 4th Needs Assessment of the U.S. Fire Service (2016) reports that only 20 percent of fire departments have a behavioral health program for personnel, however all three of the agencies provide some level of counseling services. Recent reports inform us that the rate of suicide by fire personnel far surpasses the number of line of duty deaths annually. The increasing instances of firefighters taking their lives by suicide is approaching epidemic levels across the United States. As a result, this has brought to light the issue of mental health wellness, suicide prevention, and the need for leadership to provide proactive training and counseling services to their staff members.

Fire and EMS Training Delivery

For training to be fully effective, it should be based on established standards. There are a variety of sources for training standards. All three departments utilize the National Fire Protection Association (NFPA) job performance requirements, International Fire Service Training Association (IFSTA) training materials, and Connecticut Firefighter Training standards as the basis for its fire suppression training practices, and national Emergency Medical Services standards are used as the baseline for medical training coursework.

Additionally, the three agencies operate under a National Incident Management System (NIMS) compliant ICS system and a compatible accountability. Firefighter training is consistent with NFPA 1001 with interior firefighter trained to a minimum Firefighter I level, and it is the goal of each agency to have personnel trained to Firefighter II level. Individuals not trained to the Firefighter I level may be assigned exterior operational duties based upon their individual training levels. Differing levels of training exists between the agencies relative to specialty rescue

(i.e., ice rescue), however, the three agencies have trained response personnel to the "operational" level for hazardous materials incidents.

Fire based training accounts for a majority of each agency's training activity at 67 percent, and EMS training accounts for the smallest portion at 3 percent of their training. The small amount of EMS training is not unexpected as the response to medical emergencies is not a primary responsibility of the departments. When the departments are called to respond to a medical incident, it is in support of the Town's EMS service. The remaining category identified as "other" includes a wide variety of topics that include driver training, hazardous materials, and vehicle rescue. A review of the general training competencies that are included in each fire department's fire-related training program reveals that the necessary baseline subject areas are addressed.

Each of the three fire departments conduct regular training and are generally considered to be consistent with accepted standards. However, the three fire departments have slightly different approaches to the overall management of their respective training programs. These differences are not critical to ensuring a properly trained emergency response force is capable of mitigating the typical emergencies experienced by the citizens of Monroe. However, improvements could be made to ensure each of the training programs are operated in a similar manner to ensure consistency across the three agencies.

Each of the departments indicate varying levels of training resources. Having one of the newer facilities within the Town of Monroe, the leadership of Stevenson indicates having a sufficient amount of area to conduct training with an acceptable number of props. However, Monroe and Stepney have limited space to conduct training efficiently. Absent a dedicated training location, the departments must utilize whatever open space is available (i.e., parking lots).

All three fire departments have established regular training schedules. The scheduling of training activities for all of the departments occur during evening sessions which is common among volunteer fire services across the United States. However, little coordination occurs among the three fire departments relative to common training schedules and training curriculums.

Quality training programs must be multi-faceted to truly accomplish an organization's training goals and objectives. The methodologies utilized must include hands-on training in addition to lecture-based presentations. All three fire departments provide for their personnel to use hands-on applications of training to enhance learning and demonstrate skill competency. However, the three departments conduct task performance and evaluation at different frequencies. Additionally, the three fire departments have established training officer positions and utilize formal lesson plans to deliver training.

In addition to NFPA standards and Connecticut training standards, the Insurance Service Organizations (ISO) provides specific training criteria utilized as part of its Fire Suppression Rating Schedule. The ISO training requirements include specific hours in night drills, multi-company drills, and pre-fire planning. While the departments provide some of these components, the effective documentation must be accomplished to obtain maximum benefit. A review of the training of each department indicates the departments do not specifically identify the ISO training categories. This issue was of concern in the 2013 ISO report as the three fire departments were only able to earn 1.67 points out of a possible 9 relative to the "credit for training" category.

The ability to train in a realistic environment is critical to developing and maintaining skills. Many of the skills necessary to be truly effective must be taught and practiced in a controlled environment allowing for skill development and yet ensures firefighters are as safe as possible. Additionally, ISO requires the regular usage of dedicated training locations to gain maximum credit for Public Protection Classification scoring. Currently, the three departments must utilize the State Training School facilities located outside of the response jurisdiction and available spaces within the community. The lack of a dedicated training facility caused a negative impact within the Town's ISO report.

Fire Prevention and Public Education

The Town of Monroe operates an active fire and life safety program which supports code enforcement, public fire and life safety education, cause and origin investigations fire prevention program components and the associated elements for each. Interviews conducted during the site visit established that the Fire Marshal and staff have a healthy appreciation of fire prevention within the community. The Fire Marshal clearly understands the significance of having a quality program that is valid and credible if the Town is to effectively serve its constituents. The Fire Marshal is a full-time staff member and is supported by four part-time Deputy Fire Marshals

The Town of Monroe Fire Marshal is responsible for conducting a variety of code enforcement and building inspections and enforcing the 2018 edition of the Connecticut State Fire Prevention Code and State Fire Safety Code (based on 2015 edition of NFPA 1—Fire Code). These duties include code enforcement, annual building inspections, including educational institutions, and plans review for new construction projects, in addition to other prevention-based programs.

The Monroe Fire Marshal's Office conducts annual inspections for the approximately 425 commercial, educational, and multi-family residential buildings (those with more than two units) within the town, encompassing structures in all three fire districts. Additionally, the Fire Marshal's Office conducts site visits and develops pre-emergency plans for at-risk buildings and specific occupancy types (e.g., places of assembly, target hazards, etc.).

The Fire Marshal's Office and staff are generally responsible for fire investigation duties within the Town. Each of the Fire Marshal's staff members are certified by the State of Connecticut as Fire Investigators in conformance with NFPA 921 standards governing fire investigations. The Town's Fire Investigators are not sworn *peace officers, nor police officers*, as such, the Fire Marshal's staff works closely with the local police, especially when investigations duties require such assistance. Should an investigation necessitate assistance or specific expertise the local investigations team can request assistance from the State.

In reviewing the data collection and analysis processes currently utilized between the three fire departments and the Town's Fire Marshal's Office it was recognized that some inconsistencies exist. The presence of an effective data collection and analysis ensures the Town to record incident data and produce reports. Absent an effective process, the departments and Town cannot plan and establish departmental operations and adjust procedures.

Emergency Communications

Dispatch services are provided for the fire departments serving the Town of Monroe by the Southwest Regional Communications Center (SRCC). ESCI met with representatives from the dispatch provider to gain an understanding of the overall dispatch operations and its impacts upon emergency response within Monroe. The

conversation centered around each of the dispatch facilities involved, current operations, and any future plans for change.

The operation of the dispatch center is funded by Southwest Regional Communications Center with the Town of Monroe contributing approximately $66,000. In 2017, SRCC dispatched the three fire departments serving the Town to 596 incidents, as well as the Monroe Volunteer Emergency Medical Services.

It is considered to be an industry “best practices” to establish professional standards to ensure quality dispatch services are provided. NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems and 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 are considered two of the standards by which communications center operations should be established and monitored. These standards identify performance measures relative to the amount of time it takes a communicator to answer 911 calls and the amount of time it takes to process the 911 call for dispatch of fire apparatus. It is recommended that the leadership of the three fire departments and Town of Monroe leadership work with SRCC to ensure compliance with 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.

Service Delivery and Performance

In the demand analysis, ESCI reviewed current and historical service demand by incident type and temporal variations for the Town of Monroe. GIS software was used to provide a geographic display of demand within the study area. National Fire Incident Records System (NFIRS) data, incident response data, and apparatus response data collected by the department was utilized. In 2017, 598 calls for service were requested within the town boundaries of Monroe and the three departments responded to a total of 623 calls when mutual aid requests were included. Automatic fire alarms and motor vehicle crashes accounted for nearly 61% of the collective call volume among three fire departments.

Service demand directly correlates with the activity of people, with workload significantly increasing during daytime hours and decreasing during nighttime hours. Specific to Monroe, incident activity is at its highest between 7:00am and 9:00pm, accounting for more than 86 percent of calls for service. This is a significant issue for the Monroe fire departments as these time periods are the same timeframes in which volunteer personnel are committed to work and other personal demands. Slightly more than 72 percent of the combined call activity occurs between the hours of 6:00am and 6:00pm. This is a factor the three fire departments have come to understand anecdotally and have adjusted daytime response to automatically dispatch all three fire departments during this time to ensure enough members can respond to effectively manage and incident.

ESCI utilized the two most common standards in the fire service to determine the distribution of Monroe’s fire department resources. The first, and most common, standard is the Insurance Service Organization’s (ISO) application of road miles from a fire station and water supply measurement. The second standard comes from the National Fire Protection Association (NFPA) standard 1720: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments and utilizes a time component coupled with “fractile" reporting of response times. ESCI used these two standards in tandem to understand current service level capabilities the three fire departments.

It is important to note that the stations are not strategically placed based upon any previous analysis, but most likely resulted simply from the availability of land to build upon. An important consideration when evaluating the town's fire services distribution is that each department does not have an "equal" amount of coverage area.

ESCI also analyzed the population densities with the response areas of each fire department. The response area of the Monroe Volunteer Fire Department has multiple densities exceeding 1,000 people per square mile. The response area of the Stevenson Volunteer Fire Department generally has population densities of less than 1,000 people per square mile and the composition of the Stepney Volunteer Fire Department has a mixture of high and medium population densities per square mile. The Monroe Fire Department is identified as having the largest incident count of the three fire departments and Stevenson having the least amount. This is not necessarily indicative of service quality but is more reflective of call volume being correlated with the population counts within each station's response area.

In utilizing the Insurance Services Organization (ISO) standard ESCI analyzed all "built upon" areas of Monroe to determine properties within 1.5 road miles of an engine company and 2.5 miles of a ladder company (aerial apparatus). Additionally, ESCU identified all properties within five miles of a fire station to determine properties eligible to receive a fire protection rating for insurance purposes. This review indicated that all properties within the Town are within five miles of a fire station and as such are eligible for a fire protection rating from ISO. As a result of this analysis it is apparent that the two Stepney stations are not located in a manner that maximizes the ISO fire protections scoring. Both of these stations are situated in a manner that hale of their 1.5 mile coverage areas extend outside of the Town.

Additionally, an analysis of Monroe's distribution of resources using NFPA 1720 indicates the fire departments can respond throughout the Town in eight minutes or less. It is important to understand these travel times are "predicted" and can be affected by variable outside of the fire departments' control (i.e., traffic, weather). Specific information regarding actual response performance by each company is presented in the response performance section of this report.

Capital Assets and Assessment of Current Infrastructure

Collectively, the three fire departments maintain a balance of three basic resources that are needed to carry out its emergency mission: people, equipment, and facilities. In total, the Town is served by six fire stations and millions of dollars-worth of capital assets. These assets are necessary to provide service and must be maintained and replaced as needed. A comparison of major capital assets, including fire engines, aerial ladder trucks, and fire stations indicate the three fire departments exceed national medians, based on the data provided by NFPA. It is important to note that this comparison is only one of several factors utilized in determining the infrastructure a community utilizes in determining capital inventory levels.

Future System Demand and Models

In understanding future system demand it is imperative to analyze a variety of factors. Two key factors in this analysis are department activity and historical populations. ESCI reviewed Monroe's historical population from 1970 to 2016, and established projected population growth into 2050. From 1970 to 2000 the population of Monroe increased by approximately 59 percent. However, from 2000 to 2016 the growth has essentially

plateaued. As a result of this relatively flat population growth it is reasonable to expect the demand on service to remain relatively flat.

In order to construct a future service demand estimate, historical data for multiple years in needed to establish whether or not any trends are present and if a relationship between population and demand exists. ESCI received data from both the individual department's Records Management Systems (RMS) and from the communications center during the course of the study; however, only one year of data, 2017, was complete for the Town of Monroe from both sources. Because of this, forecasting for future trends was not possible.

As Monroe's population is forecasted to remain stable for several years to come, service demand can probably be expected to remain fairly stable as well. Due to the relatively low number of calls for service generated within the Town of Monroe in 2017, 598 calls for service, and demand related to mutual aid requests, 25 mutual aid requests for a total of 623 calls, even a 10 percent increase in service demand would have minimal impact to the system as demand would still average less than two calls per day.

Development of Response Standards

ESCI emphasizes the importance of establishing response performance metrics by the three fire departments serving Monroe. Once implemented, these standards establish measurable goals for service delivery, which then form the foundation upon which planning for deployment of resources is based. Absent these processes, the organizations are not able to determine where specific actions to take, nor is it possible to determine effectiveness in achieving goals and meeting the community's expectations. At the time of this study the departments do not report response times in a manner consistent with NFPA standards. This is not a difficult issue to correct in the fact that the records management system utilized is capable of producing these results with minor adjustments within the system.

In the design of an operational structure for a fire department, interested parties attempt to identify some standard or "rule" that establishes staffing levels within a fire department. However, the reality is no single staffing standard exists within the United States that mandates staffing levels of a fire department. There are however NFPA standards addressing the number of firefighters that should be on-scene to accomplish specific tasks safely and effectively. These standards are known as NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, and 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, and apply to either career organizations or volunteer organizations respectively. As an all-volunteer operation NFPA 1720 would be the appropriate standard to apply in establishing response standards and measuring performance.

Recommendations

The report concludes with a list 11 strategic initiatives and 47 short-term and long-term recommendations that have been identified throughout the body of the report. These recommendations are intended to assist the Town and fire department leadership teams in planning for future service delivery to the citizens of Monroe.

EVALUATION OF CURRENT CONDITIONS

Stakeholder Meetings

The beginning is the most important part of the work.

In order to dedicate time, energy, and resources to the functions that are most desired by its customers, the Monroe Fire Departments and the Town of Monroe must understand the customers' priorities and expectations. A set of facilitated constituent meetings were utilized to obtain community perspective regarding fire department operations. Invitations were extended to community leaders, business owners, and citizens to participate in an external stakeholders' meeting during an ESCI's site visit, with interviews focused on external stakeholder areas of concern, areas of strength, expectations, and response times. The following figures represent the data collected from the external stakeholder groups.

Figure 1: External Stakeholder Ares of Concern

What do you feel are the areas of concern with the Monroe Fire Departments?
Concerned about potential for dwindling volunteers. Also continue proper oversight of the departments.
They are widespread between the three departments.
Need to consolidate all three separate fire departments into one Town Fire Department and have someone oversee all three locations. To maintain all apparatus, safety gear, and facility needs. Coordinate a rotation cycle for all capital needs to keep each department in compliance with all safety measures. Coordinate and maintain recruitment of volunteers.
Approximately 600 calls a year and six firehouses with three different command staff and purchasing variances (operational and capital) seems inefficient. Volunteer availability—recruiting, training, and staffing concerns.
Coordination of services; optimal firehouse locations to minimize response times; appropriate fire engines/equipment; adequate training and safety equipment.
Their facilities are old and are in need of improvement. Failure to do so could adversely affect morale.
They may not have sufficient "trauma" recovery resources (PTSD).
Lack of recruitment.
Lack of volunteers, possibly because of time commitment needed.

Figure 2: External Stakeholder Areas of Strength

What do you feel are the areas of strength (pride) in the Monroe Fire Departments?
Amazing personal commitment of volunteer staff.
They are very responsive and effective.
Committed to saving lives and safety.
Up to date instruction on new methods and materials, pride in what they do and are trained for.
Excellent equipment and response by fire personnel.
Responsiveness, dedication, personable.
They are very dedicated and clearly take pride in their work.
They are dependable.
I've found them to be very responsive, knowledgeable, polite, and willing to educate on what brought them to our home.
Community spirit.
The size of the department(s).
Their love of the community and dedication to their neighbors.

What do you feel are the areas of strength (pride) in the Monroe Fire Departments?
Their community presence that helps us feel safe and protected.
Proud of our volunteers always being willing to step up and help in any situation even when no fire related.
Dedicated volunteers that live in the community.
Community outreach.

Figure 3: Expectations—External Stakeholders

What are your expectations of the Monroe Fire Departments?
Proper budget presentation and fiscal management.
To have them provide quality service in the most time efficient and cost-effective manner to the Town.
Keeping the community safe by educating residents about fire safety and what to do. Precautionary measures such as fire alarms and fire extinguishers in homes.
Will always have most expedient methods for fighting fires.
Expectation is that they have the correct resources to do the job and a plan to adequately House and take care of those resources.
Need them to be acting as one unit to serve the people of Monroe.

Figure 4: Level of Service Improvements—External Stakeholders

In what ways could the fire departments serving Monroe improve levels of service?
More volunteers.
Organization between the departments.
Working together on all levels. Eliminate segregation of departments.
Unknown—assumed more efficiency with centralized command structure to recruit train and maintain services while reducing cost of operations.
Continue to be determined.

Figure 5: General Impressions—External Stakeholders

What is the general impression of the fire departments serving Monroe?
I think overall impression is of dedication and commitment.
High!
Dedicated volunteers who serve the community to save lives.
Excellent volunteers.
Very good reputation—very responsive. Fragmented assets including fire houses.
They are a hard-working group of firemen/women who excel at helping people.

Figure 6: Citizen Impressions of Effectiveness

In what areas is there a belief that the fire departments serving Monroe are perceived as being inefficient or ineffective?
Some have questioned the lack of accountability of monies given by the Town.
Need to be maximizing efficiency in what is needed to consolidate between the departments.
Having three independent fire departments and leaderships have their goals going in different directions. All three serve the community and should serve in unity. They are all selfless and remarkable volunteers who do what they love to protect our families. There is nothing inefficient or ineffective in that if they all work together as a team.
Six different fire houses with multiple sites to maintain. Inefficiencies in supply ordering should combine with Town purchasing power or at least centralized in fire command.
Three different departments may lead to duplication or gaps in services; may cause issues from miscommunication; may raise overall costs.

Figure 7: Fiscal Efficiency Perceptions—External Stakeholders

Do you see the Monroe Fire Departments as being fiscally efficient organizations?
Yes, to the best of my knowledge.
I assume so.
I believe they are. If they could work together for training and other things, their fiscal efficiency could be improved.
Unsure.
Yes.
No; three separate budgets is inefficient.
Yes, however, would think they could benefit and cost save by being a unified department.
I don't think I'm qualified to judge.

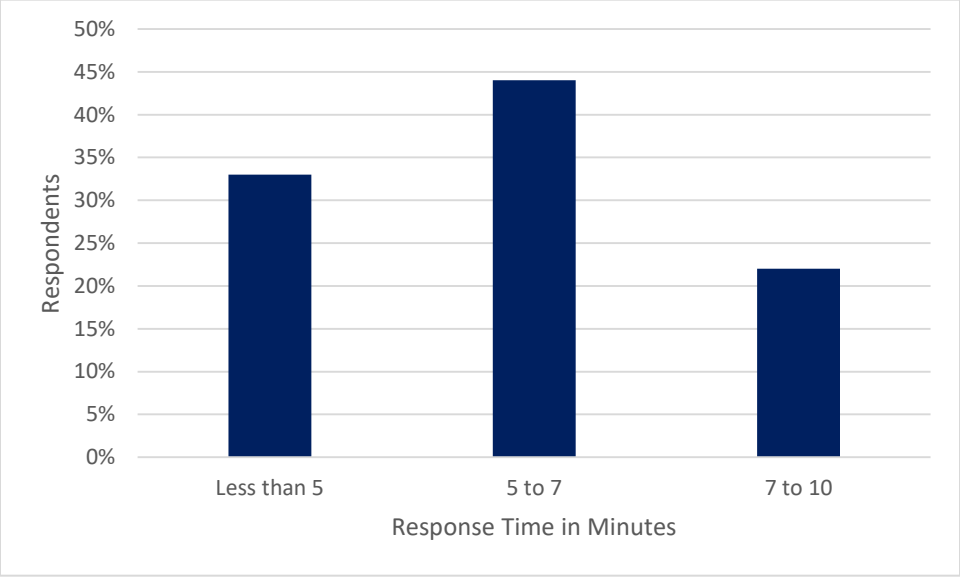
Outside of firefighting, participants in the external stakeholders meeting generally believe the Monroe Fire Departments to be capable in serving the needs of the community. Constituents felt generally positive in the areas of hazardous materials, water emergencies, and vehicle accidents. Relative to mass casualty and medical emergencies, the respondents generally indicated they were unsure of each department's capabilities.

When asked about utilizing the services of a fire department serving the Town of Monroe, 66 percent of the respondents indicated they had contact with a at least one of the fire departments one to five times in the previous year. In all these cases, the respondents rated their experience as "excellent." Additionally, several of the respondents who had not been in contact with the department in the previous year had done so previously and also rated their experience as "excellent." When asked if the Monroe Fire Departments, collectively, were an organization the respondents would want responding to the emergency of their family all indicated "yes." When asked about their individual satisfaction with the "level of service" provided by the Monroe Fire Department all respondents indicated "yes."

In each of the interviews, respondents were asked about the importance of adhering to "national standards" for firefighting, all indicated it as either "important" or "very important." Several of the respondents indicated that while the adherence to national standards was a high priority, the reality is that some standards cannot be one-size fits all and may have to be adjusted dependent upon the region or needs of the Town of Monroe.

Participants in the external stakeholder interviews were asked to priority rank a list of "tasks" the Monroe Fire Department should provide. Overwhelmingly, the respondents indicated that fire suppression should be the number one priority of the departments. Following fire suppression, the technical rescue disciplines (i.e., trench, confined space, high angle, ice rescue) and fire prevention. Low on the list of priorities was welfare visits, code enforcement, and emergency medical services.

Figure 8: External Stakeholder Expected Response Times, Fire



External stakeholders were also asked how quickly they expect personnel and equipment to arrive on scene of a fire or rescue emergency. Nearly 45% of the external stakeholders indicated a response time of five to seven minutes for fire emergencies. Collectively, slightly more than 75% of the respondents indicated an expectation of a response of less than seven minutes.

Planning Meetings

The Center for Public Safety of Excellence's Commission of Fire Accreditation International (CFAI) defines strategic planning as "…a process by which an organization envisions its short-term future and conducts the necessary analysis to effectively plan for that future." It can be further defined as the process by which members of an organization determine what it intends to be in the future and how it will get there. To put it another way, they develop a vision for the organization's future and determine the necessary priorities, procedures, and operations (strategies) to achieve that vision.

Of far greater importance is the ability to swiftly revise tactics to meet changing requirements of constantly moving, and at times, shrinking revenue sources. Success in today's environment requires leaders to have the ability to create a vision of the organization's future direction, as well as, identify a plan to get there. Given the contraction and downsizing of the economy, organizations have been forced to rethink strategies related to service levels and delivery. The most successful strategies have been ones with specific plans and implemented with employee involvement.

A strategic planning process that includes development of a plan with continuous monitoring, revision, and updating will create an environment that prepares a fire department for adjusting to difficult times while maintaining its ability to provide services. The level of service that is provided may not be the same as before, but the current environment could very well establish a new set of expectations and redefine how services are provided. Strategic planning is a process by which adapting to changing environments is manageable with participation from the entire organization. It also provides a format for conducting a visionary approach to service delivery and allows an organization to be prepared for anticipated changes or to even modify its service delivery before change is forced upon it.

The very nature of a strategic planning process allows for flexibility to an ever-changing environment. This plan allows for the prioritization of work on organizational goals and objectives, while incorporating critical tasks into the annual budget process. The plan will serve as a reference and a means to measure progress throughout the upcoming years.

> *"What we have to do today is to be ready for an uncertain tomorrow."*
>
> Peter F. Drucker

Strategic Planning Process

The process included an internal environmental scan; prioritization of the scan results; a one-day planning session, which included a SWOT analysis; review of the strategic planning process; review of the environmental scan; review of the mission, values, and vision of the department. These sessions were conducted in two different time periods to allow as many members as possible to participate. The initial meeting in conducting the SWOT was held immediately following a shift change to improve the possibilities of career shift staff being able to attend. In this meeting, nearly all of the shift personnel attended and actively participated. The second meeting in the SWOT was held in the evening to allow for a higher participation rate relative to volunteer personnel. Personnel were allowed to attend either of these meetings based upon their personal schedules and input from participants in both sessions was high. In addition, the anonymous surveys of these two groups resulted in a significant number completed and the information used as part of the SWOT sessions.

Mission Statement

The purpose of the Mission Statement is to answer the following questions about an agency:

- Who are we?
- Why do we exist?
- What do we do?
- Why do we do it?
- For whom?

At the time of this report, each of the fire departments serving Monroe had existing "purpose" statements within their respective organizational by laws. However, a common mission statement answering the above questions in serving the citizens of Monroe did not exist. While the purpose statements met the needs of the individual organizations, the lack of a common mission statement did not allow for a collective and consistent approach for establishing a mission serving the Town and its constituents. During the internal stakeholders' meetings, a discussion was facilitated on the content, representation, and application of an adopted mission statement. Feedback was obtained regarding various components an effective mission statement. Several draft versions of the mission statement were created and provided to the fire departments for consideration. With the approval the three fire departments, the following common mission statement was created:

"It is the mission of the Monroe, Stepney, and Stevenson fire departments to provide fire suppression and rescue services to the citizens of the Town of Monroe in an efficient and effective manner with the best resources provided by the community."

Values Statement

As part of identifying the core values common among the three fire departments a two-step process was conducted. The first step in the process involved an electronic survey of the members of the three fire departments. The electronic survey was used to narrow the possible core values to a list of ten possible selections. Upon narrowing the list, an in-person meeting was conducted and the attending members were again surveyed to further identify the top four values. The results of this exercise were tallied and organized which produced four values that internal stakeholders felt best represented the foundational behavior expected of all members of the three fire departments. These values should represent the culture that prevails in each of the fire department's everyday decision making, operations, and character. Collectively, the members have identified the following values as the core of their organizational behaviors:

- Commitment
- Teamwork
- Trust
- Integrity

Vision Statement

At the time of this report, the fire departments serving Monroe did not have an existing vision statement. As a result of conversations with internal stakeholders the following vision statement was developed.

> *"To be recognized as an organization that is a service driven in providing the highest quality fire and rescue services with exceptional leadership, highly trained personnel, and a motivated volunteer workforce. We desire to be viewed as an organization that is dependable, compassionate, and sets the standard by which other fire departments are measured."*

Plan Implementation and Success

Provided the community-driven strategic planning process is kept dynamic and supported by effective leadership and active participation, it will be a considerable opportunity to unify internal and external stakeholders through a jointly developed understanding of organizational direction; how all vested parties will work to achieve the mission, goals, and vision; and how the organization will measure and be accountable for its progress and successes.[1]

Each of the fire departments serving Monroe must utilize this plan to focus resources, measure success, and ultimately improve service delivery to its customers. Robert Collier, one of America's original success authors, said, "Success is the sum of small efforts, repeated day in and day out." While this plan provides the road map to accomplishing the vision of the Monroe fire departments, it will be the commitment of the customers, members, and elected officials that make the journey successful.

[1] Center for Public Excellence (2009). CPSE Fire & Emergency Service Self-Assessment Manual (9th ed).Chantilly, VA.

Stakeholder Feedback

Environmental Scan—Internal Stakeholder

As part of the environmental scan with the internal stakeholders, a facilitated discussion was conducted to identify areas of concern, areas of pride, and expectations of the three fire department members. This facilitated session included "non-chief officer" members to ensure participant feedback was not limited by the presence of senior leadership.

Figure 9: Areas of Concern—Internal Stakeholders

What do you feel are the areas of concern with the Monroe Fire Departments?
Working better together. Works ok now but could be better.
How do we get viewed as single department?
Getting the town to understand how they operate and who they are.
Three departments "trying to operate" as one.
How to have consistent operating "as whole" through policy (standard scene/operations, tri-company SOGs).
Need to realign response districts.
Need to improve cooperation among purchasing.
Turnover of political officials and having to re-train them when they are elected.
People living in one district and responding out of another.
Weakness in doing on-scene accountability.
Personal accountability.
Cost to live in Town. It's cheaper to live somewhere else.

Figure 10: Areas of Strength—Internal Stakeholders

What do you feel are the areas of strength (pride) in the Monroe Fire Departments?
Good at fighting fires.
The departments have a good image with the citizens.
Departments operate well together, and people like each other.
Excellent responses to motor vehicles crashes.
Take pride in their jobs.
Taking care of each other (and other departments) during family crises.
Excellent cooperation between mutual aid departments.

Figure 11: Expectations of Department Leadership—Internal Stakeholder

What are your expectations of the Monroe Fire Departments Leadership Personnel?
Don't make decisions in silos.
Communicating the background (how and why) of each decision.
Transparency in decision-making.

Figure 12: Expectations of Town Leaders—Internal Stakeholders

What are your expectations of the Town of Monroe Leadership?
Want to be involved in the decision-making processes in the evolution of the fire services.

Collectively, the members of the three fire departments were asked to participate in an "anonymous" electronic survey. Data from 66 survey respondents were compiled into a spreadsheet, organized, and categorized and the analysis is provided in the following section. The results of this anonymous survey can be found in Appendix A.

Department Leadership

Relative to department leadership, the survey included questions designed to provide an understanding of how the respondents viewed the leaders' abilities to be forward thinking and innovative, have clear goals and objectives, communicate with personnel, and communicate with the other departments. When responding to whether their leaders are forward thinking, have clear goals and communicate well with personnel, more than 70 percent of the respondents either agree or strongly agree.

When asked about the ability of leadership's ability to communicate well with the other fire departments only 33 percent of the respondents agreed with 52 percent indicating they neither agreed or disagreed, or disagreed. While this may not be truly reflective of the inter-departmental communication, the reality is that this is a strong perception on the part of their members. This is an area in which the leadership of the three departments must address.

Inter-Departmental Cooperation

In serving the Town through three separate fire departments, it is imperative for the departments to have a high level of cooperation and trust. When inquiring as to the cooperation and trust among the fire departments, the respondents positively indicated that trust (67 percent) and cooperation (73 percent) at either agree or strongly agree. As the departments continue to serve the Town of Monroe, this is a significant factor for the fire department leadership teams to use as a foundation for advancing necessary changes.

Facilities and Apparatus

Relative to facilities and buildings, 58 percent of the respondents indicated they either agreed or strongly agreed that the current inventory of facilities supported the operational aspects of serving the Town. However, relative to good maintenance, only 47 percent indicated agree or strongly agree, and 26 percent indicated disagreement. In conducting the site visits, ESCI's site team found the facilities to be generally well-maintained and capable of serving the community.

When responding to survey questions focusing on apparatus and support vehicles, 93 percent either agreed or strongly agreed the apparatus are well-maintained. Additionally, 85 percent of respondents either agreed or strongly agreed the current inventory of apparatus were capable of effectively meeting the needs of fire departments in serving the community. As with the facilities, the ESCI site visit team found this to be accurate.

Training

When questioned about access to training, 97 percent of the respondents indicated as agreeing or strongly agreeing with being afforded opportunities to receive training. Ninety-one percent of the respondents indicated they had taken advantage of these training opportunities and 81 percent indicated they have received training allowing them to effectively perform fire suppression operations. Of the respondents, 82 percent indicated a positive belief that the training format used by the fire departments was effective to maintain skill and proficiency.

When asked about the training of personnel in the more advanced skill sets needed for the positions of "pump operator" and officer development, were generally positive. Specific to "pump operator" training, 65 percent indicated as either agreeing or strongly agreeing that the training was appropriate.

Officer and Command Staff Development

While the training of firefighters and pump operators was considered to be positive in its effectiveness, the same is not believed for the development of higher-level officers. When inquiring as to the effectiveness the belief that the training of officers was not as effective. Specific to the development company officers, only 47 percent of the respondents positively indicated the training as effective, and 50 percent indicated the training of command staff as effective.

Policies and Procedures

In responding to survey questions relative to policies and procedures, the respondents indicated positively that they supported departmental and administrative activities. When asked about supporting the administrative activities of the departments, 78 percent responded positively, and 84 percent indicated positively the belief the policies and procedures supported fire suppression operations. These two factors are significant in the continued movement of the three departments toward common operational procedures.

Department Culture

In responding to the survey, it became clear that a positive culture exists within the three fire departments. Respondents indicated that 94 percent believed fire department members treat the citizens of the community with respect/courtesy, and 90 percent believe the members to be service oriented. Seventy-three percent of the respondents indicated positively that members are courteous to each other and 85 percent believe the members work well together. Additionally, respondents positively indicated personnel are motivated to do a good job (82 percent) and have a positive outlook on their job (76 percent). Sixty-seven percent of the respondents indicated a belief that the departments have established high expectations of their members and are held accountable (74 percent).

Relative to engaging the community, 66 percent indicated positive in the belief that the departments do an excellent job of engaging/involving the community. Seventy-one percent of the respondents also indicated that the departments make an intentional effort to work with partners for civic events.

Fire Prevention and Public Education

While code enforcement and public education are not specifically aspects of the three fire departments serving the community, the reality is that these activities are connected to their regular activities. In surveying the members, the fire prevention and public education are viewed positively. Sixty-six percent of the respondents believe the public education programs are effective in preventing fire and addressing life safety concerns. Additionally, 61 percent believe the Town's fire inspection program is effective in reducing the instances of fire.

Strategic Planning Process

SWOT Analysis

The Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis is a vital exercise for the purposes of identifying a game plan for future organizational improvement. This process is challenging because it requires the internal stakeholders to analyze with a critical eye the organization as a whole. The identification of these four elements provides the foundation for the identification of service gaps and critical issues utilized when addressing and identifying goals and objectives.

During the site visit, a general meeting was held during with internal stakeholders. This session included volunteer members of the three fire departments. During this session, data collected through the anonymous survey was reviewed. Participants were provided the opportunity to comment on the results of the survey and make any general observations. In large part, the internal stakeholders group did not find the results of the survey surprising.

Following the review of the collected data, internal stakeholders were asked to participate in a facilitated SWOT analysis. Participants were encouraged to contribute in the process and add to the information gathered during the previous site visit. The results of the SWOT analysis are as follows:

Figure 13: Strengths

Strengths		
Teamwork	Communication (inter-departments)	Good reputations
Interoperability (working together)	Trust	Good equipment
Coming together as one	Friendship, camaraderie	Strong core group (experience)
Stronger together	Train together	Standardized equipment

Figure 14: Weaknesses

Weaknesses		
Not training together enough	Lack of respect (between persons)	Personal agendas
Aging volunteers force (not enough young people coming in)	Acceptance of new ideas	Personal accountability for a segment of organizations
Recruitment	Lack of change agility	Same people doing a majority of the work (burnout)
Commitment	Afraid of conflict (leadership)	Forgetting that people are volunteering because of good will
Passion for the job by new members	Inconsistent implementation of policies	Entitlement

Figure 15: Opportunities

Opportunities		
Standardization of operations	Better utilization of response personnel (i.e., volunteering in district they live in)	Maintain volunteer system of operation
Collaboration	Focus on achieving results	"live in"/work program
Maintain/improve image	Economy of scale (coordinate/communicate purchases)	
Personal and professional development	Social media	

Figure 16: Threats

Threats		
Too broad of a focus	Changing political environment	Lack of state funding for training
Lack of time for volunteers (life demands)	Adequate funding	Societal changes (millennials)
Recruitment/retention	Daytime responders	Loss of organizational identity
No affordable housing	Increasing training requirements	Social media

Organizational Overview

The Organizational Overview component provides a review of the organization, discussing the agency's configuration and the services that it provides. Data provided by the fire department leadership teams serving the Town of Monroe and Town personnel was combined with information collected in the course of ESCI's fieldwork to develop the following overview.

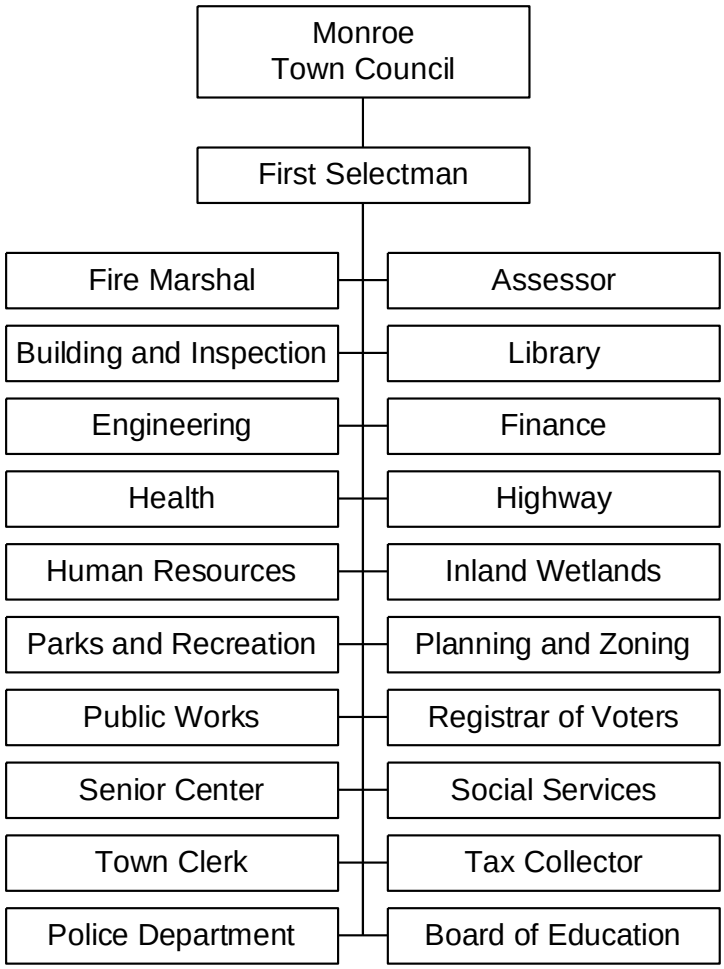
The purpose of this section is two-fold. First, it verifies ESCI's understanding of the agency's composition and operation. This provides the foundation from which the strategic plan is developed.

Secondly, the overview serves as a reference for any reader who may not be entirely familiar with the details of the agency's operations. Where appropriate, ESCI includes recommended modifications to current observations based on industry standards and best practices.

Governance

The very basis of any service provided by governmental, or quasi-governmental agencies, lies within the policies that give that agency the responsibility and authority upon which to act. In most governmental agencies, including Monroe, those policies lie within the charters, ordinances, and other governing documents adopted by each agency. Figure 17 provides a general overview of Monroe's governing structure and lines of authority elements.

Figure 17: Monroe Governing Structure



The Town of Monroe was founded in 1823 and is a legally established unit of local government under the general laws of the State of Connecticut. Legislatively, the Town is governed by a nine-member council who are elected at large Under the Town Charter, the First Selectman serves as the Town's chief executive officer and is elected to a two-year term.[2] All department heads employed by the Town are responsible to the First Selectman. The specific duties of the First Selectman are outlined within the Town Charter. The First Selectman is responsible for appointing each department head and serves as ex-officio of all boards, commissions, and special committees.

Under the current Town Charter, the Town does not operate a fire department, but relies upon three separate volunteer fire departments who are legally established as either 501c3 (Monroe) or 501c4 (Stepney and Stevenson) corporations. However, the Town does have an established Fire Marshal's Office which is under the direction of the First Selectman. The Fire Marshal's Office consists of a full-time Fire Marshal who is supported by an administrative assistant and four Deputy Fire Marshals who are paid on a per diem basis. While not required, the Town's Fire Marshal is a member of the Monroe Volunteer Fire Department. ESCI makes no recommendations relative to the IRS status.

Each of the department's serving the Town is led by a Fire Chief who is elected by the respective memberships. Under the current operational arrangement between the Town and fire departments, the Town has no administrative or operational control over any aspects of the three departments. At the time of the ESCI site team visit no formal written agreement existed between the fire departments and the Town. It is recommended the Town and the three fire departments enter into a single contractual agreement establishing the performance standards and expectations of all parties.

Each of the three fire departments utilize an elected Board of Directors to provide a general governing structure as required by their respective articles of incorporation. In general, these boards are responsible for setting the strategic direction of the departments through the establishment of policies and budgets. These policies are then, in turn, used by the Fire Chief to carry-out the daily operations. The chain of command for each department is clearly delineated and representative of other fire service providers across the United States. ESCI found that the governance of the fire departments are loosely defined in the way they are configured.

Organizational Design

The structural design of an emergency services agency is vitally important to its ability to deliver service in an efficient and timely manner while providing the necessary level of safety and security to the employees of the organization, whether career, paid-on-call, or volunteer. During an emergency, an individual's ability to supervise multiple personnel is diminished due to the high-risk consequences associated with emergency incidents. As a result, industry standards recommend a span of control of four to six personnel under high-risk situations. This is an operational concept carried forward from military history and has shown to be effective in emergency service situations.

In addition, employees tend to be more efficient when they know to whom they report and have a single point of contact for supervision and direction. A research project conducted by the Columbia University, Northwestern University, and University of Queensland, Australia, found that:

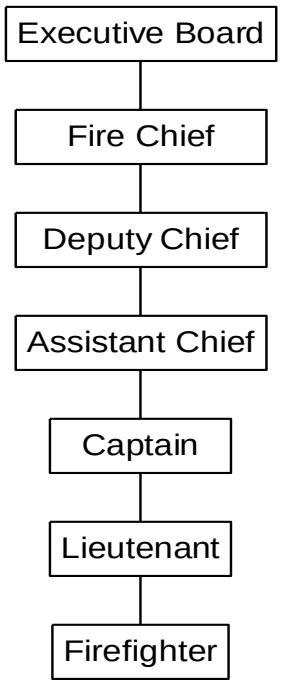
[2] 1. Chapter C, Charter, February 17, 2018.

…when there are tasks that require teamwork, people get more done when there are leaders and followers. Without a clear chain of command, members often become sidetracked with grabbing power and lose track of the task at hand.[3]

Organizational Structure

To operate effectively the structure of a fire department needs to be clearly defined in the form of an organizational chart. The chart institutionalizes the agency's hierarchy, identifies roles and, most importantly, reporting authority and helps to assure that communication flows appropriately, as well as limiting opportunities to circumvent the reporting structure. The following organizational charts show the formal reporting process for each agency. It is important to note that when the chain of command is violated it can cause a great deal of disruption to the organization.

Figure 18: Monroe Volunteer Fire Department Organizational Structure



[3] "Why Hierarchies are Good for Productivity," *Inc*. September 2012, p 26.

Figure 19: Stepney Volunteer Fire Department Organizational Structure

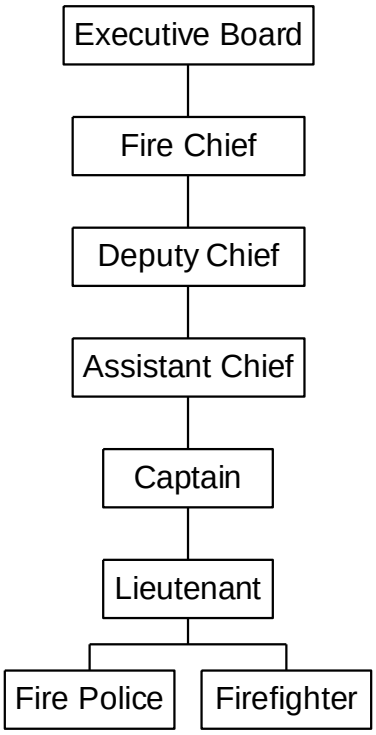


Figure 20: Stevenson Volunteer Fire Department Organizational Structure

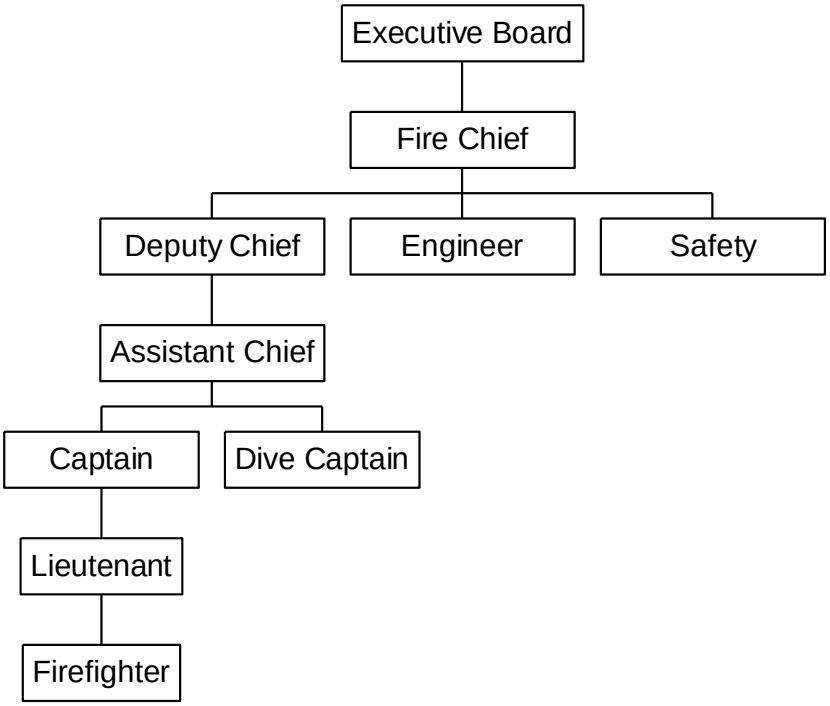
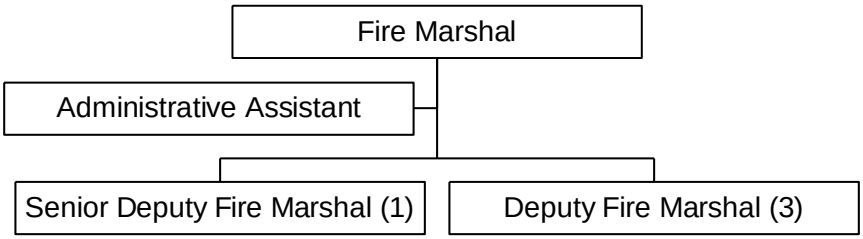


Figure 21: Monroe Fire Marshal's Office Organizational Chart



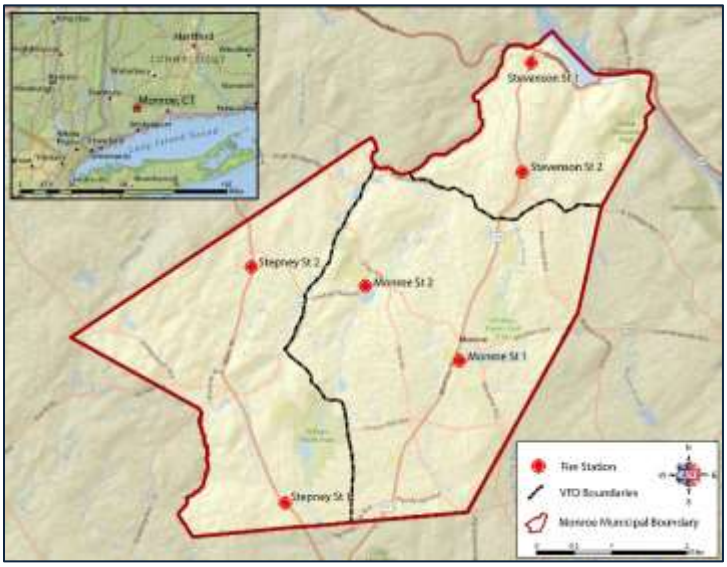
Each of the fire departments serving Monroe has developed and adopted an organizational chart that achieves this purpose. The identified structure of each organization is similar to most other fire departments across the United States. However, the three departments do have slightly different positions. It is recommended the three departments work to establish a common organizational structure to reduce the likelihood of confusion during emergency scene operation. The departments all operate in a traditional top-down manner and lines of authority are clear. These lines of authority should be carefully protected against communications external to the chain of command except in unusual circumstances.

Additionally, from an administrative standpoint, the leadership of each fire department interacts with the Town in a relatively independent manner. This situation has required each Fire Chief and their respective support members to expend a significant amount of time performing administrative tasks that take them away from leading and directing their respective agencies. In interviews with Fire Chiefs, this demand upon their time created varying levels of frustration as they perceived a degree of disconnectedness in their interactions with Town Council members and the presentations of budget. In interviews with Town Council members, it was also expressed that administrative processes were disconnected and, in many instances, duplicated. As the demands upon the fire departments and their members continue to increase, it can be reasonably expected that these administrative demands upon each of the fire department's leadership teams will increase as well. Many communities in similar situations have addressed this issue through the creation of an administrative structure that removes the administrative demands from the Fire Chiefs, which frees them up to effectively lead their respective fire departments operationally. It is recommended the Town and fire departments work collaboratively to establish an effective administrative position to serve the needs of all parties. This can be accomplished through a variety of structures that fit the needs of the fire departments and the Town. Within the State of Connecticut, some communities using multiple volunteer fire departments to serve the community have established a "chief-of-chiefs" concept in which the senior chief's position rotates on a set schedule. Under this arrangement, the senior chief is responsible for all administrative functions. Other communities have established the formal position of a Director of Fire Services to provide all administrative functions but does not have emergency operational command authority. The key is to establish an administrative structure that fits the needs of the Town.

Service Area and Infrastructure

The size and composition of a fire department's service area affects the type and number of personnel, fire stations, and vehicles needed to provide services efficiently. Sometimes complex decisions need to be made regarding deployment strategies employed to properly position resources based on land area, geography, risk, and similar factors. Following is a summary of the Monroe service area (Figure 22) and service infrastructure resources.

Figure 22: Monroe Service Area



Collectively, the three fire departments serving the town of Monroe protect a 26-square mile jurisdiction. Each fire department operates two fire stations for a total of six fire stations serving areas that can be defined as urban, suburban, and rural as classified by NFPA 1720. Decisions on deployment define the response capability of the fire department. These decisions need to weigh multiple considerations including risk exposure, response times, access challenges, deployment, community expectations, personnel safety, and fire department capacity. Those decisions need to be balanced with the financial considerations of each fire department as well as the Town of Monroe. These decisions are strategic and are in the purview of the Board of Directors for each fire department and their respective Fire Chiefs, as well as the Town of Monroe. Ultimately, these individuals are responsible to the public to provide the level of service the citizens' desire and for which they are willing to pay.

The reader should consider the extremes to understand the range of options for deployment. On the one extreme would be one fire station to cover the entire jurisdiction. This station would need to house enough apparatus and personnel to support all calls simultaneously within the municipality. Obviously to reach an incident on the outer edges of the jurisdiction would require the time to travel from the one station. On the other extreme is one station serving a one (1) square mile area. The time to arrive on the scene would be very short, but the apparatus and personnel would need to be replicated in each station to be able to provide the service, but at a significantly higher cost. The Town's responsibility as representatives of the citizens is to determine how quickly an effective crew should arrive to handle the emergency. This process must provide an analysis of the risk tolerance of the community, types of risks, accessibility obstacles, and financial capability. There are standards and industry accepted norms that can help with the decision but ultimately it is the Town's decision. This report will describe factors that should be considered to define the desired response performance.

The area served by Monroe is in gradual transition as the economy improves and some businesses have begun to relocate to the area. The fire departments provide traditional fire-based services to the community and respond in support of the Town's EMS when requested. The Town of Monroe has been able to maintain an ISO class 5/9 rating, however, and changes in the response area make-up may have an impact on this and should be considered in future planning efforts.

Each of the fire departments own a single station within their respective response area. Additionally, the Town has constructed a second station for each of the departments within their designated areas of responsibility. As with most fire departments across the United States, the locations of each fire station have resulted from decisions made years in advance of this study. Most communities place fire stations based upon the availability of land and space. Historically, fire stations have not been placed utilizing any degree of analysis of response time, call volume, traffic patterns, or risk. As a result, a variety of response barriers exist that negatively impact the efficient delivery of service to the community. In later sections of this report, ESCI will highlight these types of challenges faced by the fire departments serving the Town of Monroe and its emergency response personnel.

The location and potential relocation of fire stations will be an ongoing challenge for Monroe fire departments. With the factors previously discussed in mind, a detailed assessment of current service delivery and effectiveness is provided in the Service Delivery and Performance section of this report.

Emergency Response Type and Frequency

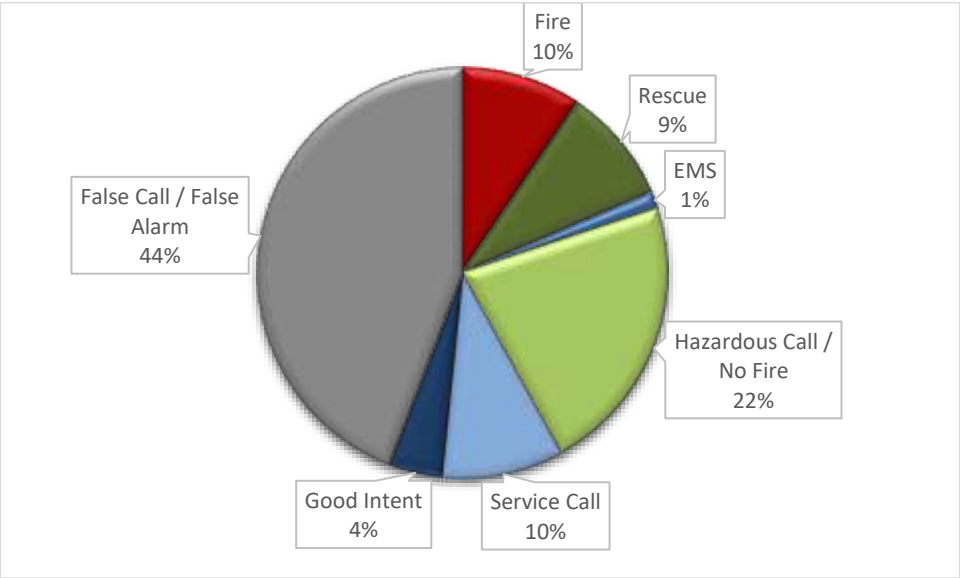
Collectively the three departments responded to 596 calls for service (CFS) from the Monroe community in the 2017 reporting year. The figures included in this section will provide the reader a better perspective of the activity levels of each department, individually and collectively. Each of the departments' incident response data for 2017 is listed in the following figure.

Figure 23: Calls for Service by Incident Type, 2017

	ALARMS		
Call Type	**Monroe**	**Stepney**	**Stevenson**
Fires (2017)	30	21	5
Property value exposed to fire	$1,620,000	N/A	$1,366,242
Property value lost to fire	$102,550	N/A	$145,000
Rupture or explosion	2	0	0
EMS	6	1	1
Rescue	35	4	15
Hazardous condition	51	75	5
Service call	35	22	0
Good intent call	16	5	4
False call	150	89	23
Severe weather	1	0	0
Other	0	0	0
Total (In-District)	**326**	**217**	**53**
Out-of-District	**126**	**200**	**249**
Total Activity	**452**	**417**	**302**

Rescue and EMS incidents accounted for 10 percent of the activity for the three fire departments combined emergency response activity for 2017 (Figure 24) with EMS only 1 percent. Many departments across the United States are experiencing the impact of emergency medical calls to be closer to 80 percent. This difference is directly attributed to the fact that neither fire department provides emergency medical response unless requested by the Town's ambulance service provider.

Figure 24: Emergency Calls by Percentage, 2017



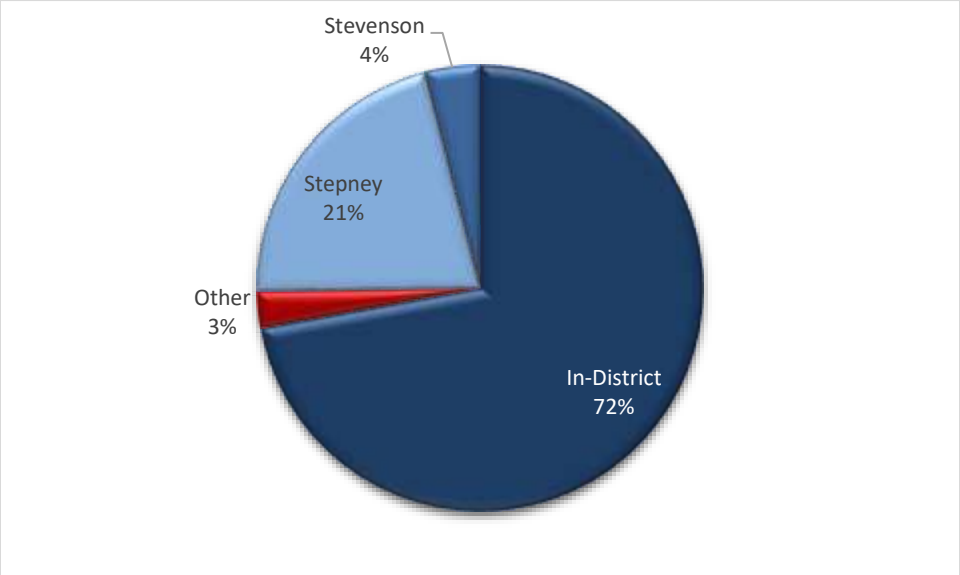
Of specific interest in the combined activity of the three departments is the fact that "false calls" accounted for 44 percent of the activity level. Statistically, this number is quite high and deserves further analysis on the part of fire department leadership and the Town of Monroe's Fire Marshal. This high amount may be the result of a data entry process issue due to staff members inaccurately recording the incident as a "false call." It is also possible that something could actually be causing the high number of "false call" responses, but the reality is that leadership needs to understand the causal effect and establish an intervention effort intended to reduce these instances of "false calls" wherever possible.

It is important to note that the three fire departments have an excessively high number of mutual aid calls "given" and mutual aid calls "received." Anecdotally, this can be explained as mutual aid given/received when responding in support of each other. However, in the current incident reporting mechanism, the departments do not differentiate between mutual-aid in support of each other within the Town of Monroe compared to mutual aid provided to fire departments surrounding Monroe. It is recommended the fire departments establish a standard by which they record response to support each other in comparison to responses given to, or received by, surrounding agencies.

Figure 25: Incidents by Type (Monroe)

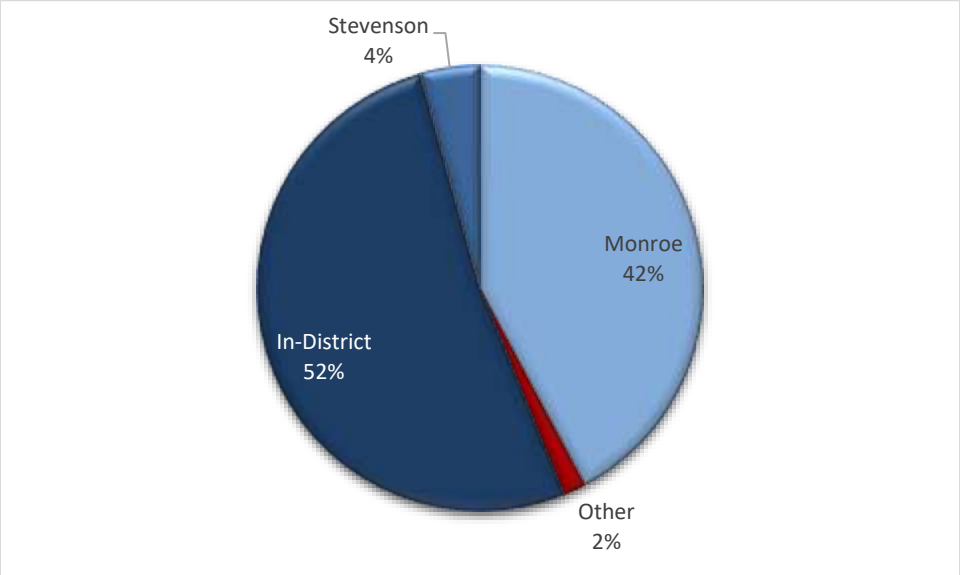
Incident Type	Count
Fires	56
Rupture/Explosion	2
EMS	8
Rescue	54
Hazardous condition (no fire)	131
Service call	57
Good intent call	25
False call	262
Severe Weather	1
Total	**596**

Figure 26: Monroe Calls for Service Analysis



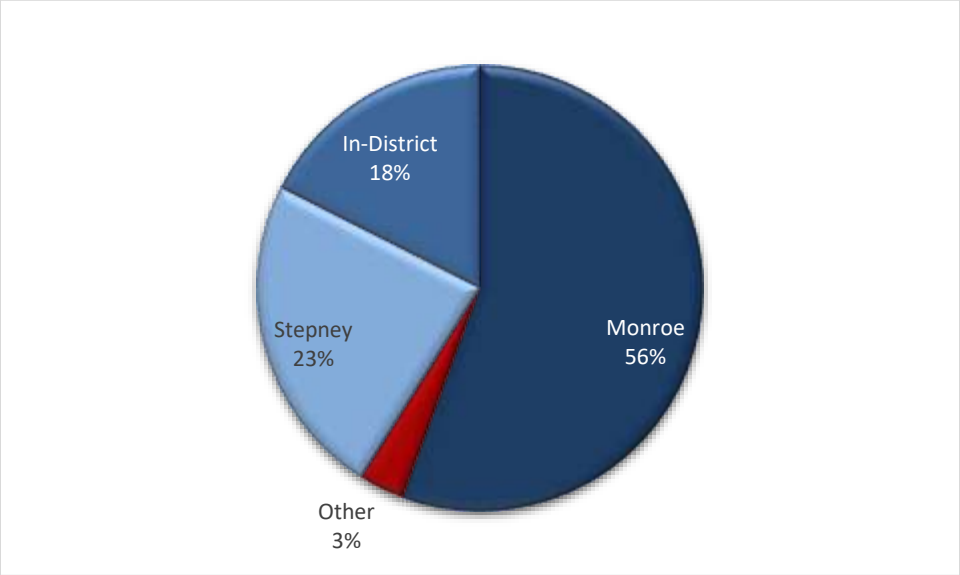
In total, Monroe was dispatched to 452 requests for service. These requests included emergency and non-emergency calls "in-district" and "out-of-district." Out-of-district calls included calls to Stepney, Stevenson, and other surrounding agencies. Of the 452 requests for service, 326 incidents were in-district and the remaining 126 requests were outside of Monroe's defined area of responsibility. The previous figure provides a graphical representation of the request for service by jurisdiction. A further analysis of responses out-of-district responses reveals that Monroe was cancelled enroute 39 of the 96 times Stepney requested service. Monroe was also cancelled enroute 5 of the 18 times Stevenson requested assistance.

Figure 27: Stepney Calls for Service Analysis



In total, Stepney was dispatched to 417 requests for service. These requests included emergency and non-emergency calls "in-district" and "out-of-district." Out-of-district calls included calls to Monroe, Stevenson, and other surrounding agencies. Of the 417 requests for service, 217 incidents were in-district and the remaining 200 requests were outside of Stepney's defined area of responsibility. Figure 27 provides a graphical representation of the request for service by jurisdiction. A further analysis of responses out-of-district responses reveals that Stepney was not cancelled enroute at any time.

Figure 28: Stevenson Calls for Service Analysis



In total, Stevenson was dispatched to 302 requests for service. These requests included emergency and non-emergency calls "in-district" and "out-of-district". Out-of-district calls included calls to Monroe, Stepney, and other surrounding agencies. Of the 302 requests for service, 53 incidents were in-district and the remaining 249 requests were outside of Stevenson's defined area of responsibility. Figure 28 above provides a graphical representation of the request for service by jurisdiction. A further analysis of responses out-of-district responses reveals that Stevenson was cancelled enroute 96 of the 168 times Monroe requested service. Stevenson was also cancelled enroute 66 of the 71 times Stepney requested their assistance.

It is important to note the three previous figures represent the call volume activity of each fire department in isolation and utilizing three separate records management systems to record incident data. If the three fire departments were in reality serving three separate municipalities these graphs would be truly reflective of each agency's demand for service by the communities served. However, when viewing the data behind the figures collectively, the reader would be lead to believe that a total of 1,171 call for service occurred within the Town of Monroe, when in fact only 596 calls for service occurred. The reality is these three fire departments serve a common customer inside of a single municipal boundary. Figure 29 provides an understanding of what the calls for service data would look like with the usage of a common records management system operating in a functionally unified manner. Operating in a functionally unified manner would allow each entity to maintain their current operational structures in the administration of their respective non-emergency business activities.

Data collection and analysis are the basis for any assessment of performance or service delivery and in order to ensure an accurate and credible performance review, the data should be consistently recorded and reported using

a common reporting platform. One of the biggest challenges to accurate and consistent reporting is lack of a clear procedure on how to complete important data tools such as a routine incident report. It is essential that reports are completed using consistent guidelines, and that incident reports are regularly reviewed for accuracy and completeness. The common mantra of "*garbage in, garbage out"* directly applies to report writing and data collection/analysis.

The accepted best practice for data reporting, according to the Center for Public Safety Excellence, is to report incident data using a 90 percent benchmark (i.e., the result occurs 90% of the time, or better) rather than reporting the *average time.* The 90 percent benchmark is especially valuable as it provides a far more accurate view of performance, and minimizes the impact of *outlier data.*

While reviewing the data and reporting from each of Monroe's fire departments, there exists some clear recommendations that will improve the quality of data collected, which in turn will lead to common overall performance indicators and an overall assessment of system performance throughout the entire town.

Each of the three fire departments in Monroe recently transitioned to a common records management system (RMS)—*Emergency Reporting.* The use of a common RMS system allows for a consistent analysis of each fire company's performance, and throughout the entire town. Fire departments across the country track and report countless different data points, but the best practice is to track data which accurately reflects the needs of the community and the service level of the local department.

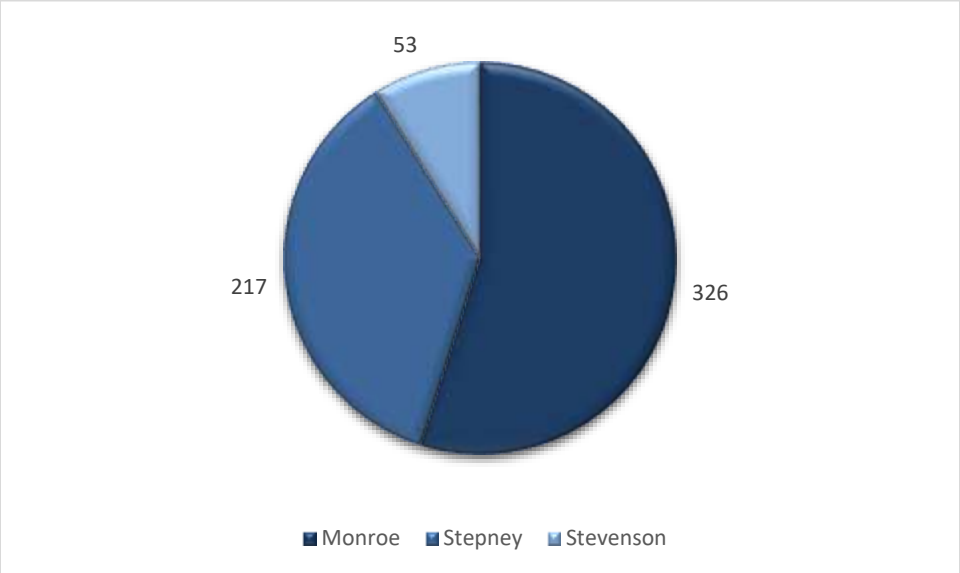
The following are examples which provide clarity to this recommendation, as well as some easy to implement data controls.

- **Assigning a single incident number**—the industry "best practice" is to assign a single incident number to an incident, especially if multiple fire companies are responding to the incident. The basic premise is that one incident number should be assigned to the event, not one for each responding fire department. Presently, an incident which generated a response from all three fire departments in Monroe is counted *three times* (as opposed to one single incident). The current practice makes it very difficult to analyze the actual number of incidents in the town.
- **Accurate reporting of services provided**—When any of the fire companies respond into a neighboring jurisdiction, the reporting should indicate that Department "A" provided mutual aid (or automatic aid) to Department "B." This will provide a much more accurate depiction of services given and received.
- **Revise reporting categories**—institute a reporting procedure utilizing NFIRS reporting categories, and potentially sub-categories. For NFIRS reporting detail consult National Fire Incident Reporting System, complete reference guide 5.0 (2017). Available on line, or from the United States Fire Administration site (www.usfa.fema.gov)
  - 100 series: fires
    - 111: structure fires
    - 140 series: vegetation fires
  - 300 series: EMS
  - 700 series: false calls

- System malfunction
- Malicious activation

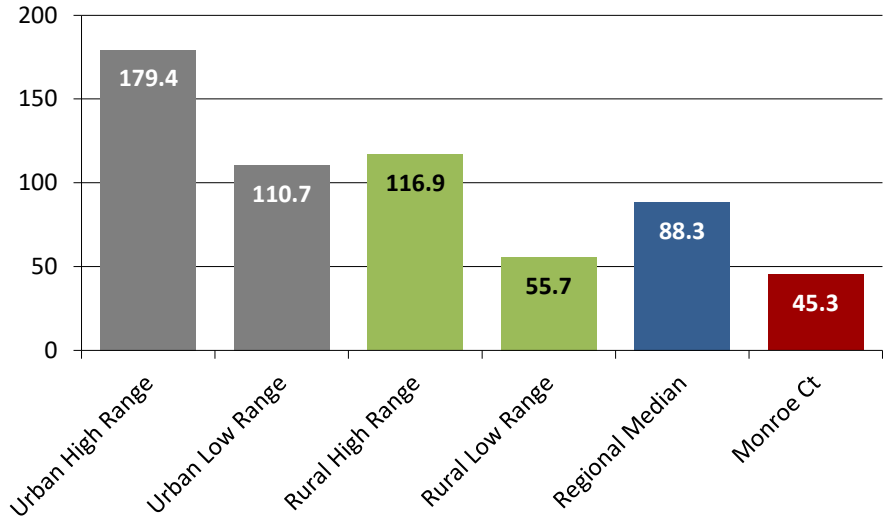
- **Institute a clear set of reporting guidelines**—prepare individual incident reports using NFPA 901: Standard Classifications for Incident Reporting and Fire Protection Data as a guiding document.
- **Assign report completion duties**—designate a responsible party for completing incident report and delivering to appropriate collection "point" (i.e., typically, the ranking officer/person in charge has responsibility for completing an accurate report. Company level officer for single company incidents, or chief officer for more involved incidents):
  - Designate a person to review reports and ensure that they are properly filled out (quality assurance person).
- **Establish routine internal reporting and performance measures**—
  - Number and type of incidents
  - Time of day, day of week, and so forth
  - Average or (best practice) 90th percentile response time (consult CPSE or NFPA 1720 guidelines)
  - Average number of responders
  - Number of public outreach events, and number of attendees
  - Number of training hours
  - Number of volunteer hours—an important and influential number when discussing the value of the fire department.
- **Consider publishing an annual report**—by respective department or to reflect the collective efforts of all three fire departments serving the Town.

Figure 29: Functionally Unified Calls for Service Model



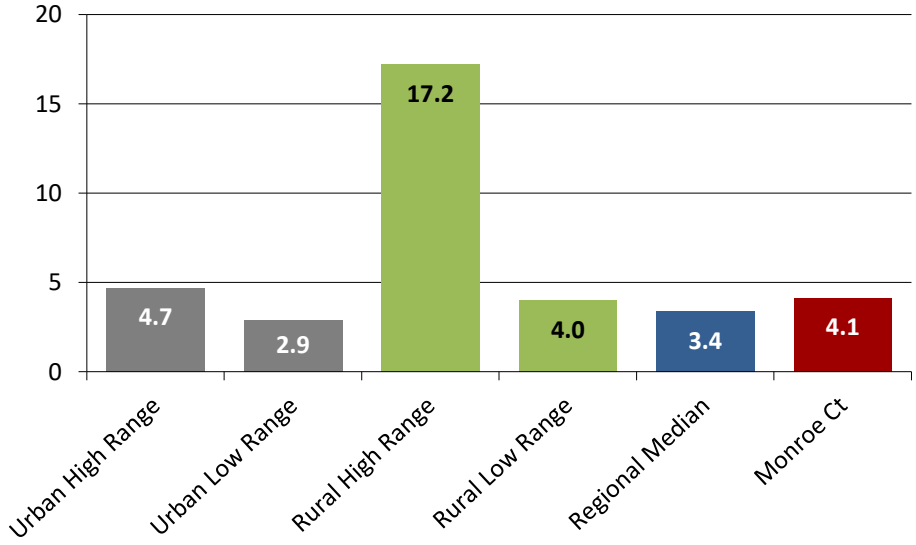
In the following figure, the collective total number of incidents per 1,000 in population served is compared to other fire departments around the country.

Figure 30: Annual Number of Incidents per 1,000 Population Comparison



This figure reflects the three Monroe fire departments incident data compared to NFPA's data collection from fire departments throughout the nation and is significantly lower than both the urban and rural categories. The department is also lower than regional departments at incidents per 1,000 at only 45.3 incidents per population. This regional number represents departments in this region of the country and may differ due the fact that the Monroe fire departments do not provide EMS transport services as reported in some comparably-sized jurisdictions. This figure does not lend itself to decision-making relative to specific types of services to provide the community, but is intended to help understand the emergency response workload of the department and its personnel. Contrasting the number of fire incidents to national and regional comparably-sized departments is presented in Figure 31.

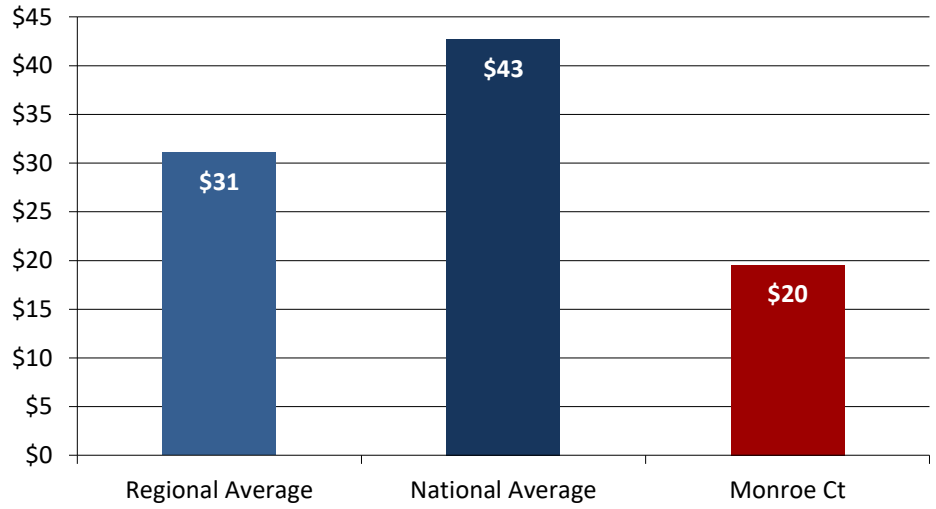
Figure 31: Annual Number of Fires per 1,000 Population Comparison



When the same data is used to compare the instances of fires per 1,000 population a different image is realized. The Monroe fire departments' incidents of 4.3 fires per 1,000 in population is comparable to other agencies within the region. It is higher than the "low" range of fires for other departments protecting urban populations and almost equal to the urban high range. The instances of fires per 1,000 population is slightly higher than the regional median and "low" range of departments protecting rural population.

Figure 32 demonstrates fire loss per capita for the 2016 operating year compared with other national and region departments. While the per capita fire loss looks to be below both the regional and national comparators, it is important to note that there are distinct difference between the three fire departments in recording fire loss data.

Figure 32: Fire Loss per Capita Comparison



The fire departments serving the Town of Monroe are experiencing a fire loss rate lower than both regional and national medians for the 2016 reporting year. While the loss is lower than regional and national comparison, it is not necessarily a direct correlation to the departments' capabilities or quality of service, as many different factors impact fire loss. High among fire loss factors is the issue of early detection and fire suppression systems. Buildings that have properly working alarm systems allow for fires to be detected early and emergency response personnel to be notified. This allows fires to be extinguished in their earliest stages. In addition, buildings with properly working sprinkler systems tend to keep fires small until firefighters arrive and finish extinguishing the fire. Understanding this fire loss number can assist the department in its fire prevention and inspection programs.

Key Recommendations:

- The Town of Monroe and the three fire departments should establish a written contract between all parties to clarify expectations and responsibilities.
- Standardize the entry of incident call typing between the three fire departments.
- Conduct a comprehensive analysis of "false calls" classifications.
- Standardize the definition of mutual aid/auto aid when responding in support of each other inside the Town.
- Standardize process for ensuring all fire loss data is recorded properly.
- Establish a single "administrative" structure to facilitate business operations between the Town and the three fire departments.

Financial Management and Analysis

Considerable financial information and background data was provided to ESCI by staff of the Town of Monroe which was reviewed in detail along with the Comprehensive Annual Financial Reports (CAFRs) for the fiscal years ending June 30, 2017 and 2016. Additionally, the fiscal year ending June 30, 2015 independent audit was reviewed. The actual financial information for each of the three volunteer fire departments was not included in the information to be reviewed. The data has enabled ESCI to develop the following discussion providing key stakeholders with, based on the information submitted by the individual fire departments during the annual budget process, a minimal historical, current, and projected outlook of the funding for the three volunteer fire departments.

Budgets and Finance

A critical component of the success and operation of any business, private or public, is a consistent and reliable funding stream. In the instance of public agencies, this funding is usually provided by the assessment and collection of various forms of taxation such as ad valorem (real estate) taxes, sales taxes, special assessments, and billings for services. Other sources may include fundraisers, interest on fund balances, grants, donations, and other creative methods. Recognizing the limits of public funding, public safety agencies, including fire departments, are limited in the level of service they may provide to their communities by the amount of and the types and levels of revenues that the authority having jurisdiction is willing, or limited by the legislative process, to assess. Public agencies also may charge fees for services under contractual arrangements to other agencies or areas outside of their political boundaries. Without adequate funding that is also sustainable, an organization is destined for failure. In the current economy, most communities are searching for ways in which to reduce expenditures while maintaining levels of service. Simultaneously, emergency services organizations are finding it increasingly difficult to deliver the services that the community desires and are often asking for more funding to adequately supply the expected levels of services.

The following discussion is a summary of Town of Monroe revenues, operating expenses, capital expenditures, and debt. The representations presented here illustrate the total Town of Monroe budget and the allocation between the various departments including the appropriations to the three volunteer fire departments providing service to the Town. The Town is primarily funded through an assessment of property taxes. Each of the volunteer fire departments submits a budget to the Town and the submittal is appropriately vetted through the Town's budget process.

The Town maintains three types of funds; Governmental Funds which are used for general department operating purposes; Proprietary Funds are utilized to account for charges to its customers, whether outside customers or other government units, for services; and Fiduciary Funds that are used to report activities for which the Town operates as a trustee. The General Fund is the main fund under the governmental fund group and through which general government, public safety, culture and recreation, health and welfare, and debt service transactions are recorded. Activity reported in the governmental fund group utilizes the modified accrual method of accounting which measures cash and all other financial assets that can readily be converted to cash. A Capital Reserve Fund exists in the governmental fund type and it is through which long lived assets, such as vehicles, are acquired and athletic fields are constructed. Governmental Fund accounting statements provide a short-term view of the Town's general government operations and the basic services it provides.

The Town's only proprietary funds are internal service funds and are used to account for the Town's self-insured health program for the Board of Education and the Heart and Hypertension Fund accounts for claims for those conditions experienced by the Town's police officers. Fiduciary funds such as the Town's defined benefit pension plan, are excluded from the main financial reports of the Town as they cannot be used to finance the operations of the Town.

The Town periodically obtains voter approval to issue debt for capital assets. On occasion, the authorization for the issuance is approved but the issuance of the debt is delayed. At June 30, 2017, the Town has a total of $12,029,466 of authorized but unissued debt. Included in this balance is authorized debt of $3,880,000 for fire apparatus.

Revenues

Revenues may be classified as recurring or non-recurring in nature. Recurring revenues are those which are repetitive and can be readily quantified such as property taxes and assessments, sales taxes or recurring contract revenues. Non-recurring revenues, such as grants, issuance of debt, insurance proceeds, or sale of assets are revenues streams that should not be relied on to fund annual operating expenditures.

Property tax revenue is based on two components, the valuation of the property and the tax rate assessed against that value. In certain instances, the legislative body of the state may impose restrictions on the growth of the value or the growth in tax revenues, limiting the revenue growth of a municipality. The valuation of properties in the Town has changed very little during the review period. During the budget process, the approved expenditures of the Town are totaled, other sources of revenue evaluated and, based on the valuations of property, a property tax rate is set to create the revenue necessary to fund the balance of the budgeted expenditures. As indicated in the following schedule, the millage rate has increased during the previous four years to fund the increased costs of providing government services to the Town. The following figure indicates the total assessed value of taxable property within the boundaries of the Town and the millage rate for the previous four years.

Figure 33: Value of Taxable Property and Millage Rate for FYE June 30, 2015–2018

	Year Ending June 30			
	2015	2016	2017	2018 Budget
Net taxable Grand list before adjustments	$ 2,311,419,040	$ 2,146,111,708	$ 2,153,311,392	$ 2,158,777,057
Tax Rate per $1,000	$ 31.01	$ 34.35	$ 35.00	$ 35.76

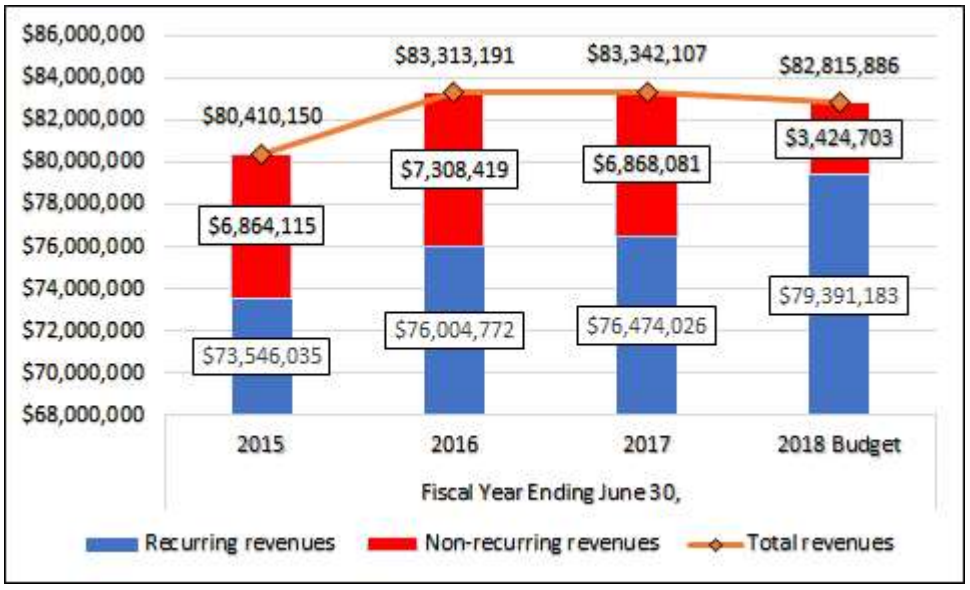
General Fund recurring revenues include the several components of property taxes, licenses and permits, and charges for services. Property tax revenues have increased approximately 3 percent per year since FY 2015. This increase is due to the increase in the assessed tax rate as the increase in property valuations have been insignificant during the review period. Licenses and permits showed a significant increase between FY 2015 and FY 2016 but have been relatively static the past three years. This has been a result of the significant increases in planning and zoning fees and building permits. A revenue sharing grant was received resulting in the significant increase in revenues in the Intergovernmental–Town classification between 2016 and 2017. This grant continues in 2018. The following figure provides a historic picture of the revenues of the Town of Monroe for the fiscal years ending June 30, 2015 through 2018.

Figure 34: Town of Monroe General Fund Revenues for the FYE June 30, through February 15, 2018

	Fiscal Year Ending June 30			
	2015	2016	2017	2018 Budget
Recurring revenues:				
Property tax revenues	$ 71,805,335	$ 73,912,163	$ 74,120,218	$ 76,449,378
Licenses and permits	619,293	803,155	828,314	823,130
Intergovernmental - Town	734,025	706,095	1,074,983	1,017,675
Charges for services - Town	241,739	275,540	250,306	874,000
Interest and dividends	170,992	307,819	200,205	227,000
Total recurring revenues	**73,571,384**	**76,004,772**	**76,474,026**	**79,391,183**
Non-recurring revenues:				
Other revenues	191,884	292,627	148,026	75,000
Intergovernmental BOE	6,613,738	6,592,343	6,398,824	2,140,703
Charges for services BOE	58,811	14,312	23,443	9,000
Financing Sources	-	-	-	-
Appropriation - Assigned fund balance	-	409,137	297,788	-
Appropriation - unassigned fund balance	-	-	-	1,200,000
Total non-recurring revenues	**6,864,433**	**7,308,419**	**6,868,081**	**3,424,703**
Total receipts	**$ 80,435,817**	**$ 83,313,191**	**$ 83,342,107**	**$ 82,815,886**

The following figure provides a graphic presentation of the comparison of recurring and non-recurring revenue from the Town's General Fund for the FYE ending June 30, 2015–2018.

Figure 35: Comparison of General Fund Recurring Versus Non-Recurring Revenue, FY 2015–2018



The Town of Monroe provides funding to each of the three volunteer fire companies that provide fire service to the community. Each department prepares and submits a budget during the annual development of the Town's budget. The submittal is reviewed by the Town's First Selectmen who makes recommendations for modification and forwards the document to the Monroe Town Council for their review and suggested modifications.

The proposal is then forwarded to the Town's Board of Finance for presentation at a public hearing and to listen to members of the Town raise their concerns or support for the budget. The Board of Finance will prepare its final proposed budget and deliver it to the First Selectman.

The Town operates on a fiscal year beginning July 1 and ending the following June 30. The Town utilizes a modified accrual basis of accounting. Actual financial statements from the three fire volunteer departments were not obtained making an actual analysis of the cost of fire protection limited to the information contained in the Town's budget process.

The State's financial condition has been deteriorating, and as a result its bond rating has decreased to AA-, and its outlook for the future has been changed from stable to negative. This reflects increasing constraints on Connecticut achieving long-term structural balance according to the rating agency Standard and Poor's Global Ratings. This has caused approximately one-third of Connecticut cities and towns' bond ratings to drop or their outlook for the future to be changed from stable to negative. In the current year, the Town of Monroe received $9,023,758 in payments from the State's budget plus the State paid $10,870,791 on behalf of the Town for teachers' retirement benefits. These payments may be greatly or totally reduced in subsequent years. In addition, the Town may be required to pay additional costs charged by the State.

The Town of Monroe provides funding for the three volunteer fire departments that provide service to Town. The Town does not have a fire department as an operating department of the city, like the police department, and has no direct fire department employees on its payroll or under its benefit and/or retirement systems. The Town of Monroe has historically provided funding to these three entities for fire department operations and capital assets, including fire trucks and command vehicles. During the annual budget process, each department prepares and submits a budget based on the needs of the respective organization. This submittal follows the same process as other departments of the Town and each of the fire departments will undergo the same scrutiny as the other Town departments.

Revenues are classified as recurring or non-recurring dependent on the expectation of the continuing receipt and whether the amount can be readily ascertained. The operating expense reimbursement provided from the Town to each of the three volunteer fire departments has historically been the primary funding amount. More recently, other more detailed line items have been identified utilities, vehicle expenses, building maintenance, and fuel. During the budget review process, the First Selectman, Town Council, and Board of Finance may adjust the recommended funding, but the budget document does not disclose the line item being adjusted. The goal of including the fire departments in the budget process is to match the costs to be funded by the Town with the actual expenditures to be paid by the fire department.

Monroe Volunteer Fire Department Budgets[4]

The following figure indicates the budgets and actual costs for prior years for the Monroe Volunteer Fire Departments that were submitted through the Town's budget process for the fiscal years ended June 30, 2015 through June 30, 2018.

Revenues provided by the Town to fund fire department operating expenses are the most significant category of recurring revenues. In recent years, the department has expanded the request for funding to include various utility costs, building maintenance, apparatus repairs, and fuel costs.

The expense portion of the budget includes funding for recurring expenses such as administration, apparatus repairs, building maintenance, equipment repairs and maintenance, fireground operations, personnel costs for stipends, training costs, public education, recruitment and retention costs, technology costs, and other costs. Several of the recurring cost categories remain relatively constant in the amount furnished to the Town for funding consideration. Other categories of recurring costs such as administrative, apparatus maintenance, technology, and training costs increase and decrease according to the needs of the department. Non-recurring costs during the review period have included capital expenditures, and payments to the Town for debt service on department assets acquired using the Town's debt capacity. Included in non-recurring expenditures are the increases and decreases authorized by the First Selectman, Town Council, and Board of Finance to arrive at the final budget number. The authorized adjustments do not identify the specific line description in the budget which complicates the analysis of the annual expenditures.

Financial information regarding the operation of the three Monroe volunteer fire departments beyond what has been provided by the Town was not obtained. The following figure shows the budgets of the volunteer fire departments for the fiscal years 2015 through 2018

[4] Source: Town of Monroe Budget documents.

Figure 36: Monroe Volunteer Fire Department Revenues and Expenditures, FY 2015–FY 2018

	Fiscal Year Ended June 30			
	2015	2016	2017	2018 Est
Recurring revenues:				
Operating expense reimbursement	$ 229,400	$ 206,420	$ 244,346	$ 224,740
Building maintenance		2,398	2,952	2,740
MFD Electric				14,470
MFD Heat				3,425
MFD other utilities		24,607	24,526	11,605
MFD fuel				6,685
MFD vehicle expense	-	4,927	4,236	-
Total recurring revenues	**229,400**	**238,352**	**276,060**	**263,665**
Expenditures:				
Recurring expenditures				
Administrative costs	30,660	25,700	27,200	25,520
Apparatus repairs & maintenance	23,700	20,000	20,000	29,125
Building maintenance	40,650	39,450	23,000	16,324
Chief's budget	2,900			
Communications	6,000			
Equipment repair & maintenance		11,000	12,000	12,399
Fire ground operations	941	35,700	39,700	42,504
Personnel costs		37,000	36,750	32,475
Public education & relations	1,675	1,500	2,200	2,016
Recruitment & retention	2,500	2,500	7,500	7,600
Technology costs	8,500	8,500	8,500	10,005
Training costs	10,750	10,500	10,500	16,980
Uniforms	5,491			
Hose	3,575			
Fire police	1,000			
Other expenses		(971)	56,700	40,425
Utilities-Shelton alarm	-	-	7,179	2,400
Total recurring expenditures	**138,342**	**190,879**	**251,229**	**237,773**
Non-recurring expenditures				
Firefighting gear	16,000			
SCBA	35,287			
Town of Monroe financing costs		34,471	34,471	34,472
Capital expenditures	63,800	13,000	20,000	19,800
Engineering	41,500			
First selectman reduction			(2,000)	(10,000)
Town council reduction				(20,130)
BOF increase (decrease)	-	-	(28,000)	1,750
Total non-recurring expenditures	**156,587**	**47,471**	**24,471**	**25,892**
Final budget amount	**294,929**	**238,350**	**275,700**	**263,665**
Expenditures (over) under funding	**$ (65,529)**	**$ 2**	**$ 360**	**$ -**

Stevenson Volunteer Fire Department Budgets[5]

Revenues provided by the Town to fund operating expenses of the Stevenson Volunteer Fire Department are the most significant category of recurring revenues. In recent years, the department has expanded the request for funding to include various utility costs, building maintenance, apparatus repairs, and fuel costs.

The expense portion of the budget includes funding for recurring expenses such as operating costs, administration, insurance, maintenance, communications, apparatus repairs, training costs, firefighting equipment, dive team expenses public education, and costs associated with the department's fire police program. The communications and education categories in recurring cost remain relatively constant in the budgeted amounts furnished to the Town for funding consideration. The remaining recurring costs increase and decrease according to the needs of the department in that budget period. Non-recurring costs during the review period have included capital expenditures and the increases and decreases authorized by the First Selectman, Town Council, and Board of Finance to arrive at the final budget number. The authorized adjustments do not identify the specific line description in the budget which complicates the analysis of the annual expenditures.

Financial information regarding the operation of the Stevenson Volunteer Fire Department beyond what has been provided by the Town was not obtained. The following figure shows the budgets of the Stevenson Volunteer Fire Department for the fiscal years 2015 through 2018.

[5] Source: Town of Monroe Budget documents

Figure 37: Stevenson Volunteer Fire Department Revenues and Expenditures, FY 2015–FY 2018

	FYE June 30			
	2015	2016	2017	2018 Budget
Funding from the Town				
Operating expense reimbursement	$ 185,000	$ 159,272	$ 169,207	$ 151,060
Building maintenance		7,111	6,080	930
STVFD Electric				14,600
STVFD Heat				9,600
STVFD other utilities		24,969	18,964	5,650
STVFD fuel				6,825
STVFD vehicle expense	-	5,648	4,344	-
Total Town funding (recurring revenues)	**185,000**	**197,000**	**198,595**	**188,665**
Expenditures:				
Administrative costs	22,000	22,000	22,000	16,750
Insurance	5,500	15,000	18,000	5,500
Operation	46,797	40,000	9,200	15,700
Maintenance	39,600	20,000	10,000	17,700
Communications	35,228	13,800	19,500	19,500
Apparatus Maintenance	27,500	44,000	35,500	39,000
Education & training	14,850	13,500	14,800	14,500
Firefighting equipment & supplies	61,848	35,000	32,195	52,000
Dive team equipment & maintenance	10,395	2,000	2,900	3,200
Fire police	1,100	500	500	800
Recurring expenditures	**264,818**	**205,800**	**164,595**	**184,650**
Other expenditures				
Other		8,695	50,500	44,655
First selectman reduction		(17,495)	(15,000)	(15,000)
Town council reduction				(25,640)
BOF increase decrease)	-	-	(1,500)	-
Non-recurring expenditures	**-**	**(8,800)**	**34,000**	**4,015**
Final budget amount	**264,818**	**197,000**	**198,595**	**188,665**
Net cash flow	**(79,818)**	**-**	**-**	**-**

Stepney Volunteer Fire Department Budgets

Revenues provided by the Town to fund operating expenses of the Stepney Volunteer Fire Department are the most significant category of recurring revenues. The department expanded its request for funding to include various utility costs, building maintenance, apparatus repairs, and fuel costs.

The expense portion of the budget includes funding for recurring expenses such as administrative costs, insurance, operations, equipment repairs and maintenance, apparatus repairs, education and training costs, building maintenance, and public education costs. Recurring expenditures for administrative costs, operating costs, insurance, and apparatus maintenance have remained consistent during the review period while the remaining recurring category expenditures have increased and decreased depending on the needs of the department each year. Non-recurring costs during the review period have included capital expenditures, technology costs, utilities, construction, financing costs paid to the Town, and the increases and decreases authorized by the First Selectman, Town Council, and Board of Finance to arrive at the final budget number. The authorized adjustments do not identify the specific line description in the budget which complicates the analysis of the annual expenditures.

Financial information regarding the operation of the Stepney Volunteer Fire Department beyond what has been provided by the Town was not obtained. The following figure shows the budgets of the Stepney Volunteer Fire Department for the fiscal years 2015 through 2018.

Figure 38: Stepney Volunteer Fire Department Revenues and Expenditures, FY 2015–FY 2018

	FYE June 30			
	2015	2016	2017	2018 Budget
Receipts:				
Operating expense reimbursement	$ 250,000	$ 203,601	$ 221,331	$ 208,925
Insurance		19,216		
Building maintenance		1,087	4,251	1,130
SFD Electric				15,400
SFD Heat				7,000
SFD other utilities		24,522	30,298	9,100
SFD fuel				6,300
SFD vehicle expense	-	10,574	5,020	-
Recurring revenues	**250,000**	**259,000**	**260,900**	**247,855**
Expenditures:				
Administrative costs	21,400	14,100	11,500	11,500
Insurance	19,500	19,500	20,000	20,000
Operation	65,000	12,000	12,000	10,000
Equipment repairs & maintenance		50,000	26,000	45,000
Apparatus Maintenance	77,900	88,000	83,000	80,000
Education & training	22,500	18,820	18,820	18,000
Building maintenance	12,000	13,500	41,400	32,480
Miscellaneous	5,000			
Public education & relations	-	3,680	3,680	5,000
Recurring expenditures	**223,300**	**219,600**	**216,400**	**221,980**
Non-recurring expenditures				
Capital/Special projects	75,000			
Firefighting equipment	42,184			
Communications	15,500			
Technology costs		21,900	26,500	15,000
Town of Monroe financing costs		11,000	11,000	
Utilities		58,700		
Other expenses	(105,984)		73,500	38,930
First selectman reduction		(52,200)	(50,000)	(10,000)
Town council reduction				(18,055)
BOF increase decrease)	-	-	(16,500)	-
Total non-recurring expenditures	**26,700**	**39,400**	**44,500**	**25,875**
Total expenditures	**250,000**	**259,000**	**260,900**	**247,855**
Net cash flow	**-**	**-**	**-**	**-**

Each department prepares and submits a separate budget request for funding to the Town for its consideration. Contained in each of these budgets are similar amounts for overhead categories such as insurance and administrative costs that appear to be duplicative giving rise to the opportunity for savings.

Key Recommendations:

- Evaluate opportunities to consolidate certain aspects of the three departments to reduce overhead type expenditures.

Management Components

Effective fire department management is a common challenge for fire service leaders. Today's fire departments must address management complexities that include an effective organizational structure, adequacy of response, maintenance of competencies, a qualified work force, and financial sustainability for the future.

To be effective, the management of a fire department needs to be based on several components. One of the most significant management tools is the creation of a strategic plan. This plan is a roadmap for the future. It helps policymakers decide where the department desires to be in the long-term relative to the expectations of community stakeholders. It is a strategic view that must be accepted and approved by the elected officials of Monroe. This is accomplished by this study. This gives the Town leaders information and options that can be used to decide the direction the fire departments should take for the future.

In the following report section, ESCI examines the current efforts of three fire departments serving the Town of Monroe to manage their respective organization's individuals, as well as collectively to serve the citizens and taxpayers of Monroe. The following sections will also identify measures and best practices recommended as the departments continues into the future.

Foundational Management Elements

The development of baseline management components in an organization enables each department to move forward in an organized and effective manner. In the absence of these foundational management elements, the department will tend to operate in a random and generally ineffective manner. This section reviews collective baseline management components of the three fire departments.

At the time of this report, each of the departments maintained different "purpose" statements within their respective by-laws. However, none of the organizations have developed official mission statements to support departmental planning. Additionally, none of the departments have identified organizational values to be used in guiding the behaviors and activities of the departmental memberships. The departments also have not established formal vision statements.

Management Documents and Processes

An organization should establish appropriate documentation, policies, procedures, and identification of internal and external issues that affect the agency. Processes must be established to address the flow of information and communication within each of the Monroe fire departments, as well as with their various constituents. These documents and processes also go beyond simple implementation, but must include regular review and revision as part of their normal operations.

The Monroe, Stepney, and Stevenson fire departments, as emergency services organizations, by necessity and mission must function in a paramilitary manner. Consistent service delivery is dependent on standardized rules, regulations, and policies that guide appropriate behavior and accountability. These guiding documents are vital for success in providing services at all levels and meeting the expectations of the citizens served by the Monroe fire departments. ESCI recommends the three fire departments work to standardize all management processes and documents to ensure consistency in the operations of the three fire departments.

Record Keeping and Documentation

In any organization, the documentation and reporting of all activities is of paramount concern. Successful organizations consistently demonstrate the ability to effectively collect data and use that same data in its decision-making processes. These same organizations also use this data in a proactive manner to inform their constituents and policy makers of their operations and outcomes. ESCI recommends that each fire department work to incorporate additional information into their respective reporting efforts and provide analysis of information within the report.

Each department maintains all service records for critical pieces of equipment. These include self-contained breathing apparatus, hose, ladders, and pump tests. Many of the more technical pieces of equipment are service by a third-party contractor. These records are maintained and available for review.

Internal Assessment of Critical Issues and Future Challenges

The leadership of each fire department has identified the issue of recruitment and retention of volunteers as the most critical issue facing the organizations. The departments have been impacted by a variety issues that have negatively impacted the ability of the department to recruit and retain quality volunteers. Among these included an inability of younger volunteers to remain in the town after graduating high school due to the cost of living in Monroe. Secondly, the ability of each department to muster an effective daytime response has continually proven to be an ever-increasing challenge. To address this concern the departments have developed a deployment model for daytime response that includes an “all-call” system in which all three departments are dispatched for responses between the hours of 6am to 6pm. Third among the critical issues identified by the three fire departments is the need to establish common emergency scene operational procedures.

Information Technology Systems

Collectively, the three fire departments have transitioned a significant portion of their operations to computer. Additionally, the departments have transitioned to a common records management systems in accomplishing organizational responsibilities. The department utilizes a third-party IT contractor to maintain its computer inventory and securely store digital records off-site. Establishing a common RMS system also reduces the need for each agency to maintain separate licensing and service agreements.

Security

Each of the fire department have implemented policies and procedures addressing the security of facilities and vehicles. Physical facilities are secured using an electronic “fob” entry system unique to each person. Additionally, interior office and secured areas require higher levels of security using the same “fob” system. Some of the fire departments have implemented the usage of security cameras for added facility security. The expectation of each organization is that offices and computers will be secured when not in use, and passwords are required for access. Each of the departments have the ability to secure all vehicles inside of assigned facilities in most cases, but when the vehicles are outside of the building keys are to be removed and vehicles locked.

Key Recommendations:

- Incorporate additional information into their respective reporting efforts and provide analysis of information within the report.
- Standardize all management processes and documents to ensure consistency in the operations of the three fire departments.
- Continue the transition to a single records management system to ensure consistent data management.
- Consider utilizing Town Fire Marshal to conduct quality assurance of all “fire” reports.

Planning for Fire and Emergency Services Delivery

Emergency services exist in a rapidly changing environment. Along with improved tools and technologies used to provide service, there is the increased regulation of activities, new risks to protect, and other challenges that can quickly catch the unwary off guard. Only through continuous internal and external environmental awareness and periodic course corrections can an organization stay on the leading edge.

In order to do a better job with available resources, the organization must focus on improving services while identifying programs or activities that may no longer serve its changing needs. Through planning, a fire department is able to establish a vision for the future, create a framework within which decisions are made, and chart its course to the future. The quality and accuracy of the planning function determines the success of the organization.

To be truly effective, an emergency services agency must consider planning on five distinct levels:

1. Tactical Planning
2. Operational Planning
3. Master Planning
4. Strategic Planning
5. Emergency Management Planning

Tactical planning is the development of strategies for potential emergency incidents. Operational planning is the organization of day-to-day activities—as primarily outlined by a department's standard operating guidelines and procedures—and the integration of the agency into other local, regional, or national response networks. Master planning is preparation for the long-term effectiveness of the agency as the operating environment changes over time. Strategic planning is a process of *identifying* an organization's mission, vision, and values *and prioritizing goals and objectives* for things that need to be accomplished in the near future. Finally, emergency management planning is the process of identifying potential critical risks and threats facing a community with the intent to mitigate their impacts and positively affect recovery.

At the time of this report the three fire departments serving Monroe performed some fundamental, short-term planning in the form of the annual budget development process, which is used to define the activities and priorities identified for the upcoming year. Additionally, each of the departments perform varying forms of operational planning.

Without effective planning, it is impossible for an organization to know when it is reaching milestones or providing exceptional services to its constituency. Figure 39 details the current planning efforts within each agency.

Figure 39: Planning for Fire and Emergency Services

SURVEY COMPONENT	MONROE	STEPNEY	STEVENSON
ORGANIZING FOR THE PLANNING PROCESS			
Adopted planning process	No structured process	No structured process	No structured process
LONG-RANGE PLANNING			
Master planning completed	No	No	No
Strategic plan in place	No	No	No
Capital improvement planning	Not formally adopted	Not formally adopted	Not formally adopted
Financial planning	Annual budget process	Annual budget process	Annual budget process
OPERATIONAL PLANNING			
Response planning (Run cards, fire management zones)	Run cards/No demand zones	Run cards/No demand zones	Run cards/No demand zones
Regional incident command	NIMS/ICS	NIMS/ICS	NIMS/ICS
Mutual aid planning	Mutual aid established	Mutual aid established	Mutual aid established
TACTICAL PLANNING			
Pre-fire planning	Not formalized	Not formalized	Not formalized
Specific hazard plans	No	No	No
Hazardous materials planning	No	No	No
CURRENT PLANNING PROCESS			
Planning group established	No	No	No
Mission statement developed	Bylaws	Bylaws	Bylaws
Current and future environmental analysis	No	No	No
Strategies formulated (goals)	No	No	No
Benchmarks (performance objectives)	No	No	No
i) monitored	N/A	N/A	N/A
ii) used in performance evaluations	N/A	N/A	N/A
Schedule for periodic evaluation and revision	N/A	N/A	N/A
INTEREST GROUP ASSISTANCE IN PLANNING PROCESS			
Customer survey	No	No	No
Citizen involvement	No	No	No
Business community involvement	No	No	No
Elected official involvement	No	No	No
Staff participation	No	No	No

Planning efforts in the three fire departments are limited. Although there is not a formally defined and adopted planning process in place, the departments have experienced obvious success in addressing the needs of the department to their respective conditions.

Tactical Planning

A firefighter's typical work area is usually very foreign to them. Normally, a firefighter's first visit to a building is when the building is involved in fire or other emergency. This is also the point in time where the internal environment is at its worst. Contrary to Hollywood's portrayal of the inside of a building on fire, visibility is at or near zero due to smoke. A lack of familiarity with a building can easily lead a firefighter to become disoriented or injured by an unfamiliar internal layout, or by equipment or other hazards that might be encountered.

It is critically important that firefighters and command staff have comprehensive, accurate information readily at hand to identify hazards, direct tactical operations, and use built-in fire resistive features. This can only be accomplished by building familiarization tours, developing pre-fire plans, and conducting tactical exercises, either on-site or by tabletop simulation.

Collectively, the three fire departments have not established a formal process to create and maintain pre-incident plans. It is recommended the three fire departments work to establish and implement a formal pre-fire plan process that is common among the agencies. Pre-incident plans should be easy to use, quick reference tools, for company officers and command staff. At a minimum, a pre-incident plan should include information such as:

- Building construction
- Occupant characteristics
- Incorporated fire protection systems
- Capabilities of public or industrial responding personnel
- Water supply
- Exposure factors
- Facility layouts

National Fire Protection Association Standard 1620: Standard for Pre-Incident Planning provides excellent information on the development and use of pre-incident plans and should be used as a reference.

Operational Planning

Operational planning includes the establishment of staffing policies, standardized response plans or protocols, regional incident command planning, mutual aid and automatic aid planning (locally and regionally), resource identification and planning, and disaster planning.

Within an agency, operational plans should be in place that assure that adequate volumes of the appropriate types of resources are deployed to an emergency. Doing so involves:

- Identification of potential risk types;
- Determination of resources needed to mitigate an incident affecting the particular risk type; and
- A methodology of assuring that adequate resources are dispatched to an incident via 911 center protocols.

Looking outside of the agency's own resources, operational plans need to address the timely implementation of mutual and automatic aid. To do so, the identified risk exposures and resource needs are incorporated into mutual aid agreements. Further, of significant importance, automatic activation of mutual aid deployment is seamlessly incorporated into the 911 center's Computer Aided Dispatch (CAD) systems.

The three fire departments serving Monroe have established mutual aid agreements with neighboring agencies. In addition, Automatic Mutual Aid (Auto Aid), which is the use of pre-programed dispatching of mutual aid resources, without the need for an incident commander to ask for them, is in place. The departments should also implement standardized response plans between the three fire departments.

Master Planning

The Town of Monroe and the three fire departments have wisely recognized the need for an established planning effort to be undertaken by this planning process. This study addresses the essential elements of a long-range master plan which are to answer three questions:

1. Where is the organization today?
2. Where will we need to be in the future? and,
3. How will we get there?

A master plan is particularly essential in a community that is undergoing change, and is important to effectively identifying needs and planning for an emergency response agency's future. The Master Plan is designed to provide a view of the organization in a 15-year time frame. Implementation of the Master Plan findings should be accomplished by way of an implemented strategic plan.

Strategic Planning

A strategic plan addresses a three to five-year planning window and establishes prioritized goals and objectives for the organization. This planning approach is particularly important when a master plan has been completed. The reason being that the master plan identifies multiple recommendations and future strategies, which are then evaluated and prioritized via the strategic plan.

Establishing a strategic plan accomplishes the following:

- Development of a mission statement giving careful attention to the services currently provided and which logically can be provided in the future.
- Development of statement of the agency's vision for moving forward.
- Establish the values of the employees of the agency.
- Identification of the strengths, weaknesses, opportunities, and challenges of the agency.
- Determination of the community's service priorities.
- Understanding of the community's expectations of the agency.
- Establishment of realistic goals and objectives for the future.
- Identifications of implementation tasks for each objective.
- Definition of service outcomes in the form of measurable performance objectives and targets.

It is recommended the three fire departments develop and implement an ongoing strategic planning process. Doing so will be especially important upon completion of a Master Plan, as it offers the best way to address, prioritize, and plan for the implementation of findings and recommendations contained in this report. It is imperative that the departments update the strategic plan on a regular basis to ensure it remains relevant and accurate.

Emergency Management Planning

Emergency management, once a low priority in the mind of the public, has risen to the conscious level of everyday life. Nonexistent before 2001, the DHS (Department of Homeland Security), terrorist threat warnings, the Transportation Safety Administration (TSA) screenings on public transportation, and security checks at sporting events and concerts are now common parts of urban life.

Well-prepared community governments prepare themselves, other institutions, businesses, and the public to survive disaster by mitigating hazards to eliminate or reduce risk. By developing and maintaining emergency action plans, and by exercising and updating the plans regularly, municipal governments help limit (or manage) the consequences of a disaster. The common term for governmental disaster preparedness is emergency management.

The Superfund Amendment and Reauthorization Act, found in Title III of the Federal Code (SARA Title III), defines requirements for the tracking of extremely hazardous substances (EHS) used in fixed facilities and establishes requirements for emergency response planning. While the tracking of these substances is not the responsibility of the three fire departments, the reality is that understanding their respective locations is critical to the safety of firefighters and the citizens of Monroe. The fire departments should actively work with the Town's Local Emergency Planning Committee (LEPC). The LEPC is charged with the responsibility to identify and collect information on the use of hazardous materials by private and public entities. Information collected includes the type of material, quantity, and location at each site. Additionally, the LEPC is charged with ensuring local response plans are adequate based on potential risk.

Key Recommendations:

- The fire departments should develop and implement an effective strategic planning process.
- Develop and implement standardized response plans among the three fire departments.
- Evaluate mutual aid and automatic aid agreements to ensure currency.
- Participate in regional disaster planning activities.
- Establish and implement a formal pre-fire plan process that is common among the agencies.

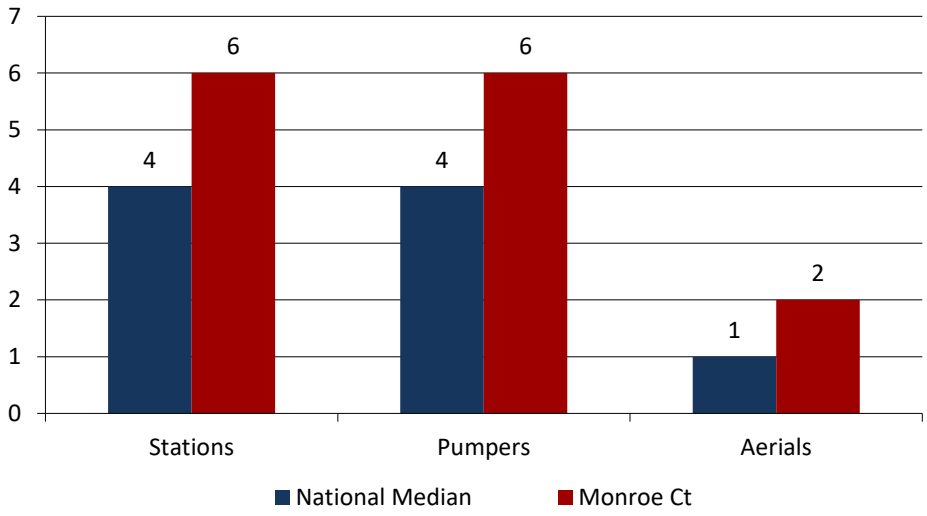
Capital Assets and Assessment of Current Infrastructure

Regardless of an emergency service agency's financing, if appropriate capital equipment is not available for the use by responders, it is impossible for a fire department to deliver services effectively. Two primary capital assets that are essential to the provision of emergency response are facilities and apparatus (response vehicles).

Collectively, the three fire departments maintain a balance of three basic resources that are needed to carry out its emergency mission: People, equipment, and facilities. Because firefighting is an extremely physical pursuit, the adequacy of personnel resources is a primary concern; but no matter how competent or numerous the firefighters are, the department will fail to execute its mission if it lacks sufficient fire apparatus distributed in an efficient manner.

In total, the Town is served by six fire stations and millions of dollars-worth of capital assets. These assets are necessary to provide service and must be maintained and replaced as needed. A comparison of major capital assets, including fire engines, aerial ladder trucks, and fire stations is provided in Figure 40.

Figure 40: Capital Assets per 1,000 Population



The major capital asset inventory of the three fire departments exceeds national medians, based on the data provided by NFPA.[6]

Facilities

Appropriately designed and maintained facilities are critical to a fire department's ability to provide services in a timely manner and with appropriate deployment of assets. ESCI observed and reviewed the fire stations operated by each of the agencies. The findings are summarized in the following pages and any areas of concern observed are identified.

[6] Benchmark data available through National Fire Protection Association (NFPA) is based on population and does not consider geographical size or population density of the particular area. Data for per capita comparisons does not delineate between volunteer or career agencies nor does it segregate out those EMS transport departments.

Figure 41: Monroe Station 1

18 Shelton Road
Monroe, CT

SURVEY COMPONENT	OBSERVATIONS
STRUCTURE	
Construction type	Brick/Stone
Date of construction	1946
Seismic protection/energy audits	N/A
Auxiliary power	Yes (natural gas generator)
Condition	Fair
Special considerations (ADA, mixed gender appropriate, storage, etc.)	None
Square footage	8,746
FACILITIES AVAILABLE	
Exercise/workout	No
Kitchen/dormitory	Kitchen/no dormitory
Lockers/showers	No
Training/meetings	Yes
Washer/dryer	Yes
SAFETY AND SECURITY	
Sprinkler system	No
Smoke detection	Yes
Security	Yes
Apparatus exhaust system	Yes
Units/staffing levels assigned	No

Figure 42: Monroe Station 2

54 Jockey Hollow Rd
Monroe, CT

SURVEY COMPONENT	OBSERVATIONS
STRUCTURE	
Construction type	Masonry/Frame
Date of construction	1982
Seismic protection/energy audits	N/A
Auxiliary power	Yes (natural gas generator)
Condition	Fair
Special considerations (ADA, mixed gender appropriate, storage, etc.)	No
Square footage	6,268
FACILITIES AVAILABLE	
Exercise/workout	No
Kitchen/dormitory	Dormitory
Lockers/showers	No
Training/meetings	No
Washer/dryer	Yes
SAFETY AND SECURITY	
Sprinkler system	Yes
Smoke detection	Yes
Security	Yes
Apparatus exhaust system	Yes
Units/staffing levels assigned	No

Figure 43: Stepney Station 1

88 MAIN STREET
MONROE, CT 06468

SURVEY COMPONENT	OBSERVATIONS
STRUCTURE	
Construction type	Wood frame brick facade
Date of construction	1925/2015
Seismic protection/energy audits	N/R
Auxiliary power	Yes, generator propane
Condition	Fair
Special considerations (ADA, mixed gender appropriate, storage, etc.)	ADA accessible
Square footage	12,200
FACILITIES AVAILABLE	
Exercise/workout	Yes
Kitchen/dormitory	Yes
Lockers/showers	Yes
Training/meetings	Yes
Washer/dryer	Yes
SAFETY AND SECURITY	
Sprinkler system	No
Smoke detection	Yes
Security	Yes, cameras
Apparatus exhaust system	No
Units/staffing levels assigned	No

Figure 44: Stepney Station 2

801 MAIN STREET
MONROE, CT 06468

SURVEY COMPONENT	OBSERVATIONS
STRUCTURE	
Construction type	Brick/Stone
Date of construction	1983
Seismic protection/energy audits	No
Auxiliary power	Yes
Condition	Fair
Special considerations (ADA, mixed gender appropriate, storage, etc.)	No
Square footage	7,623
FACILITIES AVAILABLE	
Exercise/workout	No
Kitchen/dormitory	Kitchen
Lockers/showers	Yes
Training/meetings	Yes
Washer/dryer	Yes
SAFETY AND SECURITY	
Sprinkler system	No
Smoke detection	Yes
Security	Yes
Apparatus exhaust system	Yes
Units/staffing levels assigned	No

Figure 45: Stevenson Station 1

1580 Monroe Turnpike
Monroe, CT

SURVEY COMPONENT	OBSERVATIONS
STRUCTURE	
Construction type	Woof Frame
Date of construction	1950
Seismic protection/energy audits	No
Auxiliary power	Yes (propane generator)
Condition	Poor
Special considerations (ADA, mixed gender appropriate, storage, etc.)	No
Square footage	6,708
FACILITIES AVAILABLE	
Exercise/workout	No
Kitchen/dormitory	Kitchen
Lockers/showers	No
Training/meetings	Yes
Washer/dryer	No
SAFETY AND SECURITY	
Sprinkler system	No
Smoke detection	Yes
Security	Yes
Apparatus exhaust system	No
Units/staffing levels assigned	No

Figure 46: Stevenson Station 2

1260 Monroe Turnpike
Monroe, CT

SURVEY COMPONENT	OBSERVATIONS
STRUCTURE	
Construction type	Ordinary type 3 truss roof
Date of construction	1983
Seismic protection/energy audits	N/A
Auxiliary power	Yes (diesel generator)
Condition	Good
Special considerations (ADA, mixed gender appropriate, storage, etc.)	ADA accessible
Square footage	13,675
FACILITIES AVAILABLE	
Exercise/workout	N/A
Kitchen/dormitory	Kitchen / no dormitory
Lockers/showers	Yes
Training/meetings	No
Washer/dryer	Yes
SAFETY AND SECURITY	
Sprinkler system	No
Smoke detection	Yes
Security	Yes, camera
Apparatus exhaust system	No
Units/staffing levels assigned	No

Apparatus

Collectively, the three fire departments maintain a sizeable fleet of response vehicles that are generally newer and clearly well maintained. The overall condition of the fleet was found to be very good to excellent generally. An inventory of fire apparatus, configuration, and condition is provided below.

Figure 47: Monroe Station 1 Apparatus Inventory

Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
73	Engine/Rescue	2009	Sutphen	Fair	1	1,750	750
75	Engine/Tanker	2009	Sutphen	Fair	1	1,750	1,500
74	Utility	2005	Ford	Fair	1	N/A	N/A
703	AC Cart	2004	Ford	Fair	1	N/A	N/A
702	DC Car	2013	Chevrolet	Good	1	N/A	N/A

Figure 48: Monroe Station 2 Apparatus Inventory

Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
77	Quint	2018	KME	New	1	1,500	300

Figure 49: Stepney Station 1 Apparatus Inventory

Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
E/T-101	Engine/Tanker	2018	KME	Excellent	1	1,750	2,000
S-103	Rescue/Engine	2018	KME	Excellent	1	1,750	600
Car 151 (command)	Chiefs Car	2008	Chevrolet Trailbazer	Fair	1	N/A	N/A

Figure 50: Stepney Station 2 Apparatus Inventory

Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Truck-100	Tower/ladder	2009	Sutphen	Excellent	1	1,750	280
E-101 (Reserve)	Engine	2000	Sutphen	Good	1	1,750	1,000
E-102	Engine	2009	Sutphen	Excellent	1	1,750	1,000
Utility 114	Utility	2011	Chevrolet 3500 pickup	Excellent	1	N/A	N/A

Figure 51: Stevenson Station 1 Apparatus Inventory

Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
315	Tanker	2009	Sutphen	Good		1,000	1,800
314	Utility	1985	GMC	Poor		—	—

Figure 52: Stevenson Station 2 Apparatus Inventory

Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
302	Engine	2009	Sutphen	Excellent		1,750	1,000
301	Engine	2017	KME	Excellent		1,750	750
320	Rescue	2003	Rescue 1	Fair		—	—
316	Tanker	2017	KME	Excellent		1,500	3,000
310	Brush	2007	Gowans/Knight	Good		125	300
ATV 1	ATV	2010	Polaris	Good		60	65

Each of the fire stations utilized by the three fire departments are in varying states of condition, but overall in a good state of operation. Relative to the number of fire stations, the Town of Monroe is served by two more fire stations, two more fire engines, and one more aerial than similar sized communities. Historically, the three fire departments have been making vehicle purchasing and deployment decisions with the needs of their own response jurisdictions in mind. This has created a situation in which the community has expended revenues purchasing and maintaining a significant amount of capital assets. It is recommended the three fire departments establish a collective capital inventory program that serves the needs of the citizens of Monroe effectively and efficiently. In a later section of this report ESCI will provide a variety of deployment models to facilitate the establishment this program.

Apparatus Replacement Planning

Long range capital replacement planning is always a challenge, and one that is of particular concern to the Town of Monroe and the three fire departments due to the large numbers of vehicles in operation. Fire apparatus are typically unique pieces of equipment, often very customized to operate efficiently in a narrowly defined mission. A pumper may be designed such that the compartments fit specific equipment and tools, with virtually every space on the truck designated in advance for functionality. This same vehicle, with its specialized design, cannot be expected to function in a completely different capacity, such as a hazardous materials unit or a rescue squad. For this reason, fire apparatus is very expensive and offers little flexibility in use and reassignment. As a result, communities across the country have sought to achieve the longest life span possible for these vehicles.

Unfortunately, no mechanical piece of equipment can be expected to last forever. As a vehicle ages, repairs tend to become more frequent, parts more difficult to obtain, and downtime for repair increases. Given the emergency mission that is so critical to the community, this factor of downtime is one of the most frequently identified reasons for apparatus replacement.

Because of the large expense of fire apparatus, most communities find the need to plan for the cost of replacement. To properly do so, agencies often turn to the long-accepted practice of establishing a life cycle for the apparatus that results in a replacement date being anticipated well in advance. Forward thinking organizations then set aside incremental funds during the life of the vehicle so replacement dollars are ready when needed.

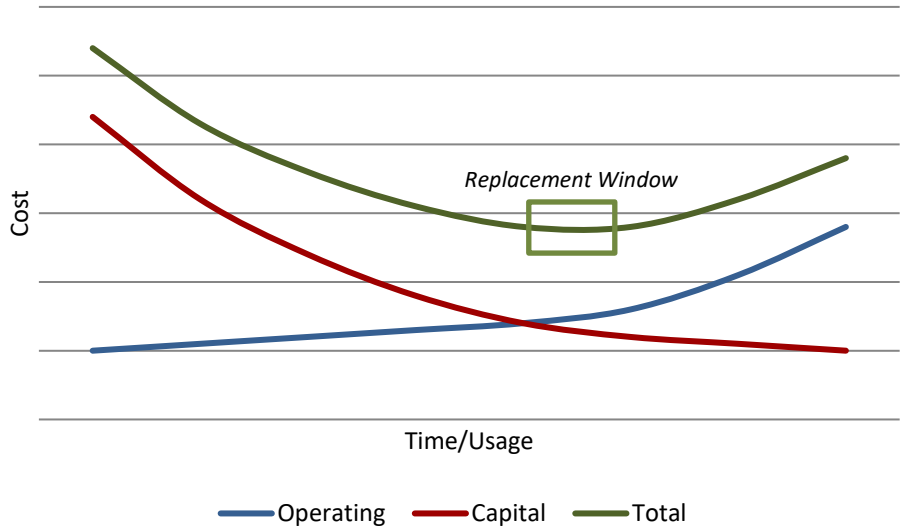
NFPA 1901: Standard for Automotive Fire Apparatus is a nationally recognized industry standard for the design, maintenance, and operation of fire suppression apparatus. The issue of replacement cycles for various types of apparatus has been discussed in the committee that develops the standard for many years. In developing its latest edition, the committee calls for a life cycle of 12 years in front-line service and five years in reserve status for engines, and 15 years in front-line service and five years in reserve status for ladder trucks.

Does this mean that a fire engine cannot be effective as a front-line pumper beyond 12 years? A visit to many departments in the United States might prove otherwise. Small, volunteer fire departments with only a hundred or so calls per year often get up to 25 years from a pumper, though the technology is admittedly not up-to-date. Likewise, busy downtown county fire stations in some urban communities move their engines out of front-line status in as little as eight years.

The reality is that it may be best to establish a life cycle that would be used in the development of replacement funding for various types of apparatus, while applying a different method for actually determining the replacement date in real life in an effort to achieve greater cost efficiency where possible.

A conceptual model that may be used when a replacement cycle is considered is the *Economic Theory of Vehicle Replacement*. The theory states that, *as a vehicle ages, the cost of capital diminishes and its operating cost increases*. The combination of these two costs produces a total cost curve. The model suggests the optimal time to replace any piece of apparatus is when the operating cost begins to exceed the capital costs. This optimal time may not be a fixed point but rather a range over time. The flat spot at the bottom of the total curve in the following figure represents the replacement window.

Figure 53: Economic Theory of Vehicle Replacement



Shortening the replacement cycle to this window allows for an apparatus to be replaced at optimal savings to the department. If the department does not routinely replace equipment in a timely manner, the overall reduction in replacement spending can result in a quick increase of maintenance and repair expenditures. Officials who assume that deferring replacement purchases is a good tactic for balancing the budget need to understand that two events may occur:

1. Costs are transferred from the capital budget to the operating budget; and/or
2. Such deferral may increase overall fleet costs.

Regardless of its net effect on current apparatus costs, the deferral of replacement purchases unquestionably increases future replacement spending needs.

The following figures demonstrate the recommended replacement schedule by industry standards discussed above. Collectively, the Town of Monroe does not currently have a standard that depicts when to replace their apparatus. These decisions should be based on the service demands of their community. The current replacement cost and life expectancy of that type of unit are shown in the first figure. From industry experts, the recommended annual inflation rate for fire apparatus is 3.2 percent. The following is an example of a possible apparatus replacement schedule, based upon the life expectancy of emergency response units, that could be used by the Town of Monroe.

Figure 54: Industry Standard Life Expectancies

Type	Vehicle	Life Expectancy	Replacement Cost
1	Squad/Utility	15	$50,000
2	Med Rescue Truck	15	$210,000
3	Heavy Rescue Truck	20	$500,000
4	Commercial Pumper	20	$350,000
5	Custom Pumper	20	$550,000
6	Tanker	20	$350,000
7	Ladder	25	$1,200,000
8	Brush	20	$140,000

Apparatus Replacement Funding

ESCI advises clients that, the day that a new piece of fire apparatus is delivered, the agency start to set funds aside for its replacement. Each piece of fire apparatus and the related support equipment has a predictable expected useful service life, based on a practical balance of use and maintenance cost. By analyzing age, projected service life and replacement costs with an inflation factor, a replacement schedule can be established that looks farther into the future than simply the annual budget process, enabling the agency to more effectively forecast future financial demands and plan for them.

Generally speaking, the three fire departments operate an equal mix of old and newer apparatus. Many of the apparatus have recently been replaced. A single “Town-wide” replacement plan is important. However fully funding a plan can be a difficult challenge. This level of financial forecasting is essential, but is not in place in many fire departments. As stated before, the dedication of funds for the future replacement of a fire engine is recommended to begin the day of delivery. Upon receipt of a new vehicle, a replacement date and inflation-factored replacement cost, is calculated.

Proposed Fleet Inventory

Figure 55: Proposed Fleet Inventory

Type	Quantity	Pump Capacity	Tank Capacity
Engines	5	1,500 GPM	1,000
Engine/Tanker	1	1,500 GPM	1,500
Ladders	1	1,750 GPM	500
Tankers	2	1,250 GPM	2,000 min.
Brush	1	125	300
Chief’s Car	3	N/A	N/A
Support Vehicles	6	N/A	N/A

Figure 55 provides an understanding of a possible fleet inventory that would best serve the citizens of Monroe. It is important to understand that fleet inventories within volunteer organizations can vary distinctly from those commonly found within career organizations. A significant consideration, beyond the usage of a fire engine to provide fire suppression activities, is the reality that the departments need to transport firefighters from the station to the emergency scene in an effective manner. In career organizations, a single fire engine per fire station would be appropriate with an established ratio of reserve engine to support front line units whenever maintenance is required. Additionally, in career fire departments, all on-duty personnel respond on a single unit, but in a volunteer system, the numbers of responder vary from incident to incident. This inconsistency in establishing the number of responders who will respond requires the department to have a sufficient number of emergency response apparatus to transport firefighters to an incident. Absent a sufficient number of emergency response apparatus to transport personnel, volunteers must respond to an emergency incident in their personal vehicles. The three fire departments serving Monroe have wisely limited the ability of volunteers responding directly to emergency incidents in their personal vehicles.

The proposed fleet inventory establishes a basic plan of placing two fire engines at each fire station and a single aerial within the Town. This recommendation is not made with the intent of immediately removing the second aerial from the fleet inventory, but to be addressed at a point in the future whenever apparatus replacement is a consideration. The proposed inventory also takes into account the need for "tender" operations in the non-hydrant areas of the Town, as well as "support" vehicles that can be used to transport firefighters to incidents. The proposed inventory does not take into account "specialty" vehicles that may be necessary as a result specific risk.

Key Recommendation:

- Establish a collective capital inventory program that serves the needs of the citizens of Monroe effectively and efficiently.

Staffing

An organization's most valuable asset is its people. It is important that special attention be paid to managing human resources in a manner that achieves maximum productivity while ensuring a high level of job satisfaction for the individual. Consistent management practices combined with a safe working environment, equitable treatment, opportunity for input, and recognition of the workforce's commitment and sacrifice are key components impacting job satisfaction. This section provides an overview of the three fire departments' staffing configuration and management practices. In order to ensure an adequate number of members, all departments must focus on practices which support their volunteer members through an effective recruitment and retention plan.

Operational Staffing

NFPA Standard 1720 calls for a minimum of four firefighters on-site before an interior attack on a structure is begun, this supports the "two-in/two-out" requirement. The two (or more) outside firefighters are in place to provide a rapid intervention team (rescue team) in support of the entry team. A two-person safety team is referred to as a rapid intervention crew (RIC), while a four-person team is designated as a rapid intervention team (RIT). The "two-in/two-out" requirement, while not a specific law in some states, is law within the state of Connecticut as part of OSHA 1910.134. Additionally, this standard has become the accepted "industry standard" for improving firefighter safety during fire suppression operations. The ability of a fire department to have the "two-in/two-out" team in place prior to beginning interior firefighting operations is a key factor in conducting a realistic risk assessment.

Operational staffing may best be considered from the perspective of staffing on each responding fire apparatus (engines, trucks, and rescue vehicles). Ensuring that an apparatus is properly or minimally staffed, prior to responding, is the most effective manner to ensuring that a sufficient firefighting force is on-scene before fire attack is begun. Recognizing that sufficient staffing may be challenged by a volunteer workforce, time of day, and day of week, some mechanism for response, with less than minimum staffing should be considered, particularly after waiting for additional personnel to respond to the fire station. For example, after a predetermined time frame, a less than fully staffed apparatus may respond, but will be required to notify dispatch of (below normal) staffing by broadcasting a message such as "Engine X responding with 'Y' firefighters."

The Fourth Needs Assessment of the U.S. Fire Service (NFPA, 2016) reports that in communities of 10,000–24,000, 79 percent of fire departments respond with an average of four or more volunteer firefighters.[7]

Policies and Operational Guidelines

Each of the three fire departments maintain policies and procedures specific to their agency. Recently the departments have begun to work toward the development of common operational procedures. In interviews with firefighters and leadership, the desire to work together in a collaborative manner has not always been a reality. It is worth noting that firefighters consistently indicated a desire to continue this initiative as they are seeing the positive results during emergency operations. It is recommended the departments continue to develop common operational procedures.

[7] Fourth Needs Assessment of the U.S. Fire Service, National Fire Protection Association, November 2016.

While each of the three departments which serve the Town of Monroe have their own organizational rules, culture, and practices, they are interdependent and collaborate during a significant emergency incident. The creation and existence of general or standard operating guidelines (GOGs or SOGs) speaks to the importance of ensuring a standard and consistent set of performance practices during an emergency. These guidelines are essential to ensuring that specific tasks are accomplished as well as task responsibility.

When considering the interdependent nature of emergency response throughout the Town of Monroe, it is recommended that the departments collaborate and institute standard operational practices/procedures. This manual will ensure standard operational practices throughout the town, regardless of specific response district.

Reports and Records

Each of the three fire departments have established processes and procedures addressing each organization's responsibilities in managing the records and reports used in their respective department's operation. However, these processes and procedures varying from agency to agency with varying degrees of effectiveness. It is recommended the three departments work to establish common processes and procedures to ensure consistency in the maintenance of relevant reports and records.

The *National Fire Incident Reporting System* (NFIRS) is a voluntary reporting system designed to capture incident related information and then make estimates of the U.S. fire problem. The NFIRS systems, managed by the U.S. Fire Administration (USFA), is the most robust fire-based data collection system, with over 2/3 of all U.S. fire departments reporting their fire data via the NFIRS system.

While voluntary in nature, it is highly recommended that each of the three fire departments serving the Town of Monroe report fire data to NFIRS, consistent with the NFIRS guidelines. Reporting these data will require each department to train and designate a responsible party as the department NFIRS program manager.

The *Connecticut Fire Incident Reporting Systems* (CFIRS) is a statewide incident reporting system that collects, compiles, analyzes, and distributes statistical information reported by the Connecticut Fire Service from Fire Marshals and Fire Departments throughout the state. The CFIRS complies with Connecticut General Statute 29-303 and is a resource for state and local government, private agencies and organizations, the media and the public.

The data collected by CFIRS is based on the National Fire Incident Reporting System (NFIRS) that all fire departments and fire marshals must use to document all incidents to which they respond. Reports are submitted to the Office of Education and Data Management by electronic (disk), hard copy, or email format during the calendar year.

These reports are then used to gather information on such items as the numbers and types of fires, number of EMS calls, causes of fires, numbers of civilian injuries and deaths related to fires, fire service injuries and deaths, and much more. Participation in the National Fire Incident Reporting System (NFIRS) and the Connecticut Fire Incident Reporting System (CFIRS) gives the Fire Departments the ability to apply for the Federal Firefighter Grant Program. Because the data collected through CFIRS it is critical that each of the departments assign specific individuals to enter incident data and conduct quality assurance checks on a regular basis.

Disciplinary Processes and Procedures

Two of the three agencies have established written policies for the administration of disciplinary process. Even within volunteer organizations the effective administration of discipline is critical. The inconsistent and ineffective administration discipline is a significant risk to the organization. It is recommended the three agencies work to establish consistent disciplinary processes and procedures.

Generally, each department's "rules of conduct" should address common issues such as:

- General roles and responsibilities of members
- Role specific duties (i.e., Officers, Apparatus Drivers, Training Officer, Safety Officer, etc.)
- Conduct
- Reporting for duty
- Adherence to training standards, SOPs, chain of command, etc.
- Compliance with State of Connecticut rules pertaining to firefighters and fire departments

Counseling Services

The 4th Needs Assessment of the U.S. Fire Service (2016) reports that only 20 percent of fire departments have a behavioral health program for personnel, however all three of the agencies provide some level of counseling services. Recent reports inform us that the rate of suicide by fire personnel far surpasses the number of line of duty deaths annually. The increasing instances of firefighters taking their lives by suicide is approaching epidemic levels across the United States. As a result, this has brought to light the issue of mental health wellness, suicide prevention, and the need for leadership to provide proactive training and counseling services to their staff members. It is recommended the three fire departments and Town leadership work to establish effective counseling and mental health wellness programs to the members of the fire departments and should consider education programs for the immediate family members of firefighters. In addition, it is recommended that the departments create a policy regarding activation of a *critical incident stress debriefing* (CISD) team. It is also critical to understand that counselors provided through EAP programs must be "trauma trained" to ensure an appropriate plan is established.

Application and Recruitment

Each of the three fire departments have process and procedures utilized whenever interested individuals desire to become a member of one of the departments. In general, the procedures utilized are relatively similar. It is recommended the three fire departments continue to refine these processes and procedures to ensure consistency across all three agencies.

Recruitment and retention of quality personnel was identified as one of the most significant issues facing the three organizations. It is recommended the departments evaluate current recruitment and retention efforts and implement industry "best practices" as identified. This will be an ongoing issue for the three departments, but will prove to be highly beneficial as long as the community expects the departments to operate a volunteer system.

Additionally, the National Volunteer Fire Council (NVFC) has a portal dedicated to recruitment of volunteer firefighters. The portal is accessible at: https://portal.nvfc.org. The NVFC portal, along with other state and national resources, should be consulted as part of a recruitment and retention strategy.

Testing, Measuring, and Promotional Processes

The three fire departments have established processes and procedures to conduct periodic skills assessments of their respective staff members. The departments have differing requirements relative to competency testing of members, as well as different requirements for conducting annual performance reviews. It is recommended that the three fire departments work to establish consistent processes for the assessment of their respective members.

Health and Safety

The three fire departments have different policies relative to the operation of a standing safety committee. It is recommended the three fire departments work to establish consistent policies and procedures relative to the health and safety of their collective memberships. It is important to note that the leaderships of the three fire departments have identified the issue of cancer as one of the most significant dangers facing their memberships. It is recommended the leadership teams of the departments and the Town work to implement industry "best practices" in preventing firefighter exposure to carcinogens. There are a number of approaches to mitigating firefighter exposure to carcinogens and a "one-size fits all" solution does not exist.

The most important first step toward reducing exposure is to promote practices that reduce exposure, and some of the least complicated initiatives are most effective. For example, instituting an on-scene gross decontamination procedure, use of personal cleaning wipes, and limiting exposure to contaminated gear while on the firetruck and back in the station will effectively reduce exposure. Additional steps to reduce exposure should include regular cleaning of turnout gear, showering and changing clothes/uniform immediately upon returning to quarters, and storing turnout gear to minimize exposure to the member (i.e., not storing contaminated gear in a member's personal vehicle). These suggestions are not necessarily recommendations, but are rather examples of relatively simple procedures that will reduce exposure risks to members. It is recommended that the fire departments and Town to work together to develop solutions which protect personnel from undue risk, effective programs and procedures are not cost-prohibitive.

Key Recommendations:

- Develop minimum staffing requirements for all primary response vehicles.
- Establish common processes and procedures to ensure consistency in the maintenance of relevant reports and records.
- Develop and adopt a (common) standardized operating guidelines/procedures for use in the Town of Monroe
- Establish consistent disciplinary processes and procedures.
- Ensure that each department has a dedicated NFIRS program manager, and reports required fire data to the State's Department of Emergency Services and Public Protection.
- Establish effective counseling and mental health wellness programs to the members of the three fire departments.
- Develop a policy regarding activation of a CISD team.
- Refine processes and procedures to ensure consistency in application and recruitment processes.
- Implement industry "best practices" in preventing firefighter exposure to carcinogens.

Administrative and Support Staffing

The size and structure of an organization's staffing is dependent upon the specific needs of the agency. These needs must directly correlate to the needs of the community and a structure that works for one entity may not necessarily work for another agency. This section provides an overview of the staffing configurations and management practices of each agency.

Fire department staffing can be divided into two distinctly different groups. The first group is what the citizens typically recognize and is commonly known as the operations unit, which can be generally classified as the emergency response personnel. The second group typically works behind the scenes to provide the support needed by the operation's personnel to deliver effective emergency response and is commonly known as the administrative section.

Figure 56: Monroe Administrative and Support Staff Positions

	Monroe	Stepney	Stevenson
Fire Chief	1	1	1
Deputy Chief	1	1	1
Assistant Chief	1	1	1
President	1	1	1
Vice-President	1	1	1
Secretary	1	2	1
Treasurer	1	1	1
Total administrative & support staff (Number)	**7**	**8**	**7**

One of the primary responsibilities of a fire department's administration is to ensure that the operational section of the organization has the ability and means to respond to and mitigate emergencies in a safe and efficient manner. An effective administration and support services system is critical to the success of any emergency services provider.

Like any other part of a municipal fire department, administration and support need appropriate resources to function properly. By analyzing the administrative and support positions within an organization we can create a common understanding of the relative resources committed to this function compared to industry best practices and similar organizations. The appropriate balance of administration and support compared to operational resources and service levels is a key factor to ensuring the department can accomplish its mission. It is important to note that this analysis is relatively straightforward in a career organization, but less so in a volunteer system as the administrative and operational roles are often held by those serving in both functions.

Typical responsibilities of the administration and support staff include planning, organizing, directing, coordinating, and evaluating the various programs within the department. This list of functions is not exhaustive and other functions may be added. It is also important to understand these functions do not occur in a linear fashion and can most often occur concurrently. This requires the Fire Chief and administrative support staff to focus on many different areas at the same time.

Administration

The administrative function within the departments is currently established with the positions of Fire Chief, Deputy Chief, Assistant Chief, and the elected board members. Some of the typical responsibilities of the

administrative members of a fire department include planning, organizing, directing, and budgeting for all aspects of the department's operations. The current number of positions assigned to this activity are sufficient to meet these expectations.

Fire Prevention

NFPA 1730: Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations provides criteria for establishing and operating an effective fire prevention program. The Town of Monroe has established a Fire Prevention Division separate from the fire departments and is staffed with four individuals. The Fire Marshal is assigned to a 40-hour work week in an administrative position, responsible for the direction and management of the Town's overall fire prevention plan. The operating structure of the division provides management and oversight of the department's risk reduction responsibilities for the Town.

Training

The National Fire Protection Association (NFPA) has provided criteria through which volunteer and combination fire departments should operate its training program. Each of the departments have established training programs. The departments have identified an individual responsible for the management of the training program. It is recommended the three fire departments establish a training committee comprised of a member from each agency to establish a common annual training plan to be used by each department to ensure consistency in the delivery of training to all firefighters serving the Town of Monroe. The establishment of a common training plan will have the added benefit of improving emergency scene operations whenever the departments respond together.

Emergency Management

The emergency management function is provided by a separate department within the Town and not a function of the fire departments. The Town's Emergency Manager is a member of the Stevenson Fire Department and has served as its Fire Chief in the past. The Town of Monroe's emergency management function is similar to many communities across the United States. Generally speaking, the emergency management function of many communities is not typically under the direction of the fire departments.

Emergency Response Staffing

It takes an adequate and properly trained staff of emergency responders to put the appropriate emergency apparatus and equipment to its best use in mitigating incidents. Insufficient staffing at an operational scene decreases the effectiveness of the response and increases the risk of injury to all individuals involved.

Tasks that must be performed at a fire can be broken down into two key components—life safety and fire flow. Life safety tasks are based on the number of building occupants, and their location, status, and ability to take self-preservation action. Life safety related tasks involve search, rescue, and evacuation of victims. The fire flow component involves delivering sufficient water to extinguish the fire and create an environment within the building that allows entry by firefighters.

The number and types of tasks needing simultaneous action will dictate the minimum number of firefighters required to combat different types of fires. In the absence of adequate personnel to perform concurrent action,

the command officer must prioritize the tasks and complete some in chronological order, rather than concurrently. These tasks include:

- Command
- Scene safety
- Search and rescue
- Fire attack
- Water supply
- Pump operation
- Ventilation
- Back-up/rapid intervention

The first 15 minutes is the most crucial period in the suppression of a fire. How effectively and efficiently firefighters perform during this period has a significant impact on the overall outcome of the event. This general concept is applicable to fire, rescue, and medical situations. Critical tasks must be conducted in a timely manner in order to control a fire or to treat a patient. The leadership of each of the three fire departments is responsible for assuring that responding companies are capable of performing all of the described tasks in a prompt, efficient, and safe manner.

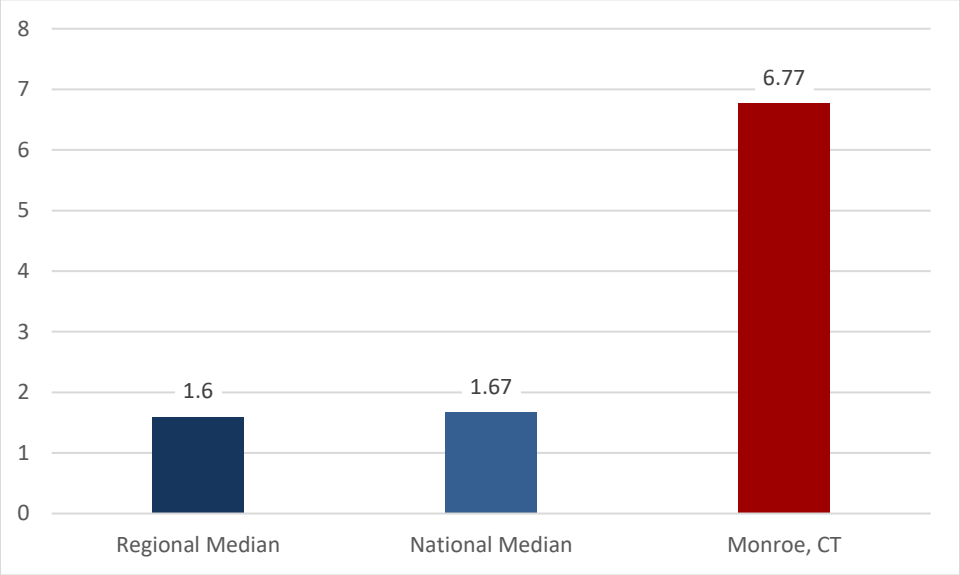
Considerable ongoing national discussion and debate around large incidents of significant consequence have brought attention to the matter of firefighter staffing. Frequently, this discussion is set in the context of firefighter safety. While there are published standards regarding firefighter staffing, they generally speak in terms of the number of firefighters assigned to a particular response apparatus, often characterized as a preferred standard of "… a minimum of four personnel per company." ESCI notes that the more critical issue is the number of firefighting personnel assembled in a reasonable amount of time at the scene of an emergency that can perform the required critical tasks to mitigate the emergency, regardless of the type or number of vehicles upon which they arrive.

It is important to understand that the assembly of firefighters on an incident, also called an "Effective Firefighting Force" or "Effective Response Force," is a determination that is made at the community level based on risk, capability, and citizen expectations.

There is no mandated requirement for specific staffing levels, though there are standards discussed in detail in this report. In the Service Delivery section, resource concentration is evaluated in detail.

Another means of comparison is that of measuring the number of firefighters on staff per 1,000 population of the service area. The following figure illustrates the current volunteer staffing levels of the three fire departments on a per 1,000 population basis, with both national and regional medians presented as a comparison.

Figure 57: Staffing per 1,000 Population Comparison



When viewed collectively, the three departments have a firefighter per 1,000 comparison that is significantly higher than other departments regionally and nationally. It is important to note that "volunteerism" across the United States is on a decline and many fire departments are having difficulty recruiting volunteers. While in a good position at this time, the challenges of recruiting volunteer firefighters is likely to become more significant than what the departments are currently experiencing. It is also important to understand this figure does not consider the various work schedules or life demands that negatively impact the ability of volunteers to respond to emergency incidents.

Fire and EMS Training Delivery

Providing safe and effective fire and emergency services requires a well-trained response force. The training and education of personnel are critical functions for any emergency services provider. Without quality, comprehensive training programs, emergency outcomes are compromised and emergency personnel are at risk.

> *"One of the most important jobs in any department is the thorough training of personnel. The personnel have the right to demand good training and the department has the obligation to provide it."*[8]

Initial training of newly hired firefighters is essential, requiring a structured recruit training and testing process. Beyond introductory training, personnel need to be actively engaged on a regular basis and tested regularly to ensure skills and knowledge are maintained. To accomplish this task, agencies must either have a sufficient number of instructors within their own organization or be able to obtain those resources elsewhere. Training sessions should be formal and follow a prescribed lesson plan that meets specific objectives. In addition, a safety officer should be dedicated to all training sessions that involve manipulative exercises.

In the following pages, ESCI reviews training practices of the three fire departments serving Monroe, compares them to national standards and best practices, and recommends modifications, where appropriate.

General Training Competencies

For training to be fully effective, it should be based on established standards. There are a variety of sources for training standards. All three departments utilize the National Fire Protection Association (NFPA) job performance requirements, International Fire Service Training Association (IFSTA) training materials, and Connecticut Firefighter Training standards as the basis for its fire suppression training practices, and national Emergency Medical Services standards are used as the baseline for medical training coursework.

All three agencies operate under a National Incident Management System (NIMS) compliant ICS system and a compatible accountability. Firefighter training is consistent with NFPA 1001 with interior firefighter trained to a minimum Firefighter I level, and it is the goal of each agency to have personnel trained to Firefighter II level. Individuals not trained to the Firefighter I level may be assigned exterior operational duties based upon their individual training levels. Differing levels of training exists between the agencies relative to specialty rescue (i.e., ice rescue), however, the three agencies have trained response personnel to the "operational" level for hazardous materials incidents.

[8] Klinoff, Robert. Introduction to Fire Protection, Delmar Publishers, 1997. New York, NY.

Figure 58: Training Hours by Type, 2017

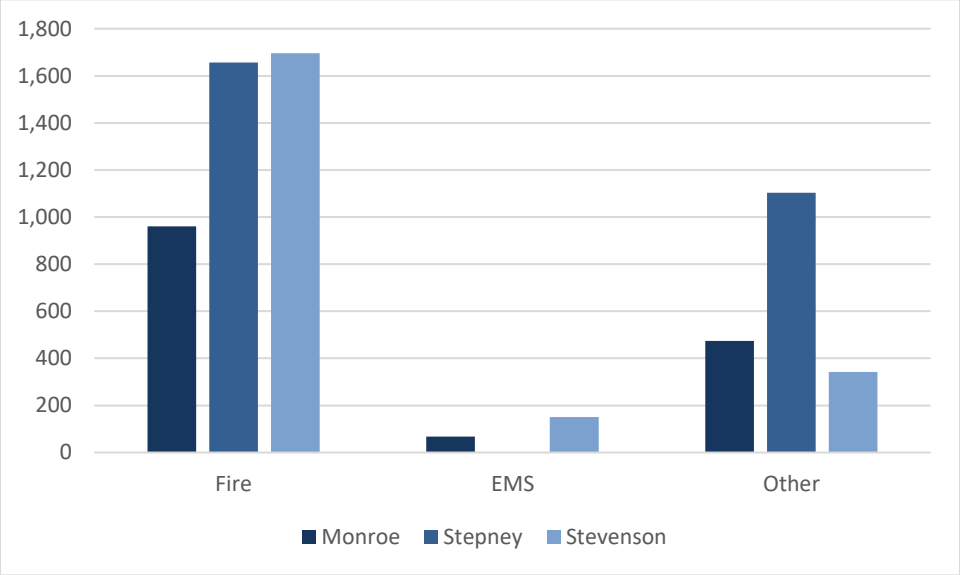
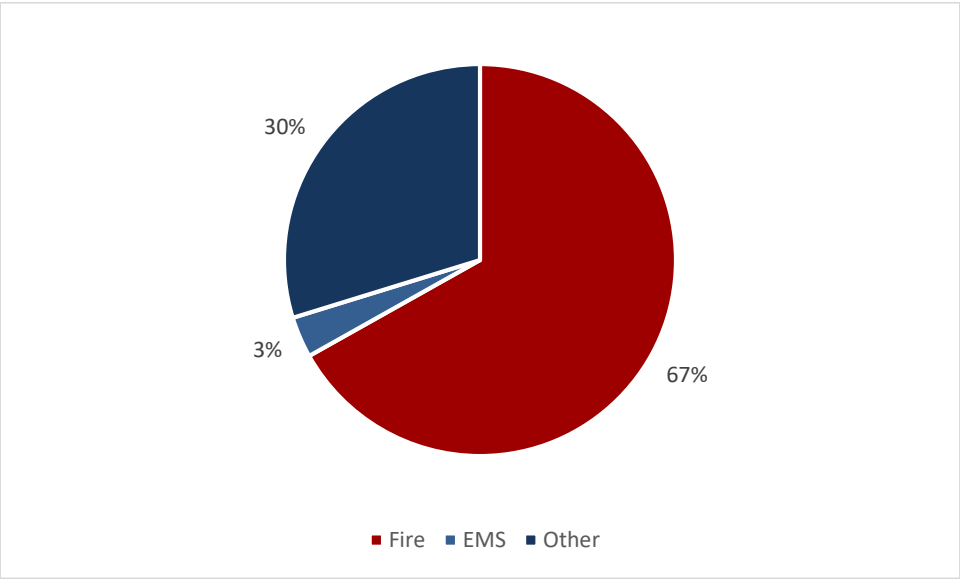


Figure 58 provides a graphical representation of the training activities of each fire department's personnel in 2017. Fire based training accounts for a majority of each agency's training activity at 67 percent, and EMS training accounts for the smallest portion at 3 percent of their training. The small amount of EMS training is not unexpected as the response to medical emergencies is not a primary responsibility of the departments. When the departments are called to respond to a medical incident, it is in support of the Town's EMS service. The remaining category identified as "other" includes a wide variety of topics that include driver training, hazardous materials, and vehicle rescue.

Figure 59: Total Training by Percentage



A review of the general training competencies that are included in each fire department's fire-related training program reveals that the necessary baseline subject areas are addressed. Following is additional discussion related to the training program's foundational configuration.

Training Program Management and Administration

To function effectively, a training program needs to be intentionally managed. Administrative program support is important, though often minimally provided. An additional element of effective administration is the development of program guidance in the form of training planning, goals, and defined objectives.

Each of the three fire departments conduct regular training and are generally considered to be consistent with accepted standards. However, the three fire departments have slightly different approaches to the overall management of their respective training programs. These differences are not critical to ensuring a properly trained emergency response force is capable of mitigating the typical emergencies experienced by the citizens of Monroe. However, improvements could be made to ensure each of the training programs are operated in a similar manner to ensure consistency across the three agencies.

Training Resources, Scheduling, and Methodology

To deliver effective training to fire and EMS personnel, resources are necessary to enable the trainer with the tools needed to provide adequate educational content. In addition to tools, effective methodologies must be employed if delivery is to be sufficient to meet needs. The following section provides an overview and analysis of the resources and methodologies available to each fire department in the delivery of training to its members.

TRAINING RESOURCES

Each of the departments indicate varying levels of training resources. Having one of the newer facilities within the Town of Monroe, the leadership of Stevenson indicates having a sufficient amount of area to conduct training with an acceptable number of props. However, Monroe and Stepney have limited space to conduct training efficiently. Absent a dedicated training location, the departments must utilize whatever open space is available (i.e., parking lots).

TRAINING SCHEDULING

All three fire departments have established regular training schedules. The scheduling of training activities for all of the departments occur during evening sessions which is common among volunteer fire services across the United States. However, little coordination occurs among the three fire departments relative to common training schedules and training curriculums. It is recommended the departments work to establish a common training schedule with a common curriculum.

TRAINING METHODOLOGIES

Quality training programs must be multi-faceted to truly accomplish an organization's training goals and objectives. The methodologies utilized must include hands-on training in addition to lecture-based presentations. All three fire departments provide for their personnel to use hands-on applications of training to enhance learning and demonstrate skill competency. However, the three departments conduct task performance and evaluation at different frequencies. Additionally, the three fire departments have established training officer positions and utilize formal lesson plans to deliver training.

In addition to NFPA standards and Connecticut training standards, the Insurance Service Organizations (ISO) provides specific training criteria utilized as part of its Fire Suppression Rating Schedule. The ISO training requirements include specific hours in night drills, multi-company drills, and pre-fire planning. While the departments provide some of these components, the effective documentation must be accomplished to obtain maximum benefit. A review of the training of each department indicates the departments do not specifically identify the ISO training categories. This issue was of concern in the 2013 ISO report as the three fire departments were only able to earn 1.67 points out of a possible 9 relative to the "credit for training" category. It is recommended the three fire departments form a training committee charged with the development and implementation of a training program that address the deficiencies identified within the ISO report.

In addition to utilizing ISO training requirements to refine the current training program, it is recommended the departments make additional changes based upon NFPA 1410: *Standard on Training for Emergency Scene Operations*. This standard can serve as the basis for delivering drills that objectively measure the performance of personnel responding to emergency incidents.

A significant component to ensuring the safety of firefighters includes conducting an effective post-incident analysis (PIA) of fire department operations. An effective PIA provides the opportunity for firefighters and officers to learn from their personal actions and experiences. In addition to improving firefighter performance, the PIA has the added value of improving firefighter safety. It is recommended the three fire departments develop a formal PIA process to be conducted following each major incident.

Training Facilities and Recordkeeping

For organizations to effectively deliver training, it must be accomplished in an environment representative of those that emergency responders are expected to operate in. This requires specific props and facilities to be available. Additionally, departments must not only have the ability to train in realistic environments, but they must effectively record all training activities of their personnel. As discussed, previously, the presence of proper record keeping allows the department to improve its fire protection classification through the Insurance Services Organization (ISO) as well as use the documentation to make effective decisions relative to future training efforts. The following sections provide an overview and analysis of each fire department's training facilities and record keeping.

Training Facilities

The ability to train in a realistic environment is critical to developing and maintaining skills. Many of the skills necessary to be truly effective must be taught and practiced in a controlled environment allowing for skill development and yet ensures firefighters are as safe as possible. Additionally, ISO requires the regular usage of dedicated training locations to gain maximum credit for Public Protection Classification scoring. Currently, the three departments must utilize the State Training School facilities located outside of the response jurisdiction and available spaces within the community. The lack of a dedicated training facility caused a negative impact within the Town's ISO report. It is recommended the three departments establish dedicated training ground to obtain maximum benefit during its next ISO grading. The establishment of a dedicated training ground does not have to be elaborate and expensive to receive an improvement in the previous ISO score for training.

Training Recordkeeping

The three fire departments have maintained the training records of their respective personnel in a computerized format using different records management systems, but recently began using a common records management system. Additionally, the departments have different procedures for the entry of records and inventory control. It is recommended the three fire departments establish common procedures for the recording of all training activities.

The three fire departments have made a strong commitment to training in many regards. However, this is an area in which the three agencies can collectively make improvements and positively impact the Town of Monroe. Many fire departments across the United States do an exceptional job of training personnel to entry-level requirements, but many fall-short in the delivery of on-going training of staff members. In addition to ensuring personnel have the quality knowledge, skills, and abilities necessary to deliver effective and efficient emergency services, training programs have an added effect of improving employee morale.

Key Recommendations:

- Form a training committee to address the deficiencies identified within the 2013 ISO report.
- Develop a formal post-incident analysis process to be conducted following major incidents.
- Establish dedicated training grounds to obtain maximum benefit during its next ISO grading.
- Establish common procedures for the recording of all training activities.

Fire Prevention and Public Education Programs

The traditional fire service perspective of programs relating to fire prevention, community outreach, and public education is to refer to them, collectively, as *fire prevention programs*. While the historic approach to prevention has effectively focused on *fire* prevention, the emerging trend is to focus on a more holistic, all-hazards, approach focusing on *community risk reduction*. Regardless of terminology, a focused risk management/reduction program, through pro-active delivery of fire and life safety services, is a fire department's best opportunity to minimize the losses and human trauma associated with fires and other community risks.

The National Fire Protection Association recommends a multifaceted, coordinated risk reduction process at the community level to address local risks. This requires engaging all segments of the community, identifying the highest priority risks, and then developing and implementing strategies designed to mitigate the risks.[9]

A fire department needs to review and understand the importance of fire prevention and public education, appreciating its role in the planning process of a community with diversified zoning including residential, commercial, and industrial properties. The initial steps in assessing the fire department's role in providing risk reduction services is to determine the community risk(s) and then developing a strategic, though not necessarily complex, approach to reducing those risks or threats. When considering community risk(s) identification, the best practices approach advocates that fire departments partner with other community service agencies, such as EMS or health care agencies. Upon identification of a community risk(s), the respective departments can design a program which mitigates these risks; part of any strategy should include data collection in order to assess the impact of the intervention program(s).

While community risk identification and reduction programs may provide a new sense of focus for a fire department, there are existing programs which play a proven, and important, role in the reduction of fire losses and injuries.

Some of the most common public education/risk reduction programs are:

- Smoke detector installation program and carbon dioxide detectors.
- Home safety:
  - Cooking safety and awareness.
  - Exit drills in the home.
  - Identification of slip, trip, and fall hazards.
  - Sleeping with closed bedroom door.
- Swimming pool safety.
- Community CPR classes.

[9] Kirtley, Edward, *Fire Protection Handbook*, 20th Edition, 2008, NFPA, Quincy, MA.

As valuable and important as community risk reduction is, for many fire departments, the three most fundamental fire prevention components are fire code enforcement, public education, and fire investigation. The fundamental components of these effective fire prevention programs are reviewed in the following sections.

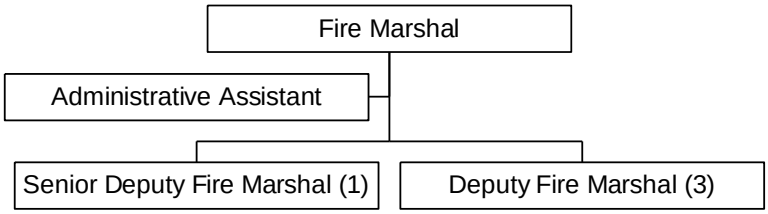
The fundamental components of an effective fire prevention program are listed in the following figure, accompanied by the elements needed to address each component:

Figure 60: Fire Prevention Components

Fire Prevention Program Components	Elements Needed to Address Program Components
Fire Code Enforcement	Proposed construction and plans review New construction inspections Existing structure/occupancy inspections Internal protection systems design review Storage and handling of hazardous materials
Public Fire and Life Safety Education	Public education Specialized education Juvenile fire setter intervention Prevention information dissemination
Fire Cause Investigation	Fire cause and origin determination Fire death investigation Arson investigation and prosecution

The Town of Monroe operates an active fire and life safety program which supports the above-mentioned fire prevention program components and the associated elements for each. Interviews conducted during the site visit established that the Fire Marshal and his staff have a healthy appreciation of fire prevention within the community. The Fire Marshal clearly understands the significance of having a quality program that is valid and credible if the Town is to effectively serve its constituents. The Fire Marshal is a full-time staff member and is supported by four part-time Deputy Fire Marshals, see Figure 61.

Figure 61: Fire Marshal's Office Organizational Structure



In the following sections and figures, the program components listed in the previous figure are compared to specific initiatives currently in place within the Town of Monroe.

Code Enforcement

A strong fire prevention program, based on locally identified risk and relevant codes and ordinances, reduces loss of property, life, and the personal and community-wide disruption that accompanies a catastrophic fire. Best practices dictate that the best way to effectively increase life safety is to prevent fires and other emergencies rather than respond to them. The financial impact of a fire or injury goes far beyond the cost of extinguishment or treatment. The long-term impacts realized by an individual building owner through the loss of revenue is significant. However, additional fiscal impacts are felt by the community through the loss of employee salaries and associated spending. It is also common for businesses to never re-open following a fire, and the community then further suffers through the loss of tax revenue.

The fiscal impacts of injuries, while not as immediately observable, can be equally devastating. Individuals experiencing an injury lose the ability to earn an income during the recovery time and businesses lose productivity of that individual until they return to work. Beyond the fiscal impacts associated with lost work time, injured persons and families often experience significant emotional trauma, as well as a potential change in their quality of life.

The Town of Monroe Fire Marshal is responsible for conducting a variety of code enforcement and building inspections and enforcing the 2018 edition of the Connecticut State Fire Prevention Code and State Fire Safety Code (based on 2015 edition of NFPA 1—Fire Code). These duties include code enforcement, annual building inspections, including educational institutions, and plans review for new construction projects, in addition to other prevention-based programs.

New Construction Plan Review

An essential component of a fire prevention program is new construction plan review. New construction plan review is a code enforcement practice which ensures that new construction projects, and substantial renovation projects, conform to applicable fire code and life safety provisions of the Connecticut Fire Prevention Code. Plans examiners review site plans to ensure fire protection (alarms, sprinkler/standpipe systems), building systems (elevators, ventilation systems, and so forth), building egress, and structural elements meet or exceed the minimum requirements contained in the fire prevention code. Plans review requires a strong technical knowledge base, a working knowledge of construction methods, a highly refined attention to detail, and can be very time consuming. Fire code plan review is conducted by the Fire Marshal and staff. ESCI recommends that the Fire Marshal should notify fire companies of the pending development, including site plans, and significant hazards that may be present during construction (i.e., inadequate water supply, poor site access). It is also recommended that the departments be notified of the existence of lightweight construction elements (i.e., roof or floor trusses). Depending on requirements of the fire prevention code, the presence of lightweight construction elements may require a visual placard system to inform firefighting personnel and other emergency responders.

General Inspection Program

The inspection of existing occupancies, with the intent to find and eliminate potential life hazards, is an essential part of the overall fire protection system. These efforts are most effective when completed by individuals having the proper combination of training and experience, and when completed with appropriate frequency.

For purposes of this document, general inspection refers to property inspection and includes annual building inspections and fire code enforcement. The fire prevention code requires that specific types of occupancies (i.e., commercial, residential, assembly, educational, etc.) are inspected on a regular basis, as determined by the *authority having jurisdiction* (AHJ), typically, the municipality or governmental entity. The Monroe Fire Marshal's Office conducts annual inspections for the approximately 425 commercial, educational, and multi-family residential buildings (those with more than two units) within the town, encompassing structures in all three fire districts. Additionally, the Fire Marshal's Office conducts site visits and develops pre-emergency plans for at-risk buildings and specific occupancy types (e.g., places of assembly, target hazards, etc.).

The matter of pre-incident planning for target hazards throughout the community was not referred to during ESCI's information gathering process. ESCI recommends that a process be developed to identify and develop pre-incident plans for target hazards (elevated risk potential), and other high-value or high-impact structures. NFPA 1620 (2015) *Standard for Pre-Incident Planning.*

For more information on developing a fire prevention program, consult NFPA 1730 (2016) Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education.

Fire and Life Safety Public Education Program

Providing fire and life safety education to the public to minimize the number of emergencies while training the community to take appropriate actions when an emergency occurs is essential to a fire and life safety program. Life and fire safety education provides the best chance for minimizing the effects of fire, injury, and illness to the community.

Public education and outreach is generally coordinated through the Fire Marshal's Office, in conjunction with each individual fire company. The largest single community outreach/public education event is the annual fire department open house event, scheduled to coincide with fire prevention week. The event is held at the *Fireman's Field* and all three fire companies participate. The event features a variety of public education and fire safety programs and demonstrations, including live fire extinguisher training, smoke detector education program, and general interaction with the town's firefighters and their equipment. The program enjoys widespread community support and represents an effective method for community engagement.

Additional public education and outreach involves school visits by respective fire companies and focuses on general fire and safety awareness for school-aged children, including the importance of smoke detectors and education on how to access help (i.e., 911 center). Finally, the Fire Marshal's Office coordinates an annual event at the local *senior center* which focuses on community interaction and general fire safety awareness.

Fire Cause and Origin Determination

Accurately determining the cause of a fire is an essential element of a fire prevention program. When fires are set intentionally, identification and/or prosecution of the responsible offender is critical in preventing additional fires and potential loss of life. Further, if the cause of fires is accidental, it is also of great importance because knowing and understanding how accidental fires start is the most effective way to identify appropriate fire prevention and public education measures to prevent a reoccurrence.

The Fire Marshal's Office and staff are generally responsible for fire investigation duties within the Town. Each of the Fire Marshal's staff members are certified by the State of Connecticut as Fire Investigators in conformance with NFPA 921 standards governing fire investigations. The Town's Fire Investigators are not sworn *peace officers, nor police officers*, as such, the Fire Marshal's staff works closely with the local police, especially when investigations duties require such assistance. Should an investigation necessitate assistance or specific expertise the local investigations team can request assistance from the State.

Statistical Collection and Analysis

The data collection and analysis processes currently utilized between the three fire departments and the Town's Fire Marshal's Office are inconsistent. The presence of an effective data collection and analysis ensures the Town to record incident data and produce reports. Absent an effective process, the departments and Town cannot plan and establish departmental operations and adjust procedures. ESCI recommends the Fire Marshal's Office and fire departments' leadership utilize this data to develop a monthly report to allow for the regular review of incident data and the response performance of each department. The information contained within a common records management system provides valuable information that can assist the departments and Town in identifying areas of concern needing to be addressed through its fire prevention programs. It is ESCI's position that improved data collection methods, consistent reporting methods and procedures, and developing a specific set of evaluative tools is one of the most important and beneficial steps that should be taken to improve the overall level of service provided throughout the town. These tools will allow the fire departments to benchmark their respective performance and the level of service provided to the residents of Monroe.

Key Recommendations:

- Develop a common intervention program to identify and mitigate community risks. Regularly review the impacts and outcomes of intervention programs.
- Fire Marshal's Office and fire departments' leadership should utilize this data to develop a monthly report to allow for the regular review of incident data.
- Develop a pre-incident planning program for target hazards and other high value occupancies.

Emergency Communications

Communication center operations are essential, directly affecting fire and EMS response times, service levels, overall service delivery, and customer satisfaction. Dispatch operations are integral to a successful emergency operation, starting with the initial "alarm" and continuing until units are available for redeployment.

Emergency communications is an integral part of every first responder system. Dispatchers are the first line of communication when someone has an emergency. In essence, dispatchers are the first "first responder." It is important to recognize the vital role that communicators play in operational efficiency and the delivery of services. Ultimately, it is essential that communication centers dispatch the right resource to the right location at the right time.

Dispatch services are provided for the fire departments serving the Town of Monroe by the Southwest Regional Communications Center (SRCC). ESCI met with representatives from the dispatch provider to gain an understanding of the overall dispatch operations and its impacts upon emergency response within Monroe. The conversation centered around each of the dispatch facilities involved, current operations, and any future plans for change.

The operation of the dispatch center is funded by Southwest Regional Communications Center with the Town of Monroe contributing approximately $66,000. In 2017, SRCC dispatched the three fire departments serving the Town to 596 incidents, as well as the Monroe Volunteer Emergency Medical Services. Where appropriate, it is recommended that leadership of the fire departments serving Monroe and Town leadership actively work with the communications center leadership to ensure compliance with NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems wherever possible. It is also recommended that the leadership of the three fire departments and the Town establish a standing communications committee to continually evaluate ongoing aspects of communications center operations impacting the fire departments serving the Town of Monroe. This analysis should always include feasibility of changing providers should such a change better serve the citizens of Monroe.

It is considered to be an industry "best practices" to establish professional standards to ensure quality dispatch services are provided. NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems and 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 are considered two of the standards by which communications center operations should be established and monitored. These standards identify performance measures relative to the amount of time it takes a communicator to answer 911 calls and the amount of time it takes to process the 911 call for dispatch of fire apparatus. It is recommended that the leadership of the three fire departments and Town of Monroe leadership work with SRCC to ensure compliance with 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.

As the Town of Monroe prepares for an eventual re-inspection by ISO, it is critical that leadership communicates the needs of the departments relative to ISO grading. The ISO grading process accounts for 10 percent of the ISO score based upon the communications center and its operations. As part of the grading process for the Town, and all other fire departments dispatched by Southwest Regional, ISO will grade the dispatch center. As a result, each of these departments will receive the same communications center score as Monroe. Any improvements in operations or procedures will have the benefit of impacting all of the departments equally. It is recommended that the leadership of the Monroe fire departments and Town work to establish a "communications workgroup" committee consisting of all fire departments being served by SRCC to provide a "common voice" to address the communications center needs of the departments.

In addition to the benefits of ISO grading, should the fire departments serving the Town of Monroe ever choose to achieve accreditation through the Commission on Fire Accreditation International (CFAI), their ability to measure performance of the various components of the response time continuum will be critical to success. As with the ISO scoring, any of the other departments served by Southwest Regional desiring to achieve CFAI accreditation will benefit from any improvements made within the dispatch processes.

Tracking the individual pieces of total response time assists with identifying deficiencies and areas for improvement. The NFPA 1710 standard specifies that call-processing time should not exceed 90 seconds (measured at the 90th percentile). The call processing time performance criteria is applicable to NFPA 1710 and NFPA 1720 organizations as the dispatch center is staffed and capable of achieving the criteria for both organization types.

Figure 62: NFPA Recommendations

Response Element	NFPA Recommendation
Call Processing[10]	0:90 @ 90th percentile
Turnout Time[11]	1:20 @ 90th percentile

Key Recommendations:

- Work with Southwest Regional Communications Center to ensure compliance with NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems where appropriate.
- Work with Southwest Regional Communications Center to ensure compliance with 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 where appropriate.
- Establish a standing communications committee to continually evaluate all aspects of communications center operations impacting the Town of Monroe.
- Establish a "communications workgroup" committee consisting of all fire departments being served by SRCC to evaluate all aspects of communications center operations impacting the regions.

[10] NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems.
[11] NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.

Service Delivery and Performance

The delivery of fire suppression, rescue, and emergency medical services is no more effective than the sum of its parts. It requires efficient notification of an emergency and rapid response from well-located facilities in appropriate apparatus with an adequate number of well-trained personnel following a well-practiced plan of action. This section of the report provides an analysis of the current service delivery components of the three fire departments serving the Town of Monroe.

Demand

In the demand analysis, ESCI reviews current and historical service demand by incident type and temporal variations for the Town of Monroe. GIS software is used to provide a geographic display of demand within the study area. National Fire Incident Records System (NFIRS) data, incident response data, and apparatus response data collected by the department is used in this section of the report. The following figures demonstrate historical service demand of each department serving the Town. In 2017, 598 calls for service were requested within the town boundaries of Monroe and the three departments responded to a total of 623 calls when mutual aid requests are included.

Figure 63: Town of Monroe Service Demand by Incident Type; 2017 SRCC Data

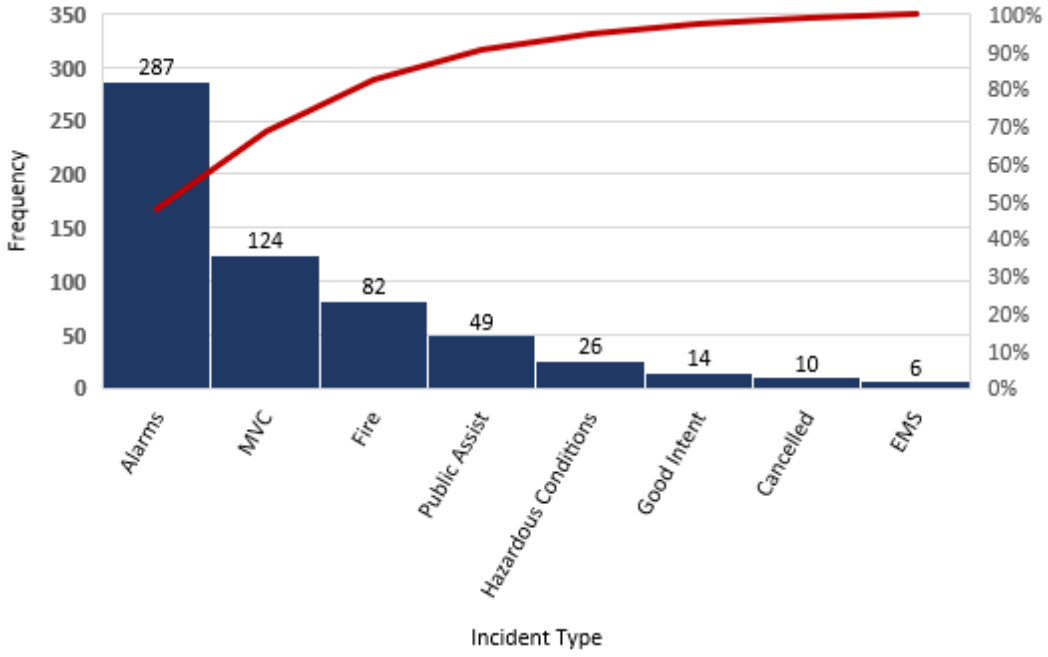
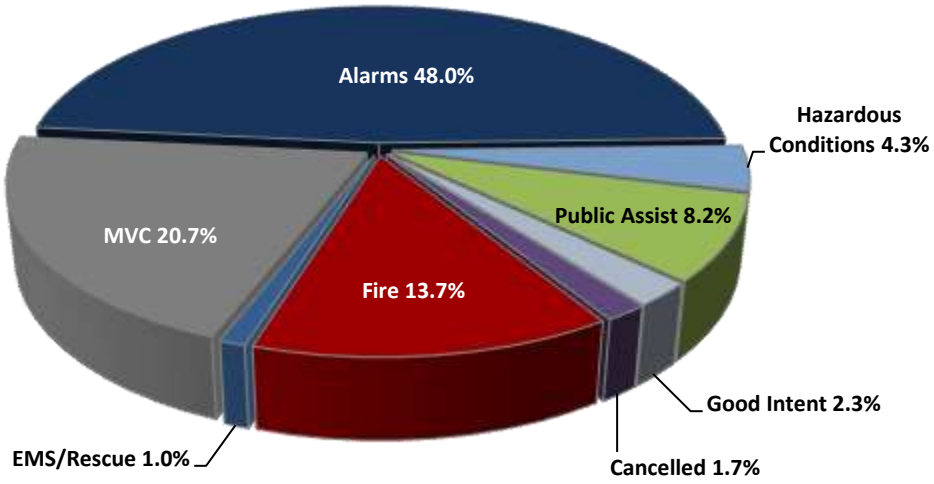


Figure 64: Town of Monroe Frequency by Incident Type; 2017 SRCC Data



Temporal Variation

It is also useful to evaluate service demand temporally to understand any trending that occurs during certain periods where staffing can be modified to better fit the demand. The following figures display 2017 service demand within the Monroe study area; summarized by various measures of time.

Figure 65 provides a graphical representation of service demand throughout the year, with the highest demand occurring between March and August. This period of time accounts for approximately 55 percent of the emergency response by the three fire departments. Additionally, outside of the month of January (11 percent) the remaining months remain relatively consistent at 4–8 percent monthly.

Figure 65: Service Demand by Month, 2017

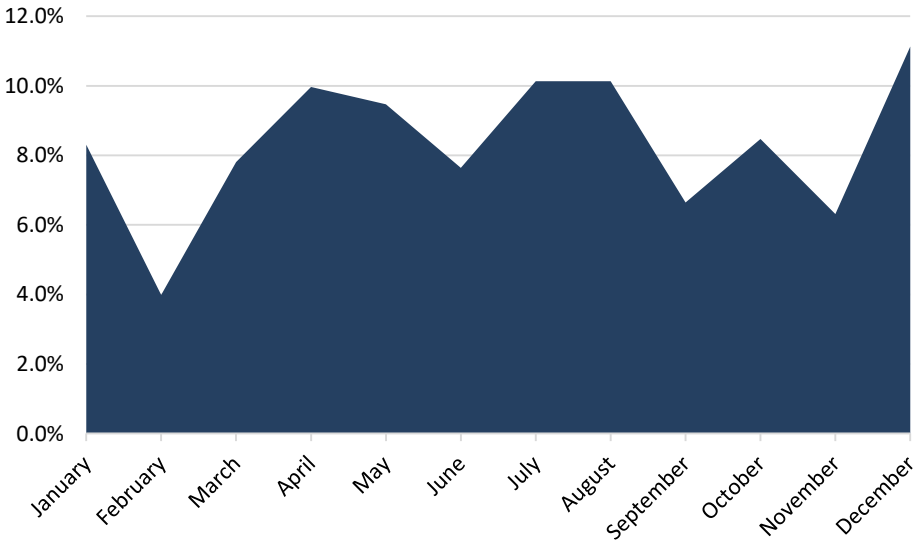
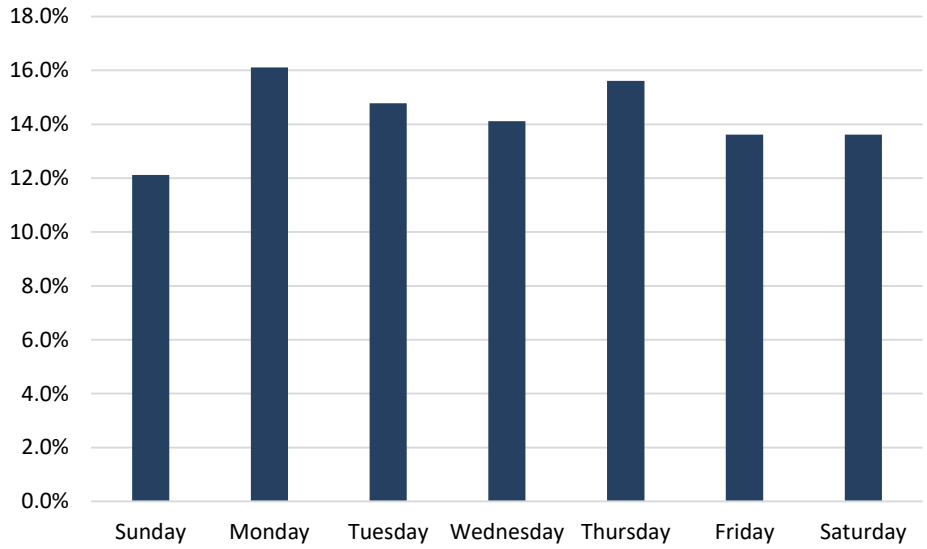


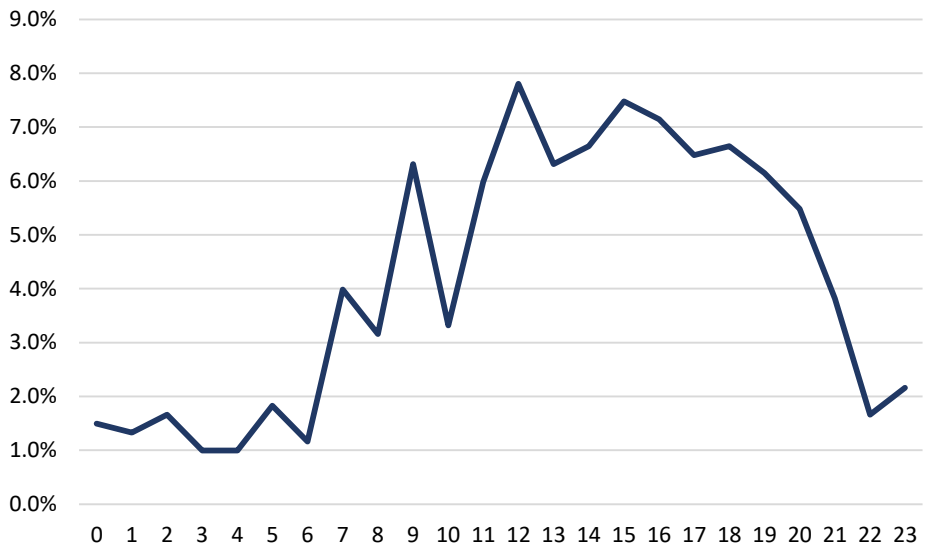
Figure 66 provides an understanding of call activity on a daily basis. As with monthly service demand, daily service demand varies throughout the week. Again, the range is relatively narrow with the department's call activity between 12–16 percent per day.

Figure 66: Service Demand by Day of the Week



Service demand directly correlates with the activity of people, with workload significantly increasing during daytime hours and decreasing during nighttime hours as shown in Figure 67. Incident activity is at its highest between 7:00am and 9:00pm, accounting for more than 86 percent of calls for service. This provides a challenge for the three fire departments to anticipate increased workload utilizing the current volunteer structure as these time periods are the same timeframes in which volunteer personnel are committed to work and other personal demands. Slightly more than 72 percent of the combined call activity occurs between the hours of 6:00am and 6:00pm. This is a factor the three fire departments have come to understand anecdotally and have adjusted daytime response to automatically dispatch all three fire departments during this time to ensure enough members can respond to effectively manage and incident.

Figure 67: Service Demand by Hour of the Day



Geographic Service Demand

In addition to the temporal analysis of service demand, it is useful to examine the geographic distribution of service demand. Using dispatch center incident location data provided by the Southwest Regional Communications Center, ESCI plots incident locations and calculates the mathematical density of 2017 service demand in the Monroe service area.

Distribution

The analysis of resource distribution presents an overview of the current deployment of fire department facilities, equipment, and personnel within the Monroe service area.

There are two standards commonly used in the fire service to determine an agency's response distribution. The first, and most common, standard is the Insurance Service Organization's (ISO) application of road miles from a fire station and water supply measurement. The second standard comes from the National Fire Protection Association (NFPA) standard 1720: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments and utilizes a time component coupled with "fractile" reporting of response times. When used in tandem, these two standards help emergency services leaders understand current service level capabilities and plan for future impacts. The following section provides an analysis of both the ISO and NFPA 1720 stand6ards.

Figure 68: Monroe Service Area and Station Response Districts

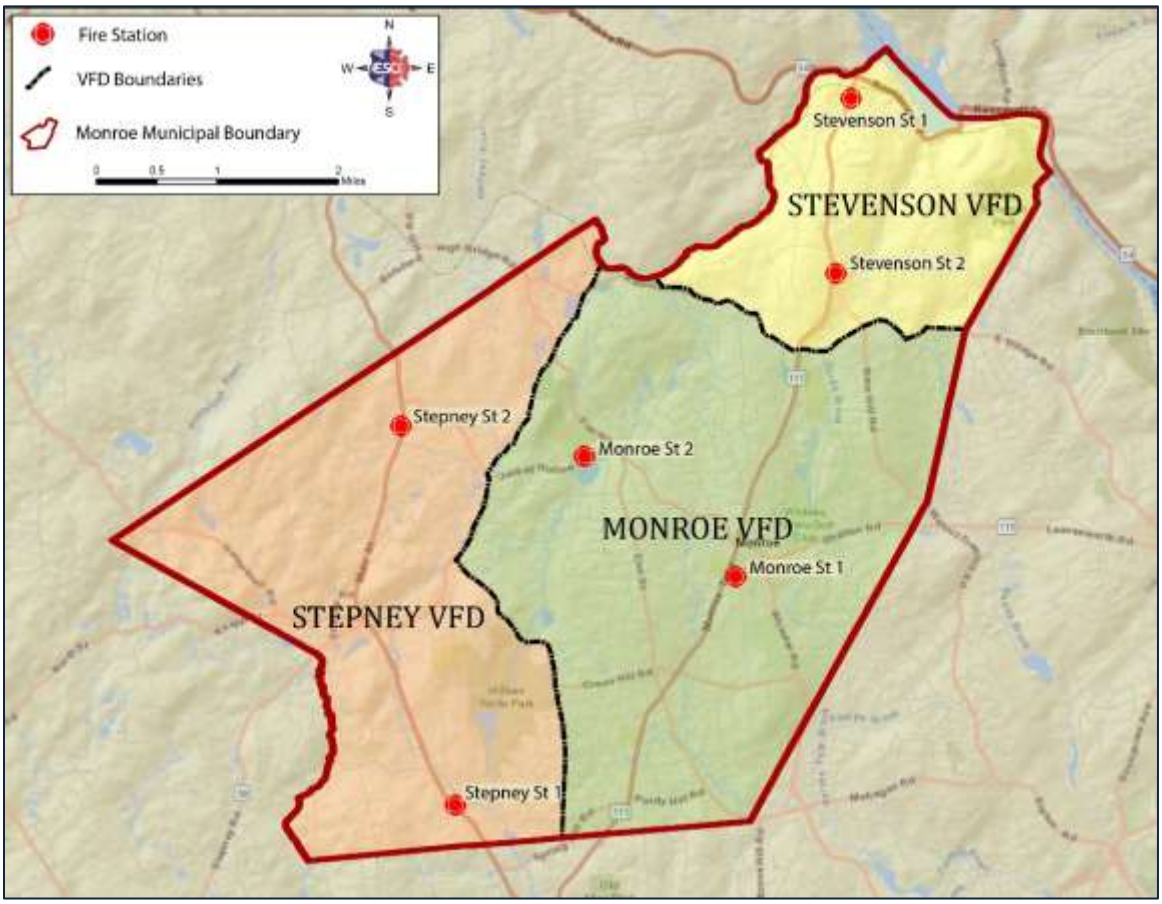


Figure 68 provides an understanding of the coverage areas to which each fire department is assigned. It is important to note that the stations are not strategically placed based upon any previous analysis, but most likely resulted simply from the availability of land to build upon. Many factors must be considered when establishing the response area of a fire station. An important consideration when evaluating the town's fire services distribution is that each department does not have an "equal" amount of coverage area. Typically, departmental leaders utilize call volume, unit activity, road miles, and topography to determine where stations are located. However, historically, fire stations are located based upon the availability of land and/or buildings. While economically appealing, this often results in the placement of a fire station in an area not best suited to serve the community. When fire stations are located too close, there tends to be an ineffective usage of resources as one station tends to "over-run" another station. Conversely, when stations are located too far apart there tends to be "gaps" in coverage and delays occur in the assembly of an effective response force to mitigate an emergency. These factors are discussed in greater detail throughout this report.

Figure 69: Monroe Population Density

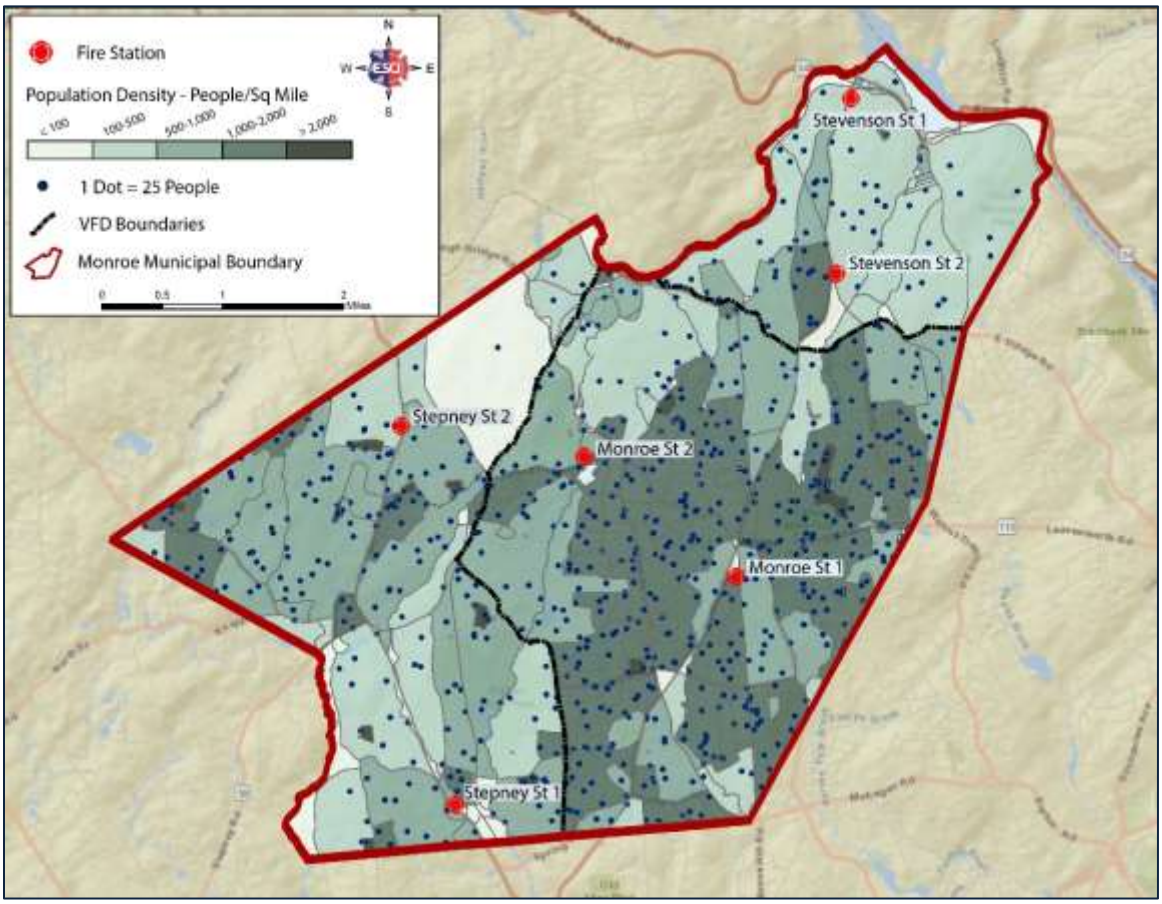


Figure 69 provides an understanding of the population densities with the response areas of each fire department. The darkest green areas represent the largest population density at more than 2,000 people per square mile. The response area of the Monroe Volunteer Fire Department has multiple densities exceeding 1,000 people per square mile. The response area of the Stevenson Volunteer Fire Department generally has population densities of less than 1,000 people per square mile and the composition of the Stepney Volunteer Fire Department has a mixture of high and medium population densities per square mile. Understanding population densities within each jurisdiction will help the leadership of the three fire departments anticipate impacts on service as the community changes. In the following figure, incident locations and frequency are displayed to provide a comparison of how population density impacts where calls for service are likely to occur.

Figure 70: Monroe Service Demand by Incident Location and Frequency, 2017

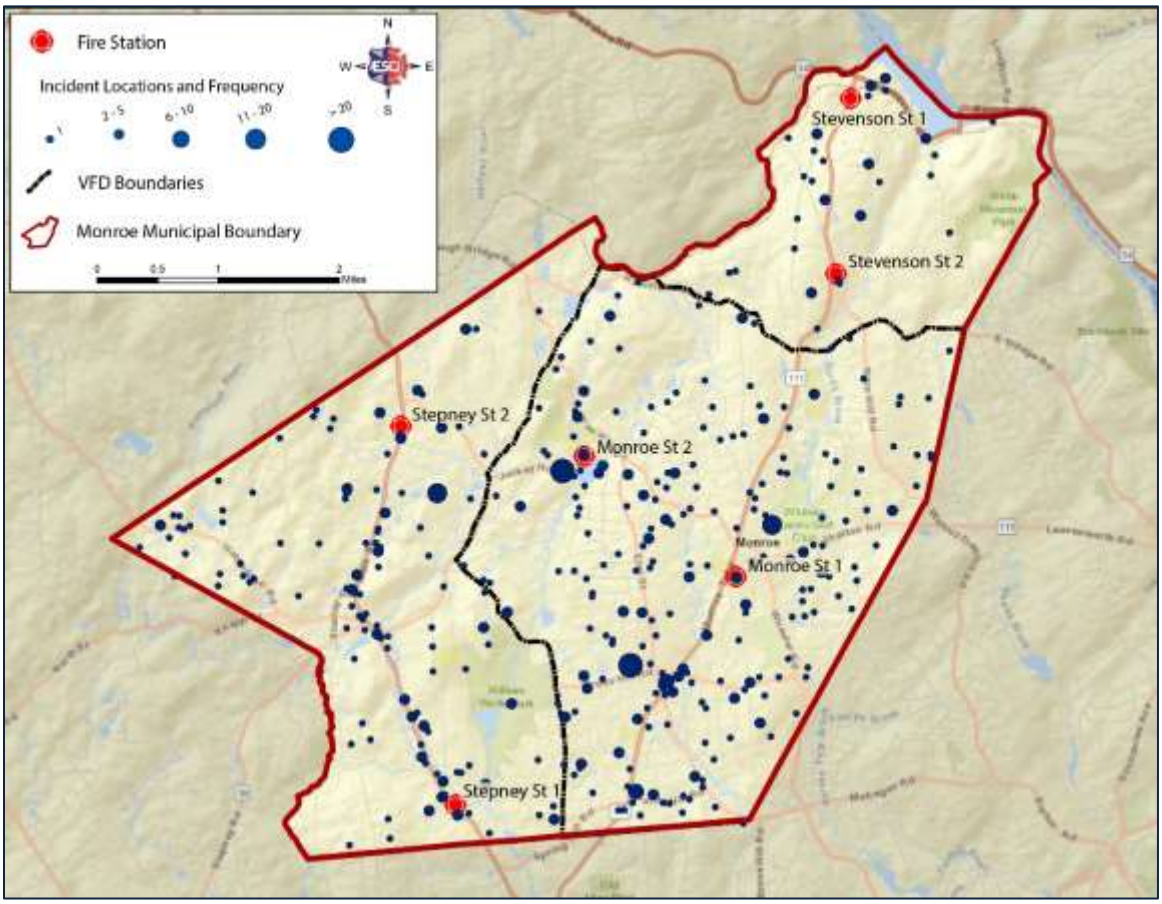


Figure 70 provides an understanding of the volume of calls occurring within each of the response jurisdictions. The Monroe Fire Department is identified as having the largest incident count of the three fire departments and Stevenson having the least amount. This is not necessarily indicative of service quality but is more reflective of call volume being correlated with the population counts within each station's response area. A comparison of the previous two figures provides insight in to how population density and distribution affects service demand.

Insurance Service Organization

The Insurance Services Organization (ISO) is a national insurance industry organization that evaluates fire protection for communities across the country. A jurisdiction's ISO rating is an important factor when considering fire station and apparatus distribution, since it can affect the cost of fire insurance for individuals and businesses. To receive maximum credit for station and apparatus distribution, ISO recommends that in urban areas, all "built upon" areas in a community be within 1.5 road miles of an engine company and 2.5 miles of a ladder company (aerial apparatus). Additionally, ISO states that a structure must be within five miles of a fire station to receive any fire protection rating for insurance purposes. The following figures examine current station and apparatus distribution of the three fire departments based on credentialing criteria for the Insurance Services Organization (ISO).

The next two figures examine current station and apparatus distribution based on credentialing criteria for the Insurance Services Organization (ISO).

Figure 71: Monroe Engine Company Distribution—ISO Criteria

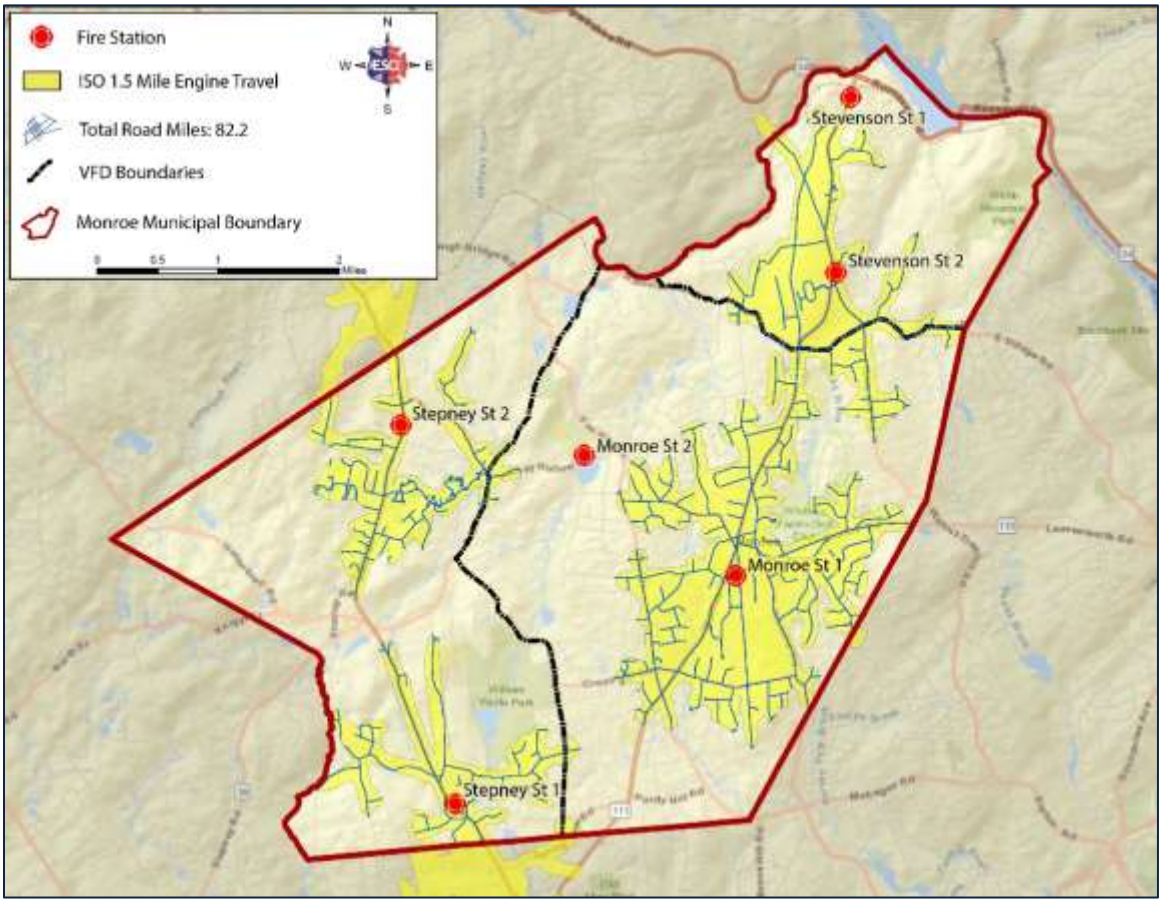


Figure 71 demonstrates the areas of the service area that are within 1.5 miles of an engine company. A five-mile analysis was not provided as 100 percent of the Town is within this parameter. ISO requires that any areas outside of the five-mile radius will receive a classification of 10, which would have a negative impact upon a property owner's ability to obtain insurance. With all the "built upon" roads within the service area being within the five-mile limit, all properties are eligible for scoring by ISO. It is important to note that the current location of the two Stepney stations and Stevenson Station 1 are located near their respective service area boundaries and the 1.5-mile radius of each station is essentially cut in half. This graphic brings attention to the fact that the stations are not in the best situated locations to serve the areas of responsibility from a distance perspective.

Figure 72: Monroe Aerial Company Distribution—ISO Criteria

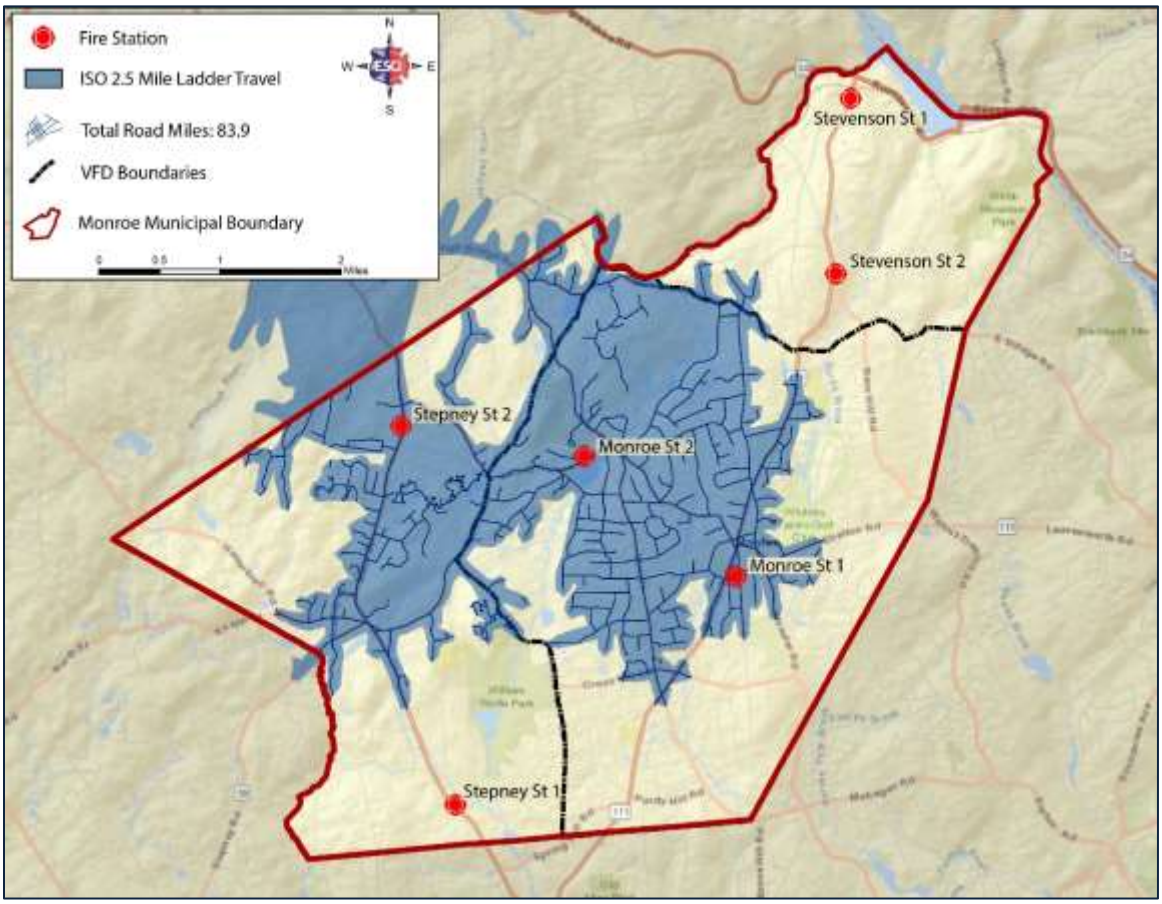
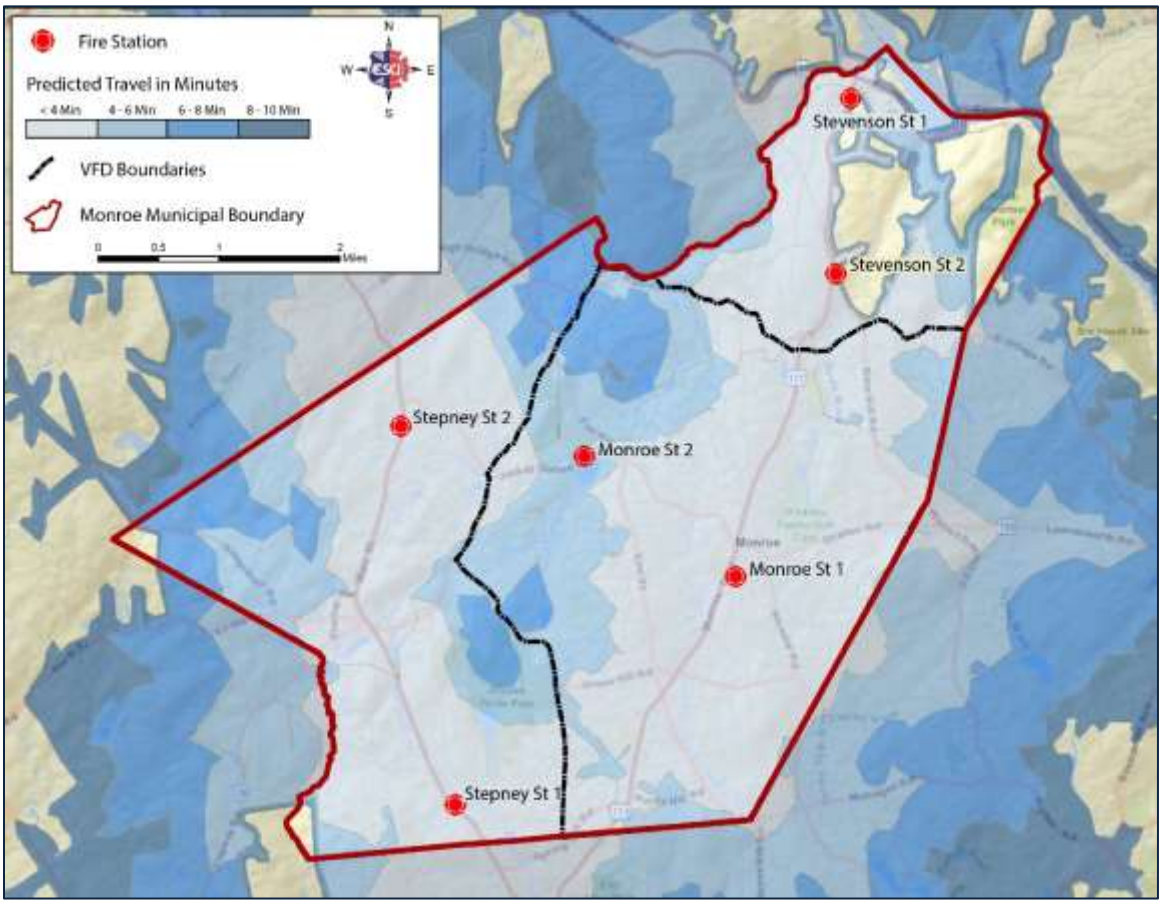


Figure 72 demonstrates the current 2.5-mile coverage are of the two aerial units currently serving the Town. At the time of the ESCI team site visit, Monroe Volunteer Fire Department (MVFD) housed an aerial device at MVFD Station 2, which is to be transitioned to serving as the Town's EMS Station. The ISO criteria for ladder company distribution is based on the presence and number of buildings over three stories in height when determining whether or not a ladder company is required. In reviewing the figure, it is apparent the aerial device currently located at Stepney's Station 2 cannot take advantage of full 2.5-mile ISO coverage area. Due to its location near a boundary, the aerial unit loses half of its ISO coverage area with a significant amount of its northern 2.5-mile area extending outside of Monroe. Additionally, Monroe's aerial device loses a portion of its maximum coverage area due to the same issue as Stepney, with a portion of the coverage extending outside of the Town.

NFPA 1720

NFPA 1720 provides that volunteer fire departments serving areas of suburban population densities of 500–1,000 people per square mile have the ability to deploy 10 firefighters with 10 minutes of initial notification to the scene of a fire. In the following figure, the predicted travel times from each fire station are illustrated using ESRI's Living Atlas traffic network information. In this analysis, Monroe Station 2 was not included to provide the Town with a display of how travel times can be expected to be impacted when this location is transferred to the Monroe Volunteer Emergency Medical Services.

Figure 73: Monroe Predicted Travel Time Capability—Current Station Locations



From this map, it is clear the fire departments can respond throughout the Town in eight minutes or less. It is important to understand these travel times are "predicted" and can be affected by variable outside of the fire departments' control (i.e., traffic, weather). Specific information regarding actual response performance by each company is presented in the response performance section of this report.

Concentration

Accepted firefighting procedures call for the arrival of the entire initial assignment or "effective firefighting force" (sufficient apparatus and personnel to effectively deal with an emergency based on its level of risk), within a reasonable amount of time. This is to ensure enough people and equipment arrive in a timely manner to safely control a fire or mitigate any emergency before there is substantial damage or injury. In this analysis, ESCI examines the ability of the three fire departments to assemble multiple resources across the study area.

It is important to note that in a volunteer system in which emergency responders must return to the station to then respond to an emergency there are many variables to the response structures for each fire station and its respectively assigned staff. At the time of this report, the three fire departments did not collect incident data in a manner allowing for an effective concentration analysis to be completed. It is recommended that the departments establish a common set of written procedures to standardize the entry and recording of emergency response data to allow for an analysis to be completed in understanding the ability of the departments to assemble an effective response force.

Reliability

A review of workload by station and response unit can reveal much about response performance and a department's ability to assemble adequate resources to mitigate simultaneous incidents. Although fire stations and response units may be distributed in a manner to provide quick response, that level of performance can only be obtained when the response unit is available in its primary service area. At the time of this report, the three fire departments did not collect incident data in a manner allowing for an effective reliability analysis to be completed. It is recommended that the three fire departments establish service demand zones to allow for a more detailed analysis of station workloads.

Response Performance Analysis

Perhaps the most publicly visible component of an emergency services delivery system is response performance. Most citizens and policymakers alike want to know how quickly they can expect to receive services.

In this performance analysis, ESCI examined response performance within the Town of Monroe. Data used in this analysis was provided by Southwest Regional Communications Center. Due to the practice of dispatching all agencies in Monroe during the work day to ensure a response, GIS software was used to separate an incidents location based on service area boundaries provided.

Figure 74: NFPA 1720 Staffing/Deployment Matrix

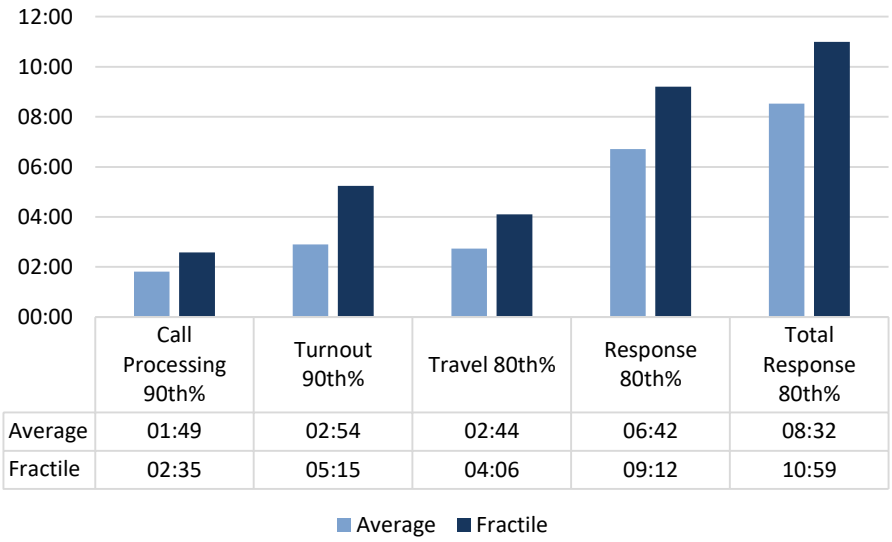
Demand Zones	Demographics	Min. Staff to Respond	Response Time (minutes)	Performance Objective
Urban	More than 1,000 people per sq. mi.	15	9	90%
Suburban	500 to 1,000 people per sq. mi.	10	10	80%
Rural	Less than 500 people per sq. mi.	6	14	80%
Remote	Travel distance 8 miles or more	4	Dependent upon travel distance	90%
Special Risk	AHJ determines	Based on risk	AHJ determined	90%

The previous figure measures total response time being comprised of several different components:

- Call Processing Time—the amount of time between when a dispatcher answers the 911 call and resources are dispatched.
- Turnout Time—the time interval between when units are notified of the incident and when the apparatus are enroute.
- Travel Time—the amount of time the responding unit actually spends travelling to the incident.
- Total Response Time—equals the combination of "Processing Time," "Turnout Time," and "Travel Time."

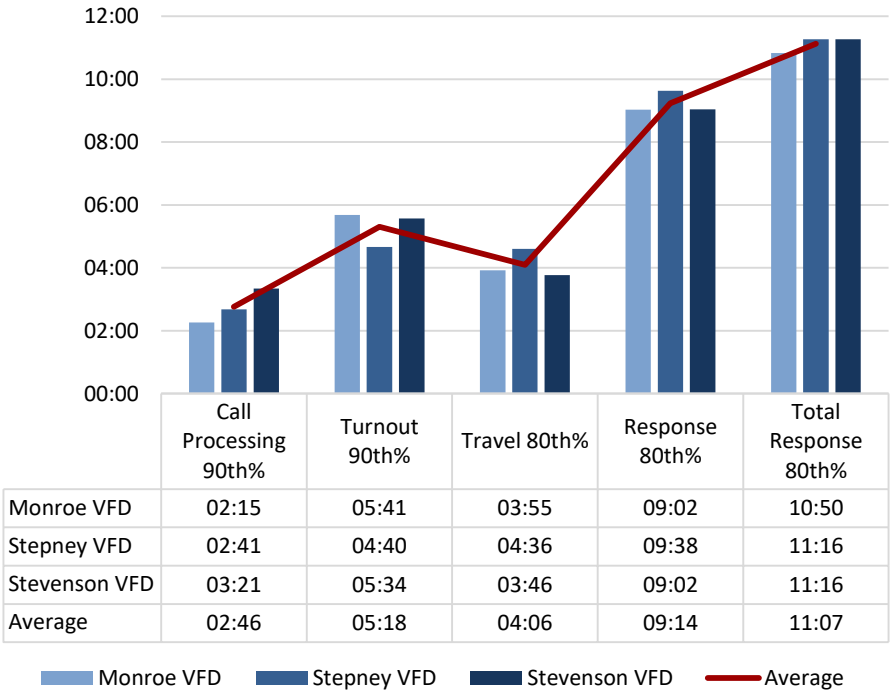
Figure 75 provides an understanding the collective performance of the three fire departments for 2017 for the various components of total response time at the 80th percentile.

Figure 75: Town of Monroe Response Performance at 80th Percentile, All Emergencies 2017



	Call Processing 90th%	Turnout 90th%	Travel 80th%	Response 80th%	Total Response 80th%
Average	01:49	02:54	02:44	06:42	08:32
Fractile	02:35	05:15	04:06	09:12	10:59

Figure 76: Town of Monroe Performance Summary by Department, 2017



	Call Processing 90th%	Turnout 90th%	Travel 80th%	Response 80th%	Total Response 80th%
Monroe VFD	02:15	05:41	03:55	09:02	10:50
Stepney VFD	02:41	04:40	04:36	09:38	11:16
Stevenson VFD	03:21	05:34	03:46	09:02	11:16
Average	02:46	05:18	04:06	09:14	11:07

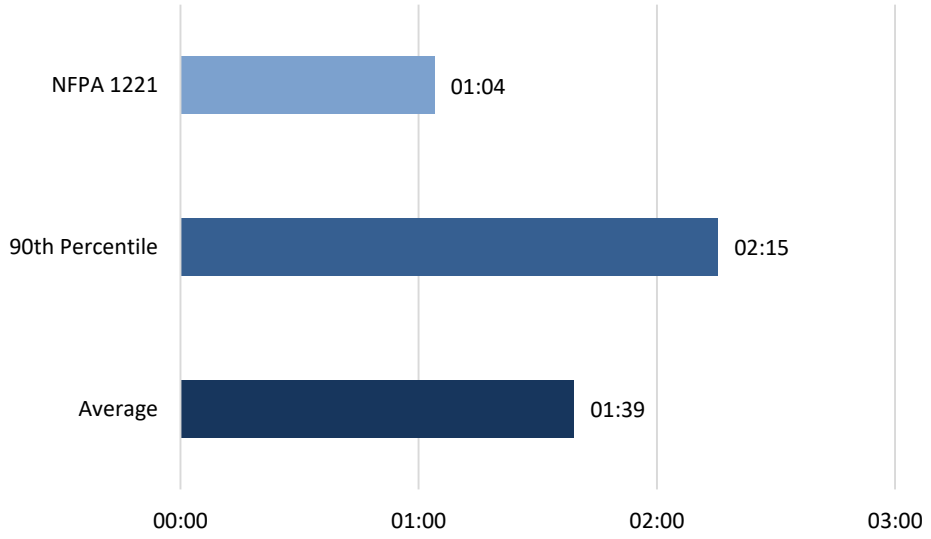
Historically, fire departments have reported response times in an "average" format. The practice of reporting response times in an average format is not truly representative of the actual performance of an organization as by its very nature average reporting means that essentially half of the calls are above a "mean" point and half below that same point. To understand each fire department's performance in the historical "average" format, ESCI provided the following figures as a frame of reference.

With an overview of the Town's overall response performance provided, next, specific metrics of each department will be examined starting with Monroe, then Stepney, and concluding with Stevenson.

Monroe Volunteer Fire Department (MVFD)

Call processing for MVFD displayed the best performance with a processing time of 2 minutes, 15 seconds at the 90th percentile. While SRCC dispatches all calls for the Town, a consideration for this improved performance is most likely attributed to the higher call volume experienced by MVFD; therefore, any outliers have a less significant impact on the dataset than Stepney, for example, with approximately half of the call volume of MVFD, or Stevenson with very low call volume. As the three agencies within the Town functionally operate as one department during periods of the greatest service demand, during work week hours, and on medium to high risk incidents, such as structure fires, the totals provided for the Town as a whole are most likely the best indicators of performance; however, specific metrics such as turnout and travel are also important considerations for individual company performance.

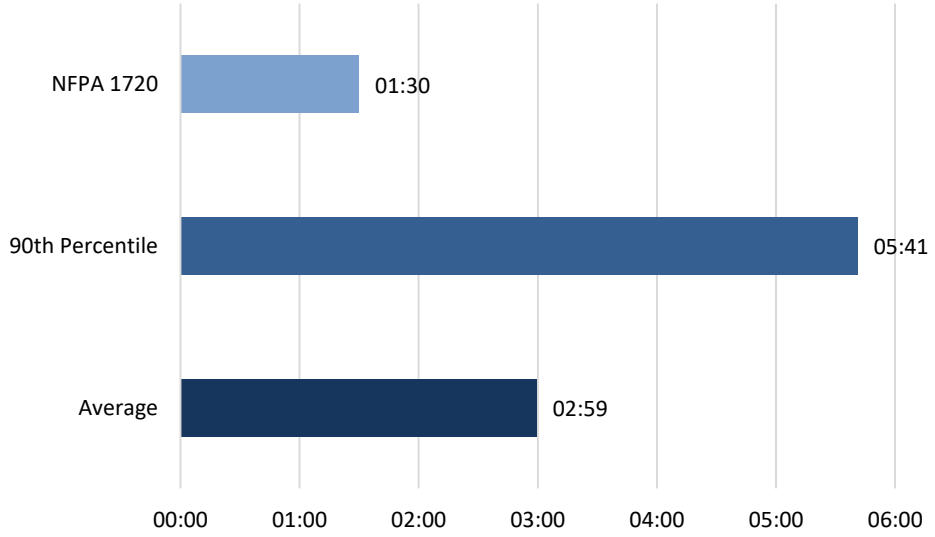
Figure 77: Call Processing Time at the 90th Percentile



NFPA 1221 requires that the dispatch center process fire and EMS calls within 64 seconds, 90 percent of the time. Current performance is approximately double that of the standard for MVFD; however, ESCI's experience is that many, if not most, dispatch centers struggle to meet NFPA 1221 goals and that a 90 second call processing time at the 90th percentile may be a more realistic goal to initially obtain.

Next, turnout time for MVFD is examined.

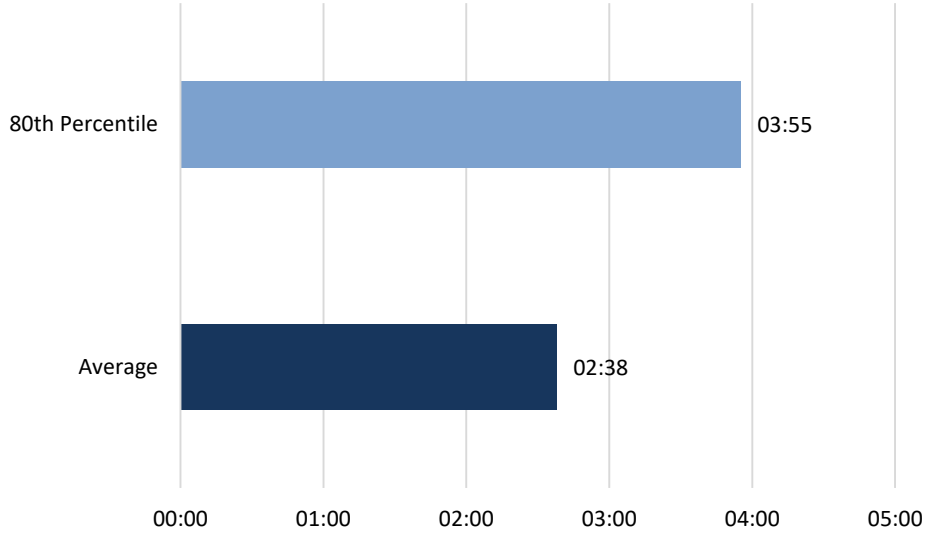
Figure 78: Turnout Time at the 90th Percentile



NFPA 1720 provides no requirements for turnout time for unstaffed volunteer organizations—this metric is provided for informational purposes only. However, this is an important metric as it is one of the few benchmarks that a fire department can control. In staffed combination departments, NFPA 1720 calls for a turnout time of 90 seconds at the 90th percentile. As none of these departments staff fire stations under normal conditions, benchmarking information is provided as a reference only.

The next figure provides travel time performance for MVFD.

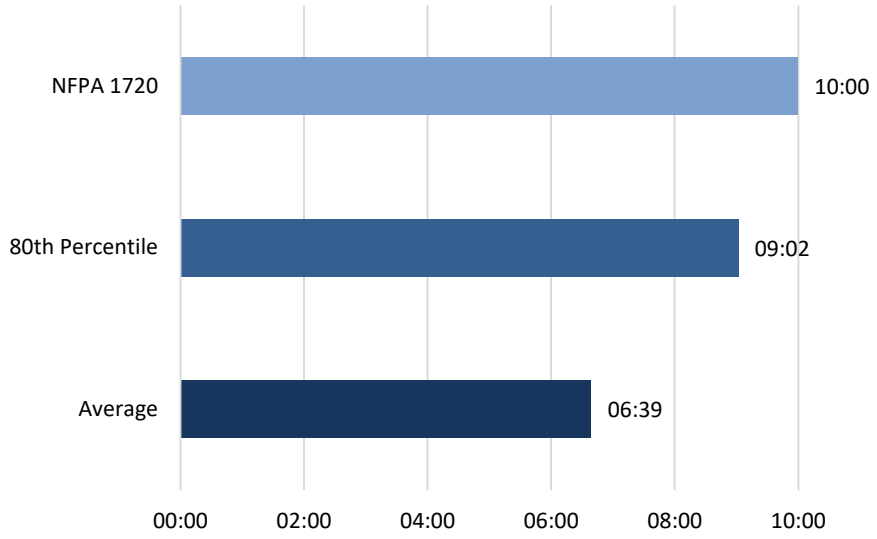
Figure 79: Travel Time Performance at the 80th Percentile



Like turnout performance, NFPA 1720 provides no specific requirements for travel times for volunteer and combination organizations; however, as these are constituent components of response performance with NFPA 1720 standards measured at the 80th percentile for suburban service areas, this metric was also isolated for detailed analysis. An important consideration when examining constituent components at their own fractile rate is that they cannot be added to one another to provide the total performance, for example, the turnout and travel performance at the 90th and 80th percentile respectively do not equal the response performance at the 80th percentile. This is due to several factors including differences in measurement, missing data, and differences in the datasets when conducting calculations. MVFD's travel performance at the 80th percentile was 3 minutes, 55 seconds at the 80th percentile for 2017.

Next, response performance for MVFD is analyzed.

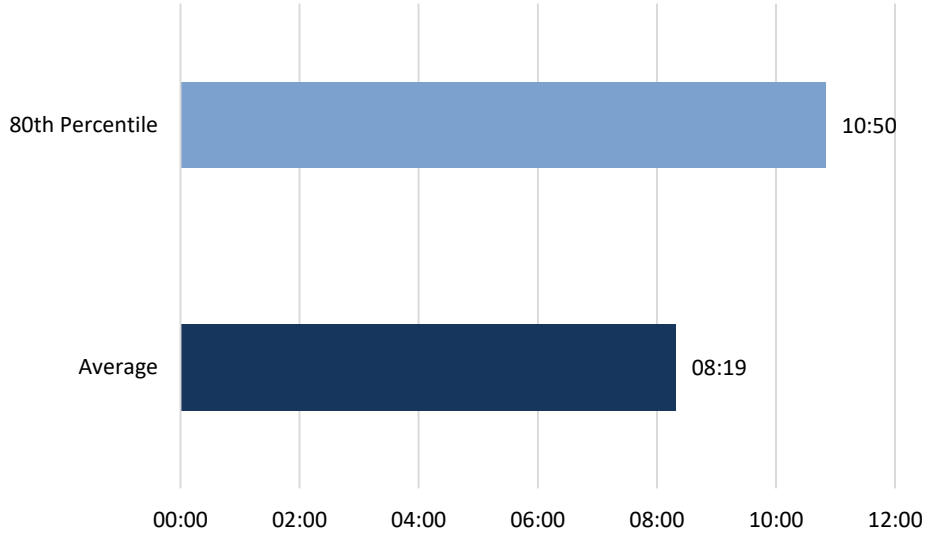
Figure 80: Response Performance at the 80th Percentile



NFPA 1720 requires that volunteer and combination fire departments serving suburban service areas can respond 10 firefighters to an incident scene within 10 minutes of initial notification 80 percent of the time. Although sufficient personnel data was not available at the time of the report to provide an accurate analysis of Monroe's staffing performance, response times for the first unit on scene were available and the results provided in the previous figure. At the 80th percentile, MVFD can provide a unit on scene within 9 minutes, 2 seconds from initial notification, nearly one minute below the national standard.

Finally, total response performance, or the amount of time from when the dispatch center receives the emergency call until the first unit arrives on scene is examined.

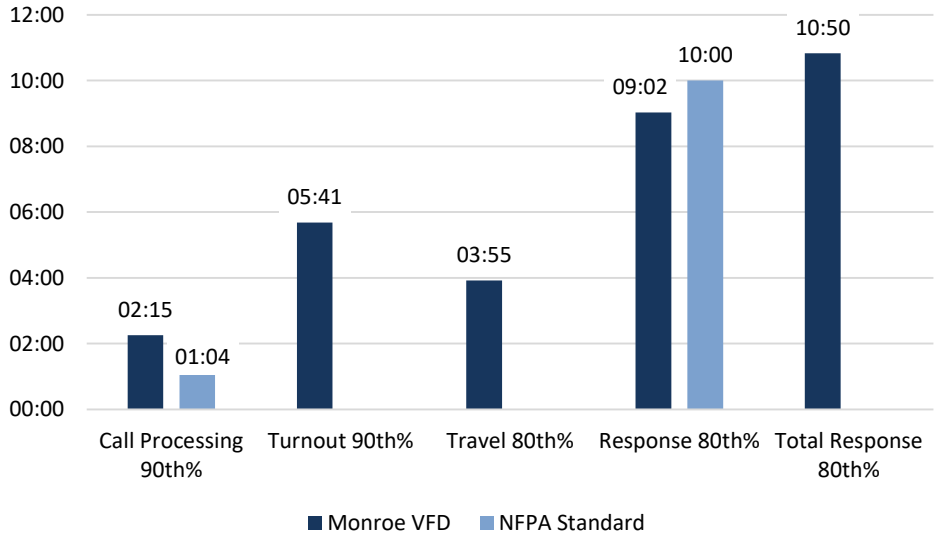
Figure 81: Total Response Performance at the 80th Percentile



NFPA 1720 provides no requirements for total response performance; however, this is another key indicator of whether the fire department can meet community expectations. This metric is provided at the 80th percentile meaning that citizens can expect MVFD to arrive to an emergency within 10 minutes, 50 seconds, 80 percent of the time or better.

Finally, a performance summary of these metrics is provided in the following figure.

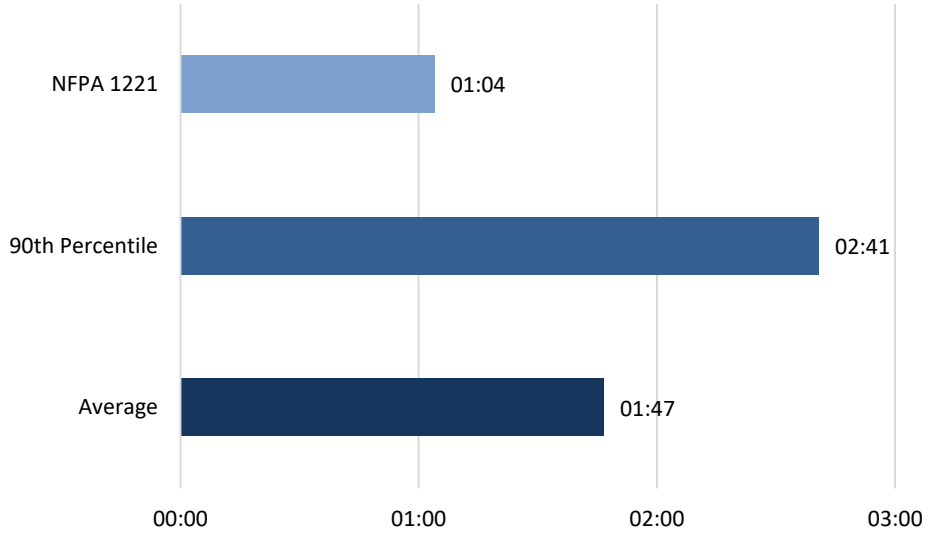
Figure 82: Performance Summary



Stepney Volunteer Fire Department

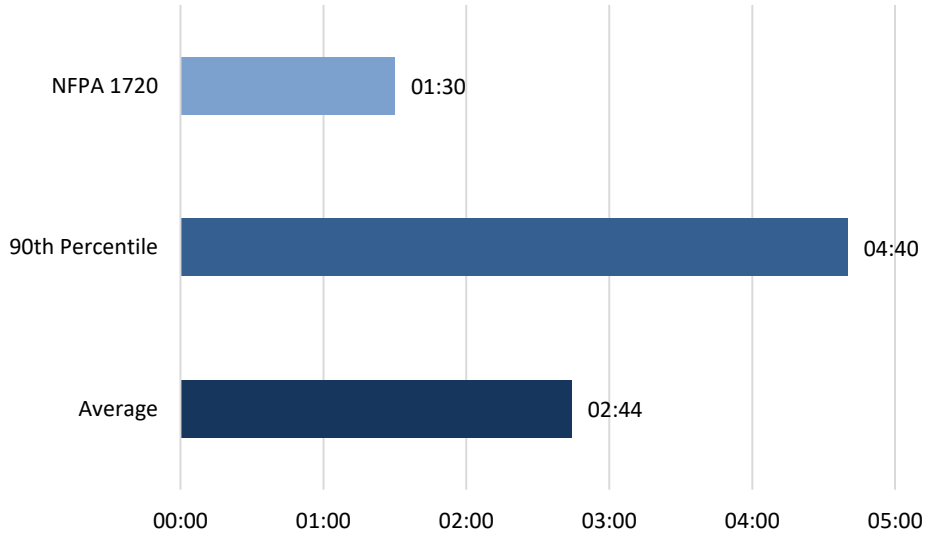
This section provides an analysis of Stepney Volunteer Fire Department. As specific details for each metric were discussed in the analysis of MVFD, only details pertaining to Stepney VFD will be addressed.

Figure 83: Call Processing Time at the 90th Percentile



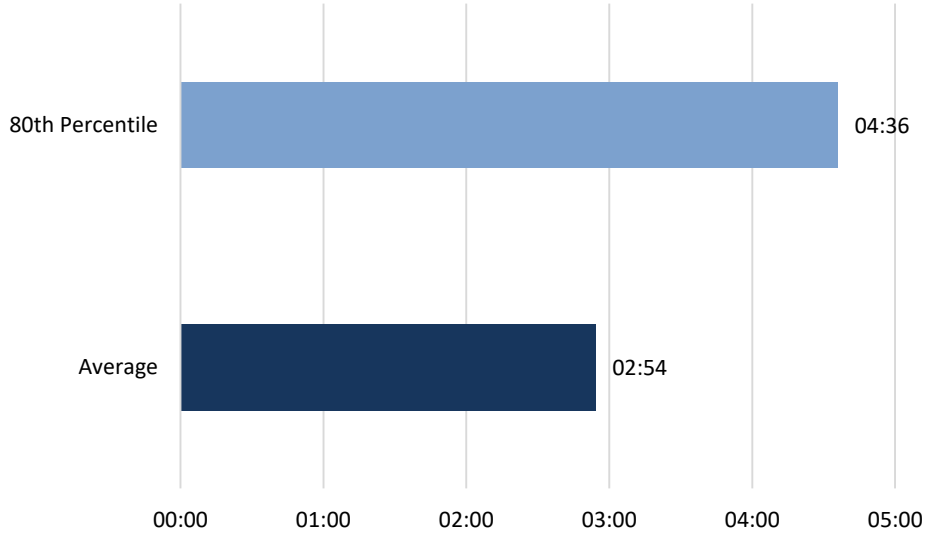
Call processing performance for Stepney VFD was 2 minutes, 41 seconds at the 90th percentile for 2017. As mentioned previously, the differences in call processing times for each of the three departments is most likely due to the size of the dataset evaluated relative to one another.

Figure 84: Turnout Time at the 90th Percentile



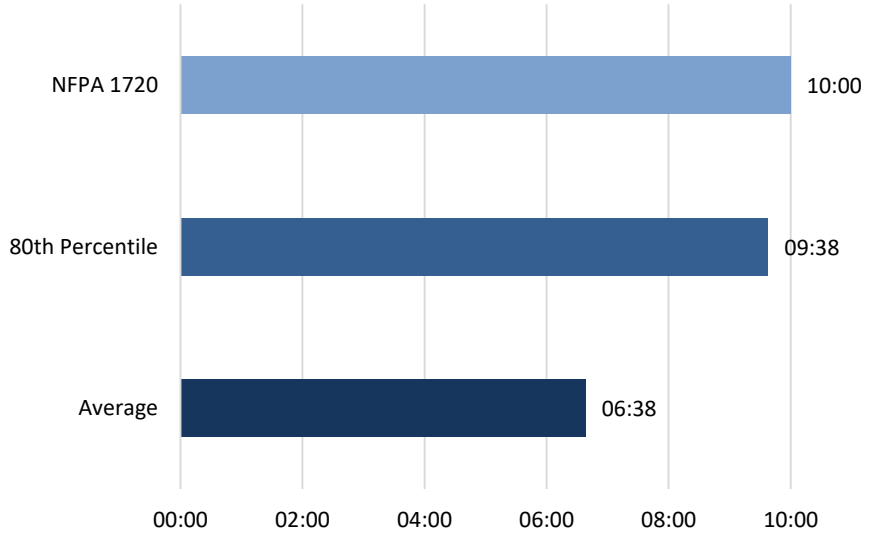
NFPA 1720 provides no turnout requirements for unstaffed volunteer departments; however, Stepney VFD displayed the quickest turnout time of the three departments at 4 minutes, 40 seconds at the 90th percentile.

Figure 85: Travel Performance at the 80th Percentile



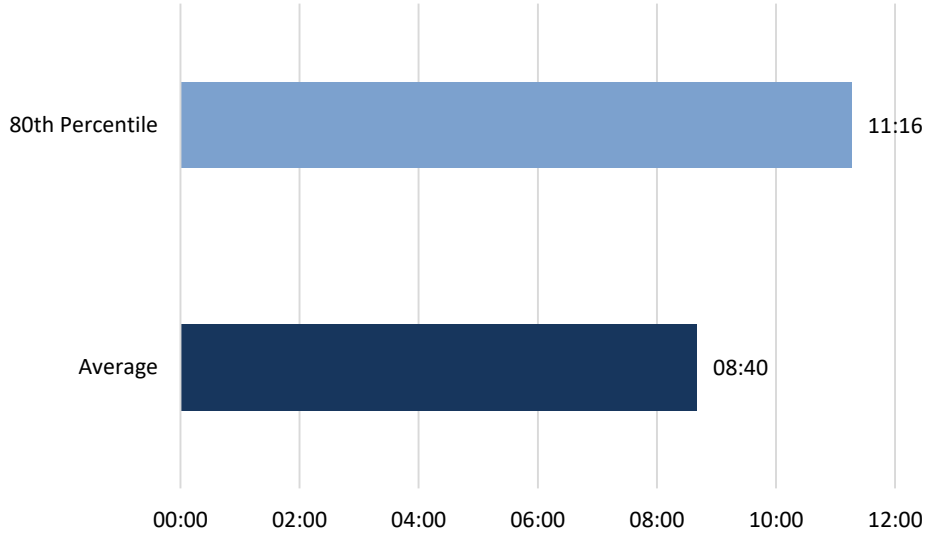
NFPA 1720 has no requirements for travel time for volunteer and combination organizations and this is presented for informational purposes as a constituent component of response performance. Stepney VFD's travel at the 80th percentile was 4 minutes, 36 seconds at the 80th percentile.

Figure 86: Response Performance at the 80th Percentile



NFPA 1720 requires that volunteer and combination fire departments serving suburban service areas can respond 10 firefighters to an incident scene within 10 minutes of initial notification, 80 percent of the time. Stepney VFD was able to provide a unit on scene of an emergency in 9 minutes, 38 seconds, 80 percent of the time for 2017.

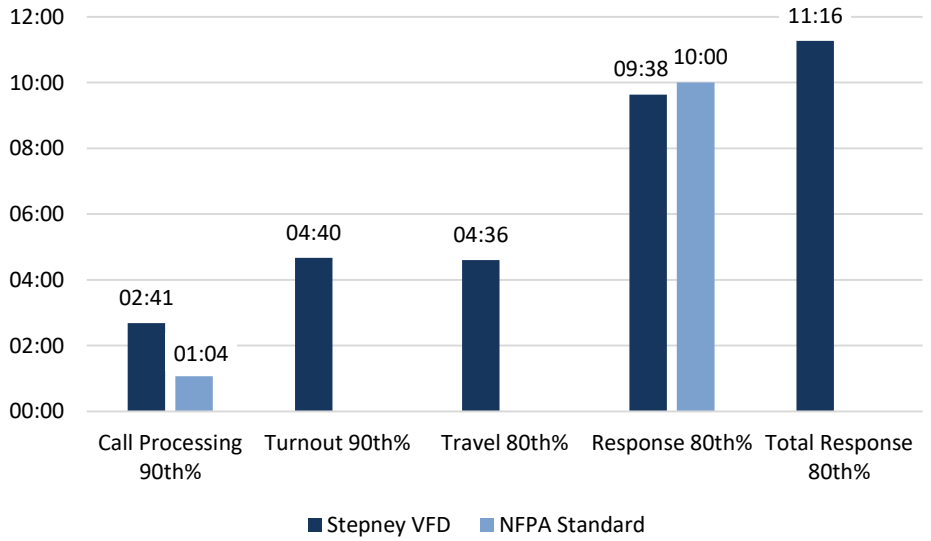
Figure 87: Total Response Performance at the 80th Percentile



NFPA 1720 provides no requirements for total response performance; however, this is another key indicator of whether the fire department can meet community expectations. This metric is provided at the 80th percentile meaning that citizens can expect Stepney VFD to arrive to an emergency within 11 minutes, 16 seconds, 80 percent of the time or better.

Finally, a performance summary of these metrics is provided in the following figure.

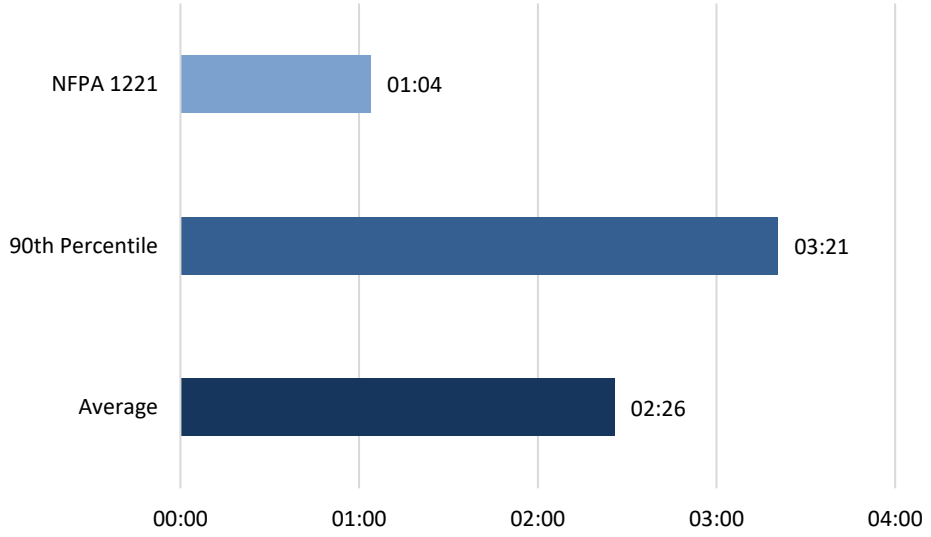
Figure 88: Performance Summary



Stevenson Volunteer Fire Department

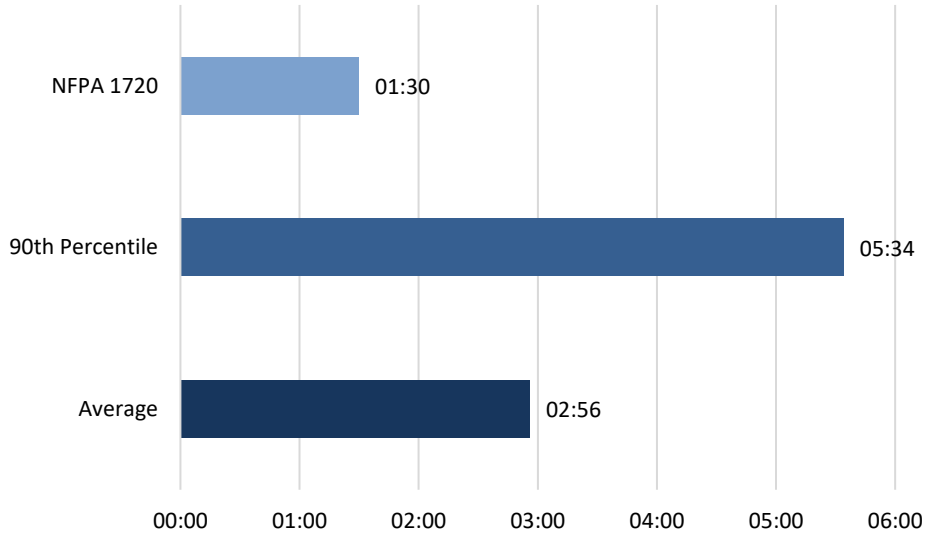
This section provides an analysis of Stevenson Volunteer Fire Department. As specific details for each metric were discussed in the analysis of MVFD, only details pertaining to Stevenson VFD will be addressed.

Figure 89: Call Processing Time at the 90th Percentile



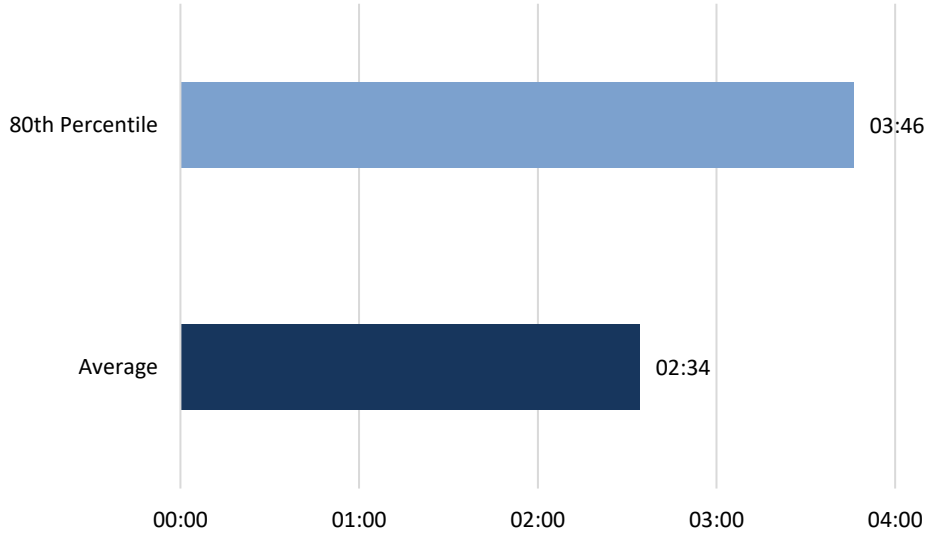
Call processing performance for Stevenson VFD was 3 minutes, 21 seconds at the 90th percentile for 2017. As mentioned previously, the differences in call processing times for each of the three departments is most likely due to the size of the dataset evaluated relative to one another.

Figure 90: Turnout Time at the 90th Percentile



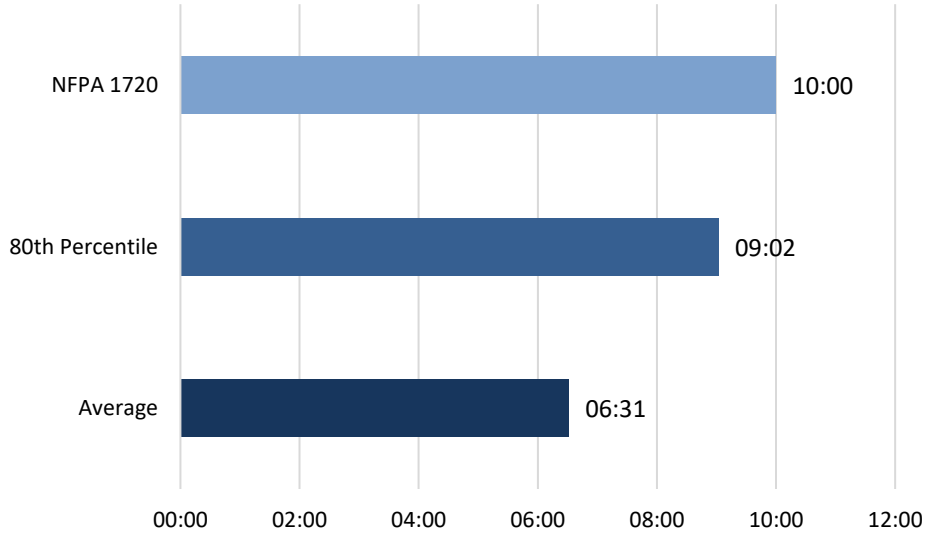
NFPA 1720 provides no turnout requirements for unstaffed volunteer departments; however, Stevenson VFD displayed a turnout performance of 5 minutes, 34 seconds at the 90th percentile.

Figure 91: Travel Performance at the 80th Percentile



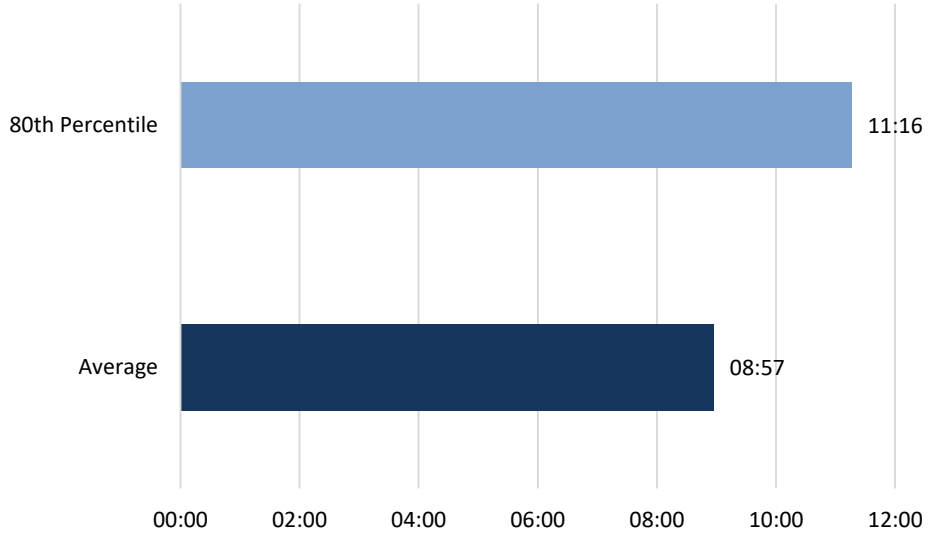
NFPA 1720 has no requirements for travel time for volunteer and combination organizations and this is presented for informational purposes as a constituent component of response performance. Stevenson VFD's travel at the 80th percentile was 3 minutes, 46 seconds at the 80th percentile.

Figure 92: Response Performance at the 80th Percentile



NFPA 1720 requires that volunteer and combination fire departments serving suburban service areas can respond 10 firefighters to an incident scene within 10 minutes of initial notification, 80 percent of the time. Stevenson VFD was able to provide a unit on scene of an emergency in 9 minutes, 2 seconds, 80 percent of the time for 2017.

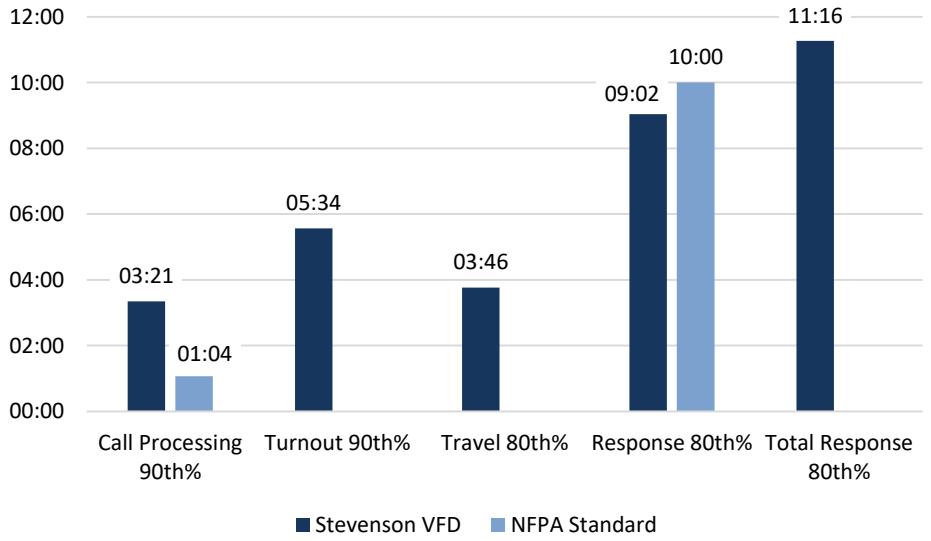
Figure 93: Total Response Performance at the 80th Percentile



NFPA 1720 provides no requirements for total response performance; however, this is another key indicator of whether the fire department can meet community expectations. This metric is provided at the 80th percentile meaning that citizens can expect Stevenson VFD to arrive to an emergency within 11 minutes, 16 seconds, 80 percent of the time or better.

Finally, a performance summary of these metrics is provided in the following figure.

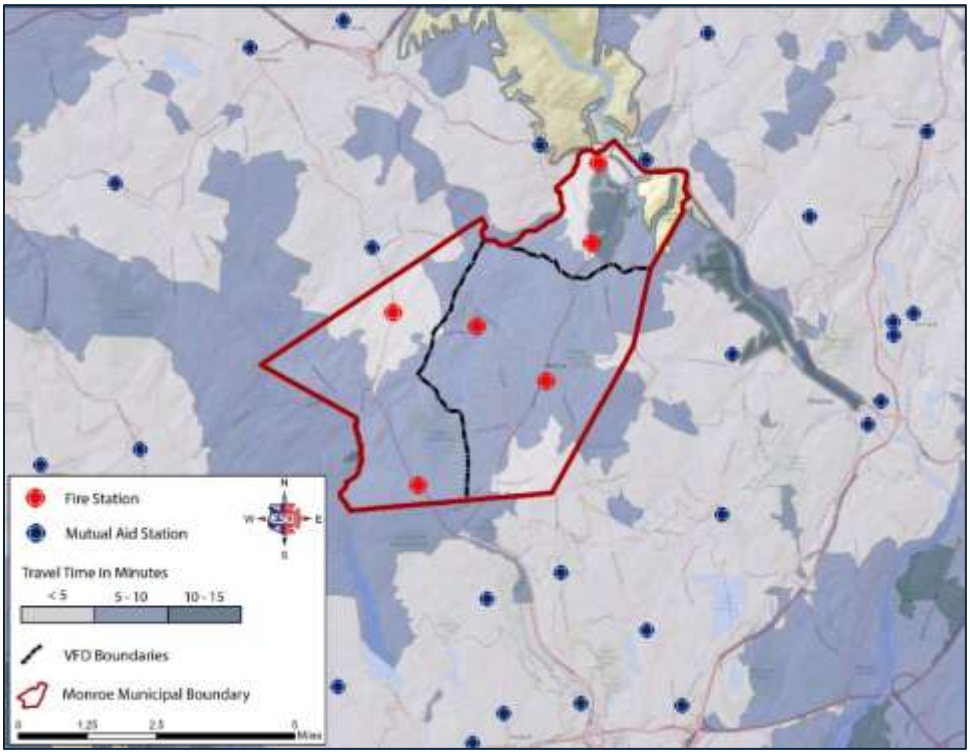
Figure 94: Performance Summary



Mutual and Automatic Aid Systems

Figure 95 provides an understanding of projected travel times of mutual aid partners to the Town of Monroe. As indicated, mutual aid partners can provide assistance to the Town of Monroe within a 10-minute travel time.

Figure 95: Monroe Mutual Aid Agencies—Projected Travel Time



ESCI utilized GIS software to project the travel time of the Town's mutual aid partners. This analysis is accomplished using the posted speed limits provided by the Town coupled with historic traffic patterning information provided by ESRI's Living Atlas. In this figure, only resources lying outside of Monroe's boundaries are displayed to provide an understanding of Monroe's mutual aid resources. Except for underdeveloped areas located in Stevenson, it is possible for mutual aid assistance to respond to nearly the all the Town in less than 10 minutes travel time. Of specific interest is the location of Botsford Fire Rescue, Sandy Hook Fire Rescue Company Station 2, and the Oxford Volunteer Fire Department on the immediate northern boundary of the Monroe response jurisdiction. These automatic aid companies allow for a significant support response to many of the incidents to which the departments respond. Botsford Fire Rescue and Stepney Station 2 are approximately 1.25 miles apart. The proximity of these two stations creates an inefficient coverage area and should be a point of consideration in any future station location planning. The same situation exists for Stevenson Station 1 where Sandy Hook Fire Rescue Company Station 2 and the Oxford Volunteer Fire Department are approximately 1.75 miles away. It is recommended the fire departments of Monroe work with all mutual aid/automatic aid agreements are current and properly executed.

Key Recommendations:

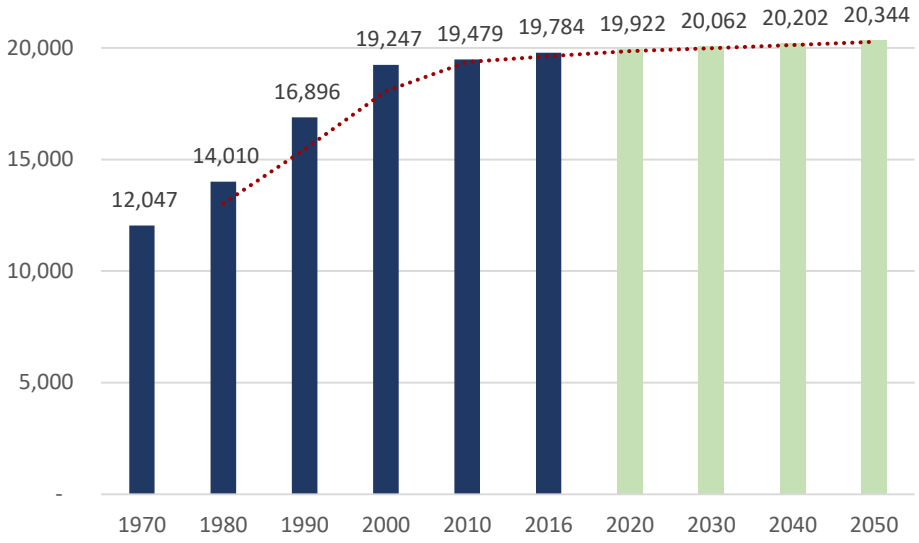
- Establish Fire Demand Zones as identified in NFPA 1720.
- Standardize the classification of incident types to ensure consistent incident data entry.
- Ensure all mutual aid/automatic aid agreements are current and properly executed.

Future System Demand Projections

Population History and Growth Projections

Figure 96 provides an understanding of the historical population growth of Monroe from 1970 to 2016, as well as a projection of population growth into 2050.

Figure 96: Monroe Population Change and Estimates, U.S Census Data, 2000–2016



From 1970 to 2000 the population of Monroe increased by approximately 59 percent. However, from 2000 to 2016 the growth has become almost non-existent. Understanding the population changes within the community is significant relative to understanding future service demands. One of the most common factors influencing service demand is the population of a community. As a result of this relatively flat population growth it is reasonable to expect the demand on service to remain relatively flat.

Service Demand Projections

In evaluating the deployment of facilities, resources, and staffing, it is imperative consideration be given to potential changes, such as population growth, that can directly affect emergency workload. Changes in service demand may require changes and adjustments in the deployment of staffing and capital assets in order to maintain acceptable levels of performance.

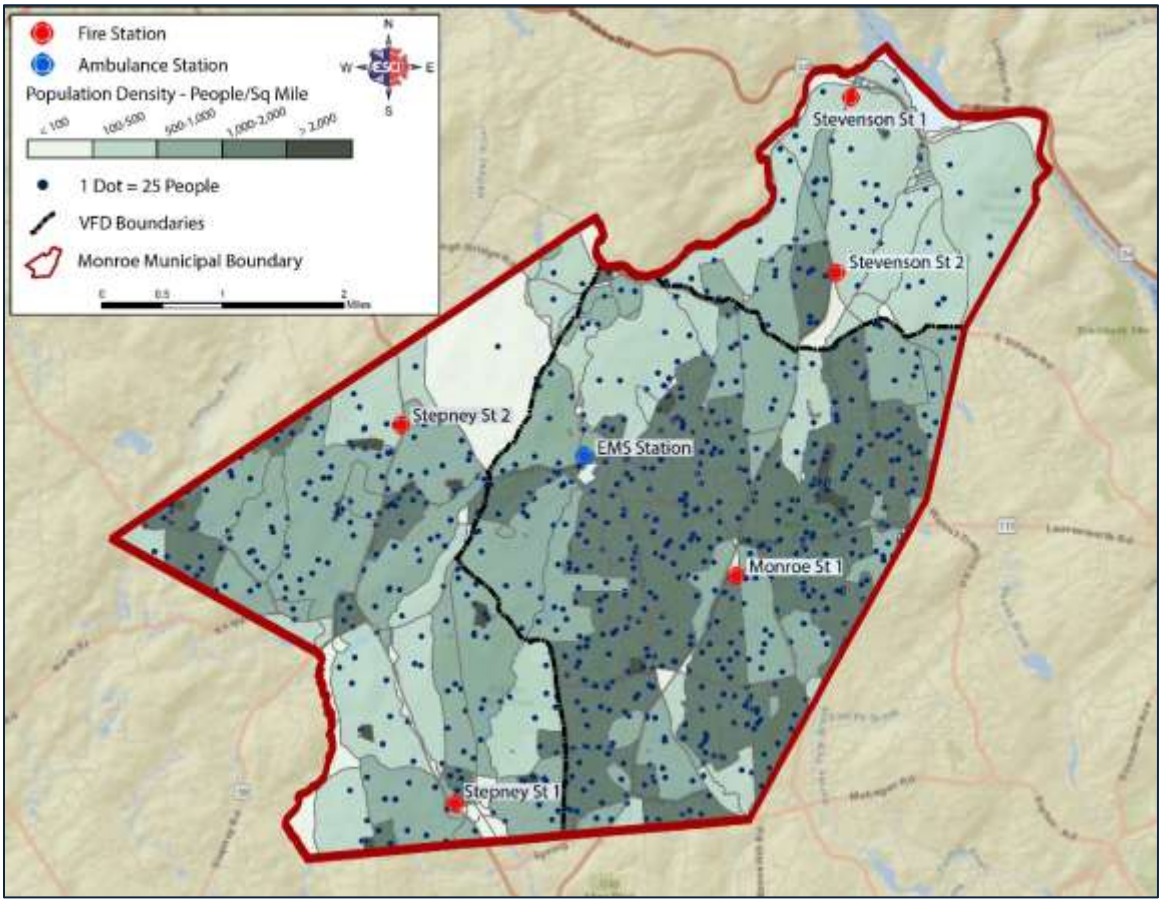
In order to construct a future service demand estimate, historical data for multiple years in needed to establish whether or not any trends are present and if a relationship between population and demand exists. ESCI received data from both the individual department's Records Management Systems (RMS) and from the communications center during the course of the study; however, only one year of data, 2017, was complete for the Town of Monroe from both sources. Because of this, forecasting for future trends was not possible.

Often, service demand trends can be characterized by changes in population and demographics. As Monroe's population is forecasted to remain stable for several years to come, service demand can probably be expected to remain fairly stable as well. Due to the relatively low number of calls for service generated within the Town of Monroe in 2017, 598 calls for service, and demand related to mutual aid requests, 25 mutual aid requests for a total of 623 calls, even a 10 percent increase in service demand would have minimal impact to the system as demand would still average less than two calls per day. However, the Town of Monroe should track annual call volume to determine whether changes in demographics over time have a positive or negative effect on service demand over time.

Community Risk Analysis

Community risk is assessed based on a number of factors: the service area population, population density, demographics of the population served, and local land use and development. In Figure 97, ESCI re-examines the population density map used earlier in the distribution study to display population density in the Monroe service area.

Figure 97: Monroe 2010 Census Block Population Density Map



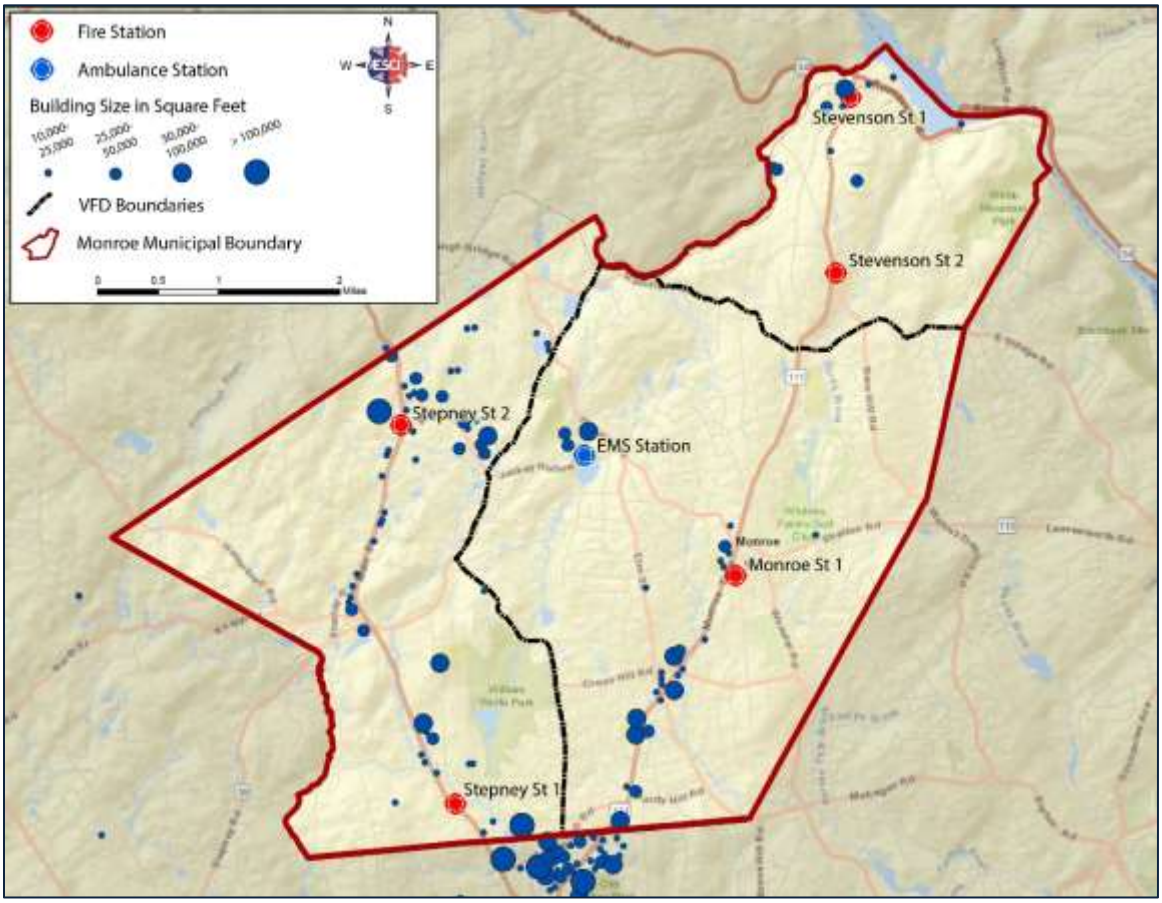
A review of the above figure provides an understanding that the majority of the Town's population resides with the response area of Monroe Volunteer Fire Department. As a rule, a fire department's call volume can be attributed to the amount of population within the jurisdiction. This fact is consistent with the incident data for the Monroe Volunteer Fire Department.

ESCI uses GIS software and current zoning classifications in the jurisdiction to examine current land use. Risk is assigned to the zoning classifications to present a view of relative community fire and life risk.

- **Low Risk**—Areas zoned and used for agricultural purposes, open space, low-density residential, and other low intensity uses.
- **Moderate Risk**—Areas zoned for medium-density single family properties, small commercial and office uses, low-intensity retail sales, and equivalently sized business activities.
- **High Risk**—Higher-intensity business districts, mixed use areas, high-density residential, industrial, warehousing, and large mercantile centers.

One of the most common risks facing a community is the size of commercials structures. Large buildings have the potential of exceeding the capabilities of a fire department in the event of a fire. Figure 98 provides an understanding of community's risk associated with large buildings using the criteria listed above.

Figure 98: Risk by Building Square Footage



Additional risk assessments typically include nursing homes, health care facilities, hazardous materials storage locations, and emergency shelters. The current method utilized for classification of these types of facilities. It is recommended that the Town of Monroe implement of formal community risk reduction program in accordance with the soon to be released NFPA 1300: Standard on Community Risk Assessment and Community Risk Reduction Plan Development.

Additionally, the Town of Monroe should ensure an appropriate number of individuals are trained to NFPA 1452: Guide for Training Fire Service Personnel to Conduct Community Risk Reduction. Given the diverse level of responsibilities and workload assigned to the Town's personnel and firefighters, should the Town desire to implement a more robust community risk reduction model, additional personnel may be necessary.

Key Recommendations:

- Implement a formal community risk reduction program in accordance NFPA 1300.
- Ensure the Town of Monroe has an appropriate number of individuals trained in accordance with NFPA 1452.

FUTURE DELIVERY SYSTEM MODELS

Although the preceding sections of this report focused primarily on the conditions that currently exist within the Monroe service area, the intent of this study is to combine that evaluation with a look into the future and provide policy makers with information necessary to carry the system forward over the next 10 to 20 years. This portion of the report provides comments and recommendations related to the deployment of facilities, apparatus, and personnel with a focus on future service delivery and an improvement in overall efficiency within the system.

Development of Response Standards and Targets

ESCI emphasizes the importance of establishing response performance metrics by the Monroe fire departments. Once implemented, these standards establish measurable goals for service delivery, which then form the foundation upon which planning for deployment of resources is based. Absent these processes, the organization is not able to determine where it needs to go, nor is it able to know when it is achieving its goals and meeting the community's expectations.

Response standards have to be developed by each individual community, based on the expectations of elected officials and citizens balanced against the financial realities of what a community is able and willing to afford. For this reason, ESCI cannot establish these standards for Monroe but rather will provide guidance and examples of what we consider to be acceptable metrics.

In the design of an operational structure for a fire department, interested parties attempt to identify some standard or "rule" that establishes staffing levels within a fire department. However, the reality is no single staffing standard exists within the United States that mandates staffing levels of a fire department. There are however NFPA standards addressing the number of firefighters that should be on-scene to accomplish specific tasks safely and effectively. These standards are known as NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, and 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, and apply to either career organizations or volunteer organizations respectively. It is important to reiterate that these standards are not mandatory, but the reality is that not adhering to these standards will have implications should a significant event occur and staffing levels be called into question. Many fire departments in the United States recognize the NFPA standards as being the "consensus standard," as they are developed through the experiences of other fire departments, and industry experts, who have gone through various response, safety, and staffing challenges.

Critical Tasks, Risk, and Staffing Performance

The ultimate goal of any emergency service delivery system is to provide sufficient resources (personnel, apparatus, and equipment) to the scene of an emergency in time to take effective action to minimize the impacts of the emergency. This need applies to fires, medical emergencies, and any other emergency situation to which the fire department responds.

As the actual, or potential, risk increases for any particular emergency, the need for additional numbers of personnel and apparatus also increases. With each type of incident and corresponding risk, specific critical tasks need to be accomplished.

The fire service assesses the relative risk of properties and occurrences based on a number of factors. Properties with high fire risk often require greater numbers of personnel and apparatus to effectively mitigate the fire emergency. Staffing and deployment decisions should be made with consideration of the level of risk involved.

The Center for Public Safety Excellence (CPSE) has a sample critical tasking analysis for the number of personnel required on scene for various levels of risk. This information is shown in the following figure, illustrating an example of critical tasking only and is not intended to conclusively define the actual personnel necessary based on risk.

Figure 99: Sample of Critical Task Staffing by Risk[12]

Firefighter Personnel Needed Based On Level of Risk				
	Structural Maximum Risk	**Structure Significant Risk**	**Structure Moderate Risk**	**Non-Structure Low Risk**
Attack line	4	4	2	2
Back-up line	4	2	2	(2)
Support for hose lines	4	3	2	
Search and rescue	4	4	2	
Ventilation	4	2	2	
Rapid intervention team	4	4	2	
Pump Operator	2	1	1	1
2nd apparatus/ladder operator	1	1	(1)	
Command	2	1	1	1#
Safety	2	1	1#	
Salvage	4			
Rehabilitation	2			
Division/group supervisors	(2)			
Total	**37–39**	**23**	**14–16**	**3–6**

() indicates tasks may not be required at all such incidents
 # indicates task may, at times, be completed concurrently with other position

The first 15 minutes is the most crucial period in the suppression of a fire. How effectively and efficiently firefighters perform during this period has a significant impact on the overall outcome of the event. This general concept is applicable to all emergencies.

Critical tasks must be conducted in a timely manner to control a fire or to treat a patient. Three scenarios of commonly encountered emergencies are routinely utilized by fire departments when conducting field validation and critical tasking: a moderate risk structure fire, a traffic collision with a trapped victim, and a cardiac arrest. Each scenario is conducted using standard operating procedures and realistic response times based on actual system performance. Each scenario is normally run multiple times with a variety of fire companies to validate and verify observations and times.

[12] Based on examples provided in the publication "Creating and Evaluating Standards of Response Coverage for Fire Departments," 4th edition; Commission on Fire Accreditation International, Inc. (now Center for Public Safety Excellence).

To further validate the analysis process, results are compared with records from actual working fires and similar incidents from previous years. Overall results are reviewed to determine if the actions taken within the early minutes of an incident resulted in a stop loss or not and if additional resources were required. The critical task analysis process demonstrates the rate in which the current deployment plan results in stopping loss, a high percentage of time within initial critical time goals.

Again, critical tasks are those activities that must be conducted in a timely manner by firefighters at emergency incidents in order to control the situation, stop loss, and to perform necessary tasks required for a medical emergency. Monroe is responsible for assuring that responding companies are capable of performing all of the described tasks in a prompt, efficient, and safe manner.

All Risk Critical Resource Tasking

Fire departments respond to many incidents other than structure fires, including hazardous materials (dangerous goods) releases, motor vehicle collisions, basic and advanced life support medical emergencies, and non-structural fires. Personnel responding to these types of incidents should be assigned tasks similar to structure fires.

The following figures are provided as an example for these types of incidents, although ESCI recommends Monroe conduct its own field validation exercises with its crews, including automatic aid resources, to verify the critical tasking analysis provided. After field validation is complete, Monroe may find that the critical tasking can be adjusted appropriately upward or downward for each incident type.

Figure 100: Sample Non-Structure Fire Critical Tasking

Task	Personnel
Command	1
Pump Operator	1
Primary Attack Line	2
Total	**4**

Figure 101: Sample Hazardous Materials Incident Critical Tasking

Task	Personnel
Command	1
Pump Operator	1
Primary Attack Line	2
Back-Up Line	2
Support Personnel	7
Total	**13**

Figure 102: Sample Motor Vehicle Collision with Entrapment Critical Tasking

Task	Personnel
Command	1
Pump Operator	1
Primary Attack Line	2
Extrication	3
Patient Care	2
Total	**9**

Figure 103: Sample Emergency Medical Incident Critical Tasking

Task	Personnel
Command	1
Patient Care	2
Total	**3**

The previously mentioned minimum staffing criteria can be used as a planning tool in setting specific service level objectives for each of the incident types.

Response Time Performance Objectives

The process of setting response time performance objectives will include two primary questions:

- What are the expectations of the community and elected officials regarding initial response times of the fire department to an emergency incident? What is the public's perception of quality emergency services where response time is concerned?
- What response time performance would be reasonable and effective in containing fire, stopping the loss, and saving lives when considering the common types of incidents and fire risks faced by the Monroe fire departments?

To initiate the process of considering the expectations of the customer, the historical travel time and loss history needs to be examined from the data that was submitted by Monroe. Then, historical service levels are compared to known and anticipated service demand and community growth projections. Considering these projections, suggested response time standards are created to ensure Monroe is meeting local service demand expectations in accordance with relevant industry standards and best practices.

The first example is the "first due" response of a single unit utilizing standard reflex time from dispatch to arrival 80 to 90 percent of the time based upon the demand zone type:

Figure 104: First Due Response Standard Example

First Due, Single Unit Response	
Urban (>1,000 per square mile)	9 minutes to 90 percent of incidents
Suburban (500–1,000 per square mile)	10 minutes to 80 percent of incidents
Rural (<500 per square mile)	14 minutes to 80 percent of incidents

The next example represents a first alarm response to a moderate risk structure fire, utilizing standard reflex time from dispatch to arrival 90 percent of the time:

Figure 105: First Alarm Response Standard Example

First Alarm, Response of 3 Engines, 1 Truck, and 1 Battalion Chief	
Urban (>1,000 per square mile)	11 minutes to 90 percent of incidents
Suburban (500–1,000 per square mile)	19 minutes to 90 percent of incidents
Rural (<500 per square mile)	23 minutes to 90 percent of incidents

This discussion provides the Town of Monroe with the information necessary to begin the process of establishing response standards and targets. Currently, the Monroe fire departments track response performance solely upon each station's "district" and does not evaluate response based upon a demand zone type. ESCI recommends that Monroe leadership to begin the process of establishing demand zones as soon as possible in order to assist with future planning needs. After reviewing the historical response performance of the three fire departments, ESCI recommends the following performance standards as a starting point:

Recommended Response Time Performance Standards

- **Call Process Time**—Fractal call processing time benchmark should be 1 minute, 30 seconds (1:30) or less, 90 percent of the time.
- **Turnout Time**—Fractal turnout time benchmark for all emergency incidents should be 5 minutes (5:00) or less, 80 percent of the time.
- **Travel Time**—Fractal travel time benchmark for all emergency incidents should be 6 minutes (6:00) or less, 90 percent of the time.
- **Total Response Time**—Fractal response time for total response time benchmark for all emergency incidents should be 11 minutes (11:00) or less, 80 percent of the time.

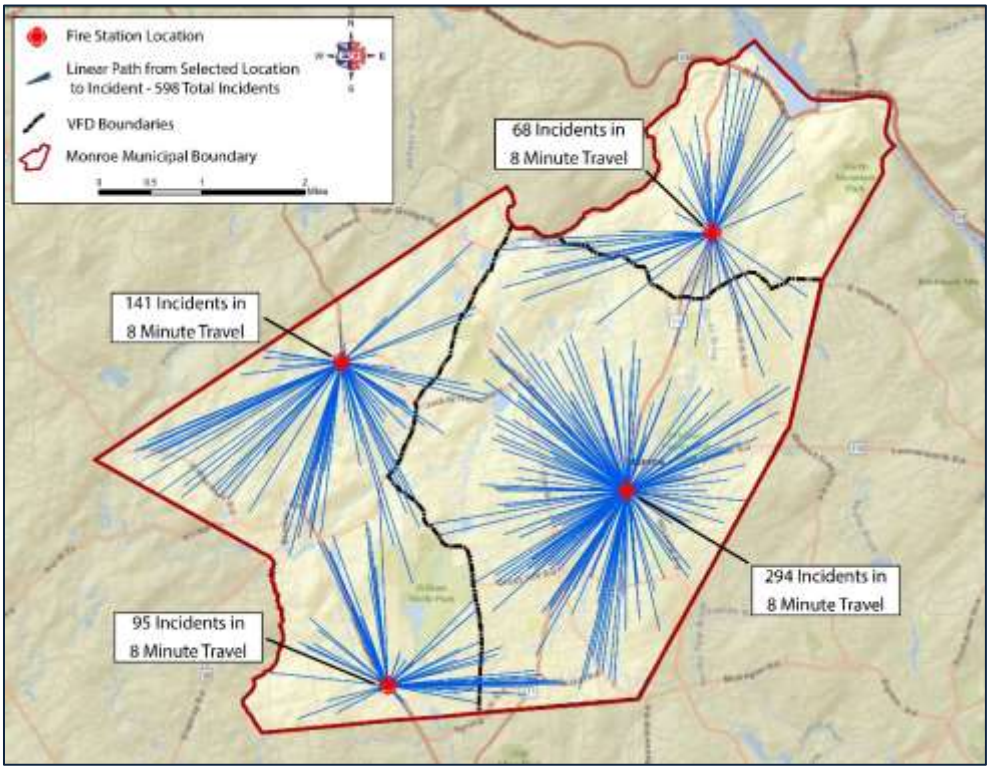
Deployment Coverage Analysis

Consideration has been given to the location of the existing stations and potential need for relocation of an existing station(s). ESCI analyzed the response coverage for a six-minute response from the existing stations, and an analysis of where the best location might be with a mix of existing stations and relocated stations. The completed analysis is discussed in this section. The following figures show the four-minute coverage of the Town. This is a computer predictive analysis based on achieving roadway speeds. Further, using the location data of incidents from the previous two years, ESCI calculated the percentage of the incidents the departments could have reached with a four-minute travel time.

These maps are produced at posted roadway speeds. Slowing for a number of turns can cause the computer prediction to be more optimistic than actual performance. If the departments' safety policies require slowing at all intersections or stopping for red lights, this will cause the actual results to be slower. Also, the use of traffic control systems for emergency response will cause the predicted to be closer to the actual performance. Therefore, ESCI recommends that Monroe does its own analysis to verify how travel times differ for actual driving while complying with all safety policies. Additionally, there are other situations that may affect the accuracy of the predictions that do not occur on a regular frequency such as auto accidents, weather caused issues, or construction zones.

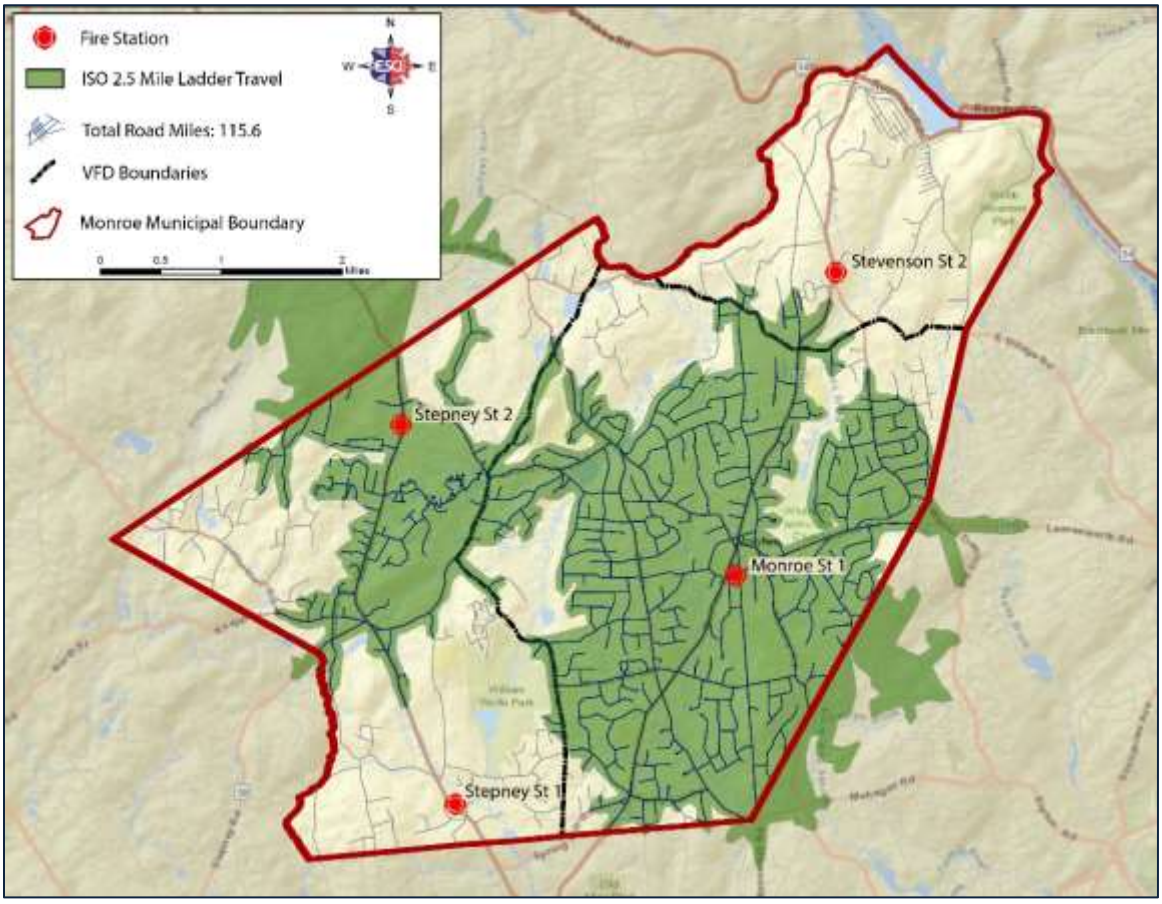
Following a review of the existing incident activity of the collective fire departments, ESCI recommends the Town of Monroe implement a four-station response model. Figure 106 provides an understanding of the area each fire station can be reasonably expected to cover with an eight-minute drive time. This figure also includes the number of incidents each station can reach with an eight-minute drive time. For the purposes of this study, ESCI utilized actual incidents experienced by the three fire departments in 2017.

Figure 106: Four Station Recommendation



ESCI recommends the relocation of Monroe Volunteer Fire Department's aerial to Monroe Fire Station 1. Figure 107 provides an understanding of the increased coverage area realized with the movement of the aerial to MVFD Station 1.

Figure 107: Relocation of MVFD Aerial to Monroe Station 1



Key Recommendations:

- Implement a four-station response model.
- Relocate Monroe Volunteer Fire Department's aerial to Monroe Fire Station 1
- Establish effective response force levels and monitor performance per NFPA 1720.

COST PROJECTIONS

ESCI has been tasked with developing various service delivery options for consideration of the Town of Monroe and its three volunteer fire companies but with maintaining the current type of service delivery system.

Utilizing information contained in the historical budget presentations, ESCI has been able to develop alternatives for providing services through the Town's three volunteer fire departments. Additionally, recommendations may, through the economies of scale purchasing, save tax dollars and maintain or possibly improve the delivery of services to the community.

Status Quo Alternative

The cost of providing emergency response services to the community will not diminish during the five-year projection period. It is anticipated that normal operating costs of each department will increase by 2 percent annually. Using this assumption, costs to the Town of Monroe to maintain the current level of service provided by its three volunteer fire departments will increase a modest amount. The following figure provides a projection of the application of the 2 percent annual escalation using the 18/19 budget as the base amount.

	FYE June 30					
	18/19	19/20	20/21	21/22	22/23	23/24
Monroe FD	$ 266,214	$ 271,538	$ 276,969	$ 282,508	$ 288,159	$ 293,922
Stevenson FD	187,448	191,197	195,021	198,921	202,900	206,958
Stepney FD	258,232	263,397	268,665	274,038	279,519	285,109
Volunteer fire department funding	**$ 711,894**	**$ 726,132**	**$ 740,655**	**$ 755,468**	**$ 770,577**	**$ 785,988**

Proposed Cost Savings Initiatives

Each of the following recommendations are based on historical experience in the combining of entities and agencies into a more cost-effective operating unit. Typically, purchases of larger quantities of commodities and services yield savings.

Combining VFD Utility Service Contracts with Town Utility Contracts

ESCI recommends combining the utility services of the fire stations owned by the three volunteer fire departments into a master contract and combining them under the same utility purchase contract as the Town's utility contract. ESCI cannot quantify the potential savings from this recommendation.

Add the VFD Buildings to the Town's Insurance Program (Possibly Transfer Ownership to the Town)

The Town's inventory of owned structures would allow it, should a decision be made to transfer ownership of volunteer fire stations to the Town, to add the three fire department-owned facilities to its property insurance coverage for a price much less than the three independent volunteer fire departments can obtain on an individual basis. Maintenance and operating costs of these stations may be reduced through inclusion in the Town's facilities maintenance programs. Again, ESCI cannot quantify the potential savings associated with this recommendation.

Combine the Three VFD's Technology Programs Under One Contract (Town Contract)

Each of the three volunteer fire departments have recently transitioned to a common records management system. ESCI recommends consolidating this technology into one system under the Town's technology contracts. This recommendation could produce savings that cannot be quantified for this projection.

Consolidation of Administrative Costs

Each of the three volunteer fire departments expends a significant portion of their requested funding on administrative costs to maintain offices. These costs, ranging from approximately 5 to 10 percent, may be consolidated under one department or absorbed by the Town's administrative staffs or create a single position within the Town's administrative structure to handle the workload.

STRATEGIC INITIATIVES

Strategy 1: Governance and Administration			
Goal 1.1—Exercise responsibility for the quality of Monroe fire services through an organized system of planning, staffing, directing, coordinating, budgeting, and evaluation.			
Objective 1.1.1—Keep the Monroe Town Council informed on all matters of significance by attending regular meetings, reporting significant events, and presenting evidence-based data that will assist the Council with policy level decisions.			
Timeframe	Ongoing	Assigned to	Fire Chiefs
Objective 1.1.2—Comply with the legal requirements of local, state, and federal governments within specified due dates 100 percent of the time.			
Timeframe	Ongoing	Assigned to	Fire Chiefs
Objective 1.1.3—Establish a written performance-based contract between all parties to clarify expectations and responsibilities of all parties.			
Timeframe	Ongoing	Assigned to	First Selectman and Fire Chiefs
Objective 1 1.4—Establish a single "administrative" structure to facilitate business operations between the Town and the three fire departments.			
Timeframe	January 2019	Assigned to	First Selectman and Fire Chiefs
Objective 1.1 5—Establish a common organizational structure to reduce the likelihood of confusion during emergency scene operation.			
Timeframe	January 2019	Assigned to	Fire Chiefs
Objective 1.1.6—Develop and implement standardized response plans.			
Timeframe	January 2019	Assigned to	Fire Chiefs
Objective 1.1.7—Standardize all management processes and documents to ensure consistency in the operations of the three fire departments.			
Timeframe	March 2019	Assigned to	Fire Chiefs
Goal 1.2—Communicate and deploy fire department values, performance expectations, to ensure value for the citizens of Monroe.			
Objective 1.2.1—Review annually, update as needed, and publish all fire department policies to ensure accuracy and effectiveness.			
Timeframe	Ongoing	Assigned to	Fire Chiefs
Objective 1.2.2—Continue to develop common operational procedures.			
Timeframe	Ongoing	Assigned to	Fire Chiefs
Goal 1.3—Maintain relationships that demonstrate public responsibility and good citizenship that will help anticipate public concerns related to the services and operations of the Town's fire departments.			
Objective 1.3.1—Identify and participate in, or support, community programs and/or associations that are aligned with the mission of the fire departments.			
Timeframe	Ongoing	Assigned to	Fire Chiefs
Goal 1.4—Provide leadership that projects a culture of continuous evaluation and improvement.			
Objective 1.4.1—Establish an Officer Development program that provides administrative and soft skill (i.e., leadership, communication, and conflict resolution) training needed for personnel development and succession planning.			
Timeframe	December 2019	Assigned to	Fire Chiefs
Objective 1.4.2—Establish a common set of written procedures to standardize the entry and recording of incident data.			
Timeframe	March 2019	Assigned to	Fire Chiefs
Objective 1.4.3—Conduct a comprehensive analysis of "false calls" classification of incident response data.			
Timeframe	February 2019	Assigned to	Fire Chiefs

Strategy 1: Governance and Administration			
Objective 1.4.4—Standardize the definition of mutual aid/auto aid when responding in support of each other inside the Town.			
Timeframe	February 2019	Assigned to	Fire Chiefs
Objective 1.4.5—Standardize process for ensuring all fire loss data is recorded properly.			
Timeframe	March 2019	Assigned to	Fire Marshal
Objective 1.4.6—Establish service demand zones to allow for a more detailed analysis of station workloads			
Timeframe	January 2020	Assigned to	Fire Chiefs
Objective 1.4.7—Participate in regional disaster planning activities.			
Timeframe	Ongoing	Assigned to	Fire Chiefs
Objective 1.4.8—Establish response time goals for the entire jurisdiction by incident type.			
Timeframe	September 2019	Assigned to	Fire Chiefs
Objective 1.4.9—Collect accurate and complete response time data for all units assigned to an incident.			
Timeframe	Ongoing	Assigned to	Fire Chiefs
Objective 1.4.10—Monitor the Effective Response Force (ERF) achieved on all structure fire calls per demand zones as identified in NFPA 1720.			
Timeframe	Ongoing	Assigned to	Fire Chiefs
Objective 1.4.11—Continue the transition to the common records management system to allow for effective data collection and analysis.			
Timeframe	September 2019	Assigned to	Fire Chiefs
Objective 1.4.12—Utilize Town Fire Marshal to conduct quality assurance of all “fire” reports.			
Timeframe	Ongoing	Assigned to	Fire Marshal

Strategy 2: Assessment and Planning			
Goal 2.1—Identify the community’s emergency service needs and establish strategies, goals and objectives, standards of response coverage, and key performance indicators of quality.			
Objective 2.1.1—Utilize a pre-fire planning process to analyze service area/population density for the purpose of developing total response time standards.			
Timeframe	December 2019	Assigned to	Fire Chiefs
Objective 2.1.2—Conduct an annual risk assessment to define the balance between emergency response capabilities and risks (fire and non-fire) and then address any imbalances in the planning process.			
Timeframe	January 2020	Assigned to	Fire Chiefs
Goal 2.2—Implement processes to ensure relevant data and information is collected and analyzed to ensure that customer needs/expectations are met.			
Objective 2.2.1—Share and publish strategic goals and progress to internal and external stakeholders while encouraging accountability and transparency.			
Timeframe	September 2019	Assigned to	Fire Chiefs

Strategy 3: Goals and Objectives			
Goal 3.1—Establish an Annual Action Plan to implement short-range goals and tasks that are consistent with the Strategic Plan.			
Objective 3.1.1—Evaluate, and modify if necessary, the goals and objectives of the departments to ensure currency and consistency with the Mission, Vision, and Strategic Plan of the Town and fire departments.			
Timeframe	January 2020	Assigned to	Fire Chiefs
Objective 3.1.2—Develop and implement an ongoing strategic planning process that includes members of the three fire departments and Town.			
Timeframe	January 2020	Assigned to	Fire Chiefs

Strategy 4: Financial Resources			
Goal 4.1—Develop and implement a Capital Improvement Plan based on current and anticipated programs, services, and revenues.			
Objective 4.1.1—Plan for new additional capital assets required to meet the demands of the Town of Monroe.			
Timeframe	January 2020	Assigned to	Fire Chiefs and First Selectman
Objective 4.1.2—Develop and implement a common budget to support the financial support of the three fire departments.			
Timeframe	July 2019	Assigned to	Fire Chiefs and First Selectman

Strategy 5: Programs			
Goal 5.1—Provide services and responses that meet quality baselines that meet or exceed national benchmarks.			
Objective 5.1.1—Meet all deployment objectives with 80 to 90 percent reliability for all types of emergency incidents, as outlined in NFPA 1720 based upon population.			
Timeframe	Ongoing	Assigned to	Fire Chiefs
Objective 5.1.2—Establish “demand zones” based upon population demographics identified in NFPA 1720.			
Timeframe	January 2020	Assigned to	Fire Chiefs
Goal 5.2—Develop a community risk reduction program.			
Objective 5.2.1—Implement formal community risk reduction program in accordance with the nations Vision 20/20 Community Risk Reduction Program.			
Timeframe	January 2020	Assigned to	Fire Marshal
Objective 5.2.2—Ensure an appropriate number of individuals are trained to NFPA 1452: Guide for Training Fire Service Personnel to Conduct Community Risk Reduction.			
Timeframe	July 2020	Assigned to	Fire Chiefs and Fire Marshal
Objective 5.2.3—Implement a formal pre-fire plan process that is common among the agencies.			
Timeframe	December 2019	Assigned to	Fire Chiefs and Fire Marshal
Objective 5.2.4—Establish processes to complete and record the review of all building plans within ten days of submittal, 90 percent of the time.			
Timeframe	January 2020	Assigned to	Fire Marshal
Objective 5.2.5—Complete annual inspection of all business occupancies.			
Timeframe	January 2020	Assigned to	Fire Marshal
Objective 5.2.6—Evaluate and refine as necessary public education and prevention programs that reduce the incidence of personal injury and property loss with key performance indicators to measure programs success.			
Timeframe	January 2020	Assigned to	Fire Marshal

Strategy 6: Physical Resources			
Goal 6.1—Design, manage, and maintain physical resources (i.e., facilities, apparatus, and capital assets) to ensure that they are adequate to meet the goals and objectives of the Departments.			
Objective 6.1.1—Evaluate existing facilities for operational effectiveness to include quantity, location, and functionality.			
Timeframe	Ongoing	Assigned to	Fire Chiefs and First Selectman
Objective 6.1.2—Establish a collective capital inventory program serving the needs of the citizens of Monroe effectively and efficiently.			
Timeframe	January 2020	Assigned to	Fire Chiefs and First Selectman

Strategy 7: Human Resources			
Goal 7.1—Develop and maintain human resource processes that will encourage and members to achieve high performance in a healthy, safe, and satisfying environment.			
Objective 7.1.1—Evaluate and refine (if necessary) recruiting and promotional processes.			
Timeframe	January 2020	Assigned to	Fire Chiefs
Objective 7.1.2—Research and implement a succession development process to ensure future leaders are in place when leadership vacancies occur.			
Timeframe	Ongoing	Assigned to	Fire Chiefs
Objective 7.1.3—Continue the development of cancer prevention procedures utilizing industry “best practices.”			
Timeframe	Ongoing	Assigned to	Fire Chiefs
Objective 7.1.4—Ensure effective firefighter mental health support systems are in place for fire department personnel.			
Timeframe	Ongoing	Assigned to	Fire Chiefs
Objective 7.1.5—Evaluate the feasibility of establishing “live-in” program for college students enrolled in Fire Science and Emergency Services degrees at local colleges.			
Timeframe	January 2020	Assigned to	Fire Chiefs

Strategy 8: Training and Competency			
Goal 8.1—Provide staff, resources, and programs in adherence with state and national emergency service professional standards to encourage competency, innovation, and increased effectiveness.			
Objective 8.1.1—Establish a training committee comprised of a member from each agency to establish a common annual training plan.			
Timeframe	July 2019	Assigned to	Fire Chiefs
Objective 8.1.2—Establish a common training schedule.			
Timeframe	July 2019	Assigned to	Fire Chiefs
Objective 8.1.3—Utilize NFPA 1410: Standard on Training for Emergency Scene Operations in developing training activities.			
Timeframe	July 2019	Assigned to	Fire Chiefs
Objective 8.1.4—Evaluate the feasibility of establishing a dedicated training grounds to obtain maximum benefit during its next ISO grading.			
Timeframe	January 2019	Assigned to	Fire Chiefs
Objective 8.1.5—Establish common procedures for the recording of all training activities.			
Timeframe	January 2019	Assigned to	Fire Chiefs
Objective 8.1.6—Develop and implement a company officer development program.			
Timeframe	September 2019	Assigned to	Fire Chiefs
Objective 8.1.7—Establish regular joint drills with mutual-aid partners.			
Timeframe	September 2019	Assigned to	Fire Chiefs

Strategy 9: Essential Resources			
Goal 9.1—Maintain or improve (as necessary) water supply and radio communications so that they are reliable and able to meet the demands of major operations during emergency operations.			
Objective 9.1.1—Work with SRCC to ensure compliance with NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems wherever possible.			
Timeframe	December 2019	Assigned to	Fire Chiefs
Objective 9.1.2—Work with SRCC to ensure compliance with 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.			
Timeframe	December 2019	Assigned to	Fire Chiefs
Objective 9.1.3—Establish a monthly performance report that the SRCC dispatch center will provide to demonstrate compliance with NFPA 1221 standards.			
Timeframe	December 2019	Assigned to	Fire Chiefs
Objective 9.1.4—Research and evaluate IT hardware/software tools to improve information management.			
Timeframe	July 2019	Assigned to	Fire Chiefs
Objective 9.1.5—Establish a standing communications committee to continually evaluate ongoing aspects of communications center operations impacting the Town of Monroe.			
Timeframe	January 2019	Assigned to	Fire Chiefs
Objective 9.1.6—Establish “closest unit” response based upon realigned “districts.”			
Timeframe	January 2019	Assigned to	Fire Chiefs

Strategy 10: External Systems and Resources			
Goal 10.1—Foster and maintain relationships and agreements with external agencies that affect or influence the mission, operations, or cost effectiveness of the Monroe fire departments.			
Objective 10.1—Annually review and maintain current mutual aid/automatic aid agreements to ensure they remain current and applicable to the Monroe fire departments.			
Timeframe	Ongoing	Assigned to	Fire Chiefs

Strategy 11: Customer and Market Focus			
Goal 11.1—Research and implement processes to determine expectations and preferences of customers and to ensure the relevance of current services and to develop new opportunities to meet the expectations of the community.			
Objective 11.1.1—Evaluate the feasibility of establishing a “fire services” customer satisfaction survey.			
Timeframe	July 2019	Assigned to	Fire Chiefs
Objective 11.1.2—Establish a process to communicate customer feedback to fire department personnel.			
Timeframe	January 2020	Assigned to	Fire Chiefs
Objective 11.1.3—Continue participation in the many opportunities to interact with the community (schools, chili cook-off, etc.).			
Timeframe	Ongoing 2020	Assigned to	Fire Chiefs
Objective 11.1.4—Identify performance metrics to be utilized in annual reporting to the citizens of Monroe.			
Timeframe	July 2019	Assigned to	Fire Chiefs

Short and Mid-Term Recommendations

The previous sections of this report detail a considerable volume of observations, comments, and recommendations relating to the management and operations of the three fire departments. The process of understanding, prioritizing, and implementing the recommended enhancements can be daunting, simply due to the amount of work that may be involved. To help the organization navigate through the process, the following matrix further defines the short and mid-term priorities that ESCI has identified as the most important initially.

Item	Short and Mid-Term Recommendations	Procedure/Policy/Program	Page Number
	Organizational		
1	Establish a written, performance-based contract between all parties to clarify expectations and responsibilities of all parties.	Policy	27
2	Establish a single "administrative" structure to facilitate business operations between the Town and the three fire departments.	Policy	30
3	Conduct a comprehensive analysis of "false calls" classifications.	Procedure	33
4	Standardize the definition of mutual aid/auto aid when responding in support of each other inside the Town and accurately report "aid" received or given.	Policy	33
5	Standardize the entry of incident call typing between the three fire departments. Consistent with complete NFIRS Guide 5.0	Procedure	36
6	Standardize process for ensuring all fire loss data is recorded properly.	Policy	39
7	Develop and implement a common budget to support the financial support of the three fire departments.	Policy	44
8	Fire Marshal's Office and fire departments' leadership utilize data to develop a monthly report to allow for the regular review of incident data and the response performance of each department.	Procedure	88
9	Work with SRCC to ensure compliance with NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems wherever possible.	Policy	89
10	Establish a standing communications committee to continually evaluate ongoing aspects of communications center operations impacting the Town of Monroe.	Policy	89
11	Work with SRCC to ensure compliance with 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.	Policy	89
12	Establish "closest unit" response based upon realigned "districts."	Policy	95
13	Establish a common set of written procedures to standardize the entry and recording of incident data.	Procedure	100

Item	Short and Mid-Term Recommendations	Procedure/Policy/Program	Page Number
14	Establish service demand zones to allow for a more detailed analysis of station workloads.	Policy	101
15	Close current Stevenson Station 1.	Policy	123
16	Close current Monroe Station 2.	Policy	123
Prevention			
17	Implement formal community risk reduction program in accordance with the soon to be released NFPA 1300: Standard on Community Risk Assessment and Community Risk Reduction Plan Development.	Program	116
18	Ensure an appropriate number of individuals are trained to NFPA 1452: Guide for Training Fire Service Personnel to Conduct Community Risk Reduction.	Policy	117
Operations			
19	Establish a common organizational structure to reduce the likelihood of confusion during emergency scene operation.	Policy	30
20	Collect accurate and complete response time data for all units assigned to an incident.	Policy	36
21	Implement a formal pre-fire plan process that is common among the agencies.	Program	56
22	Develop and implement standardized response plans.	Procedure	57
23	Participate in regional disaster planning activities.	Policy	58
24	Continue to develop common operational procedures.	Policy	71
25	Continue the development of cancer prevention procedures utilizing industry “best practices”.	Policy	74
26	Monitor the Effective Response Force (ERF) achieved on all structure fire calls per demand zones as identified in NFPA 1720.	Policy	77
27	Establish response time goals for the entire jurisdiction by incident type.	Policy	122
Training			
28	Establish a training committee comprised of a member from each agency to establish a common annual training plan.	Policy	76
29	Establish a common training schedule and curriculum.	Policy	81
30	Utilize NFPA 1410: Standard on Training for Emergency Scene Operations in developing training activities.	Policy	82
31	Establish dedicated training grounds to obtain maximum benefit during its next ISO grading.	Policy	82
32	Establish common procedures for the recording of all training activities.	Policy	83

Item	Short and Mid-Term Recommendations	Procedure/Policy/Program	Page Number
Administration			
33	Continue transition to the common records management system to allow for effective data collection and analysis.	Program	35
34	Utilize Town Fire Marshal to conduct quality assurance of all "fire" reports.	Program	37
35	Standardize all management processes and documents to ensure consistency in the operations of the three fire departments.	Policy	51
36	Incorporate additional information into their respective reporting efforts and provide analysis of information within the report.	Policy	52
37	Develop and implement an ongoing strategic planning process.	Program	58
38	Establish a collective capital inventory program serving the needs of the citizens of Monroe effectively and efficiently.	Policy	67
39	Evaluate mutual aid and automatic aid agreements to ensure currency.	Policy	113
41	Identify performance metrics to be utilized in annual reporting to the citizens of Monroe.	Policy	118

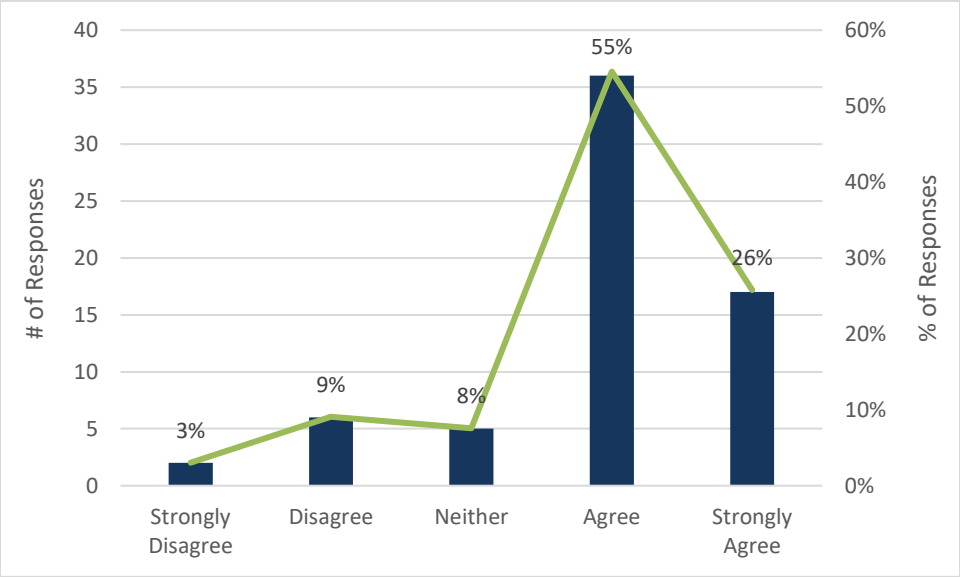
Long-Term Recommendations

The short and mid-term strategies discussed will move the organization forward substantially. A longer-term, high-level view of future needs is also important to provide a "big picture" view of how the organization needs to continue with future initiatives. Primarily, long-term strategies are centered on community growth and related workload and how both impact the future deployment of fire stations and personnel.

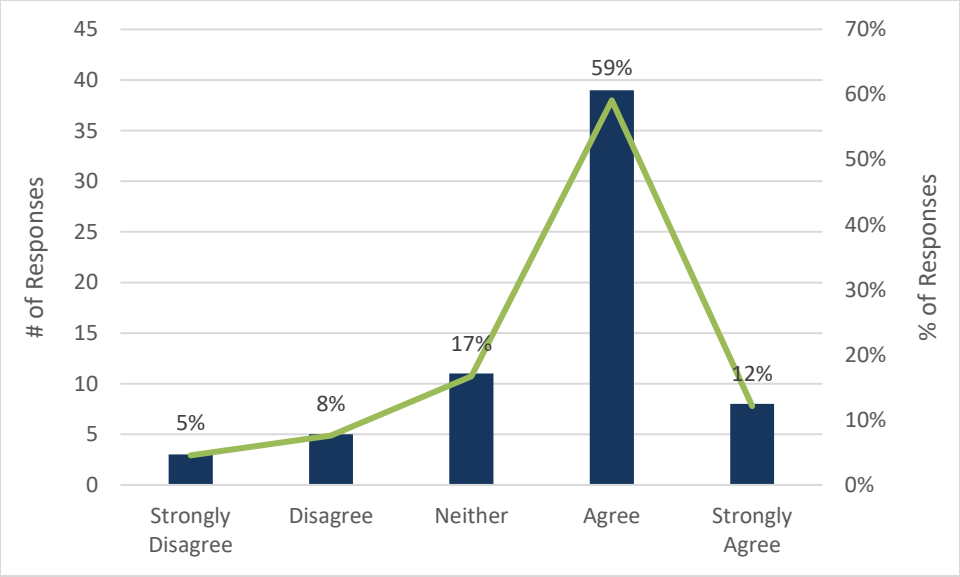
Item	Long Term Recommendation	Procedure/Policy/Program	Page Number
42	Evaluate the need to maintain two ladder companies to serve the Town of Monroe utilizing performance metrics and performance criteria.	Policy	99
43	Conduct an ongoing analysis of maintaining both Stepney stations using incident data and performance metrics.	Policy	98
44	Evaluate establishing a dedicated training site to be utilized by the three fire departments.	Program	82
45	Evaluate feasibility of establishing "live-in" program for college students enrolled in Fire Science and Emergency Services degrees at local colleges.	Policy	25

APPENDIX A—INTERNAL STAKEHOLDER SURVEY RESULTS

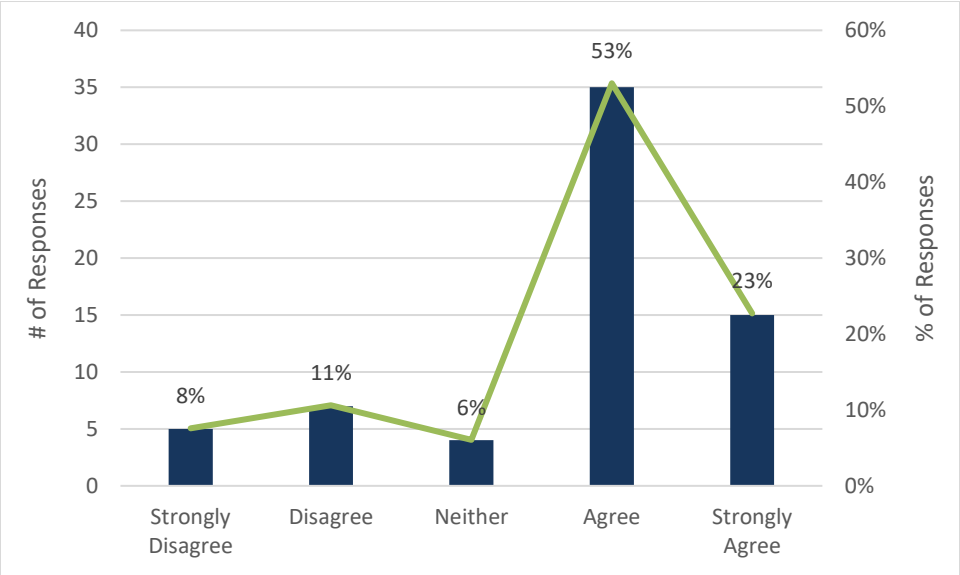
1. Department leadership is innovative and forward thinking?



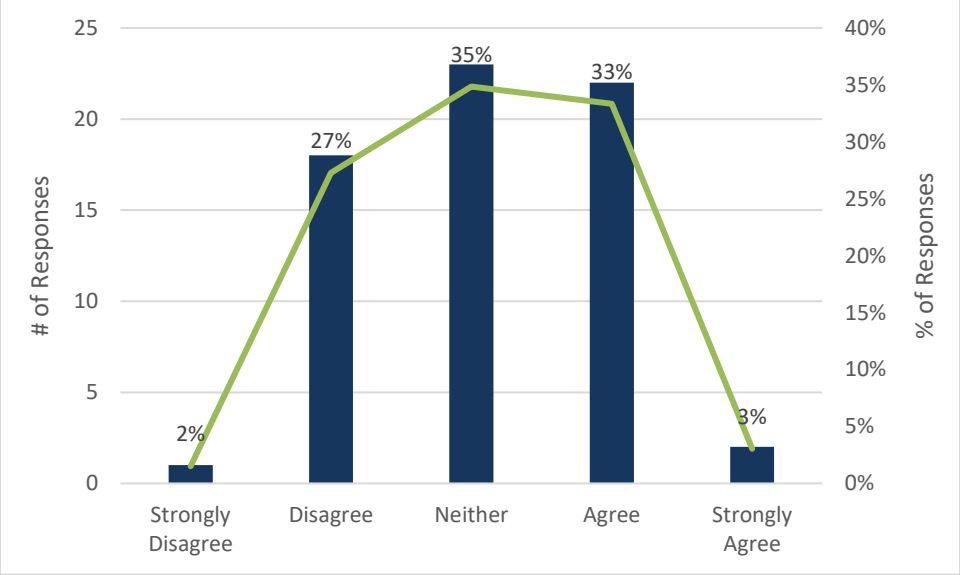
2. Department has clear goals and objectives?



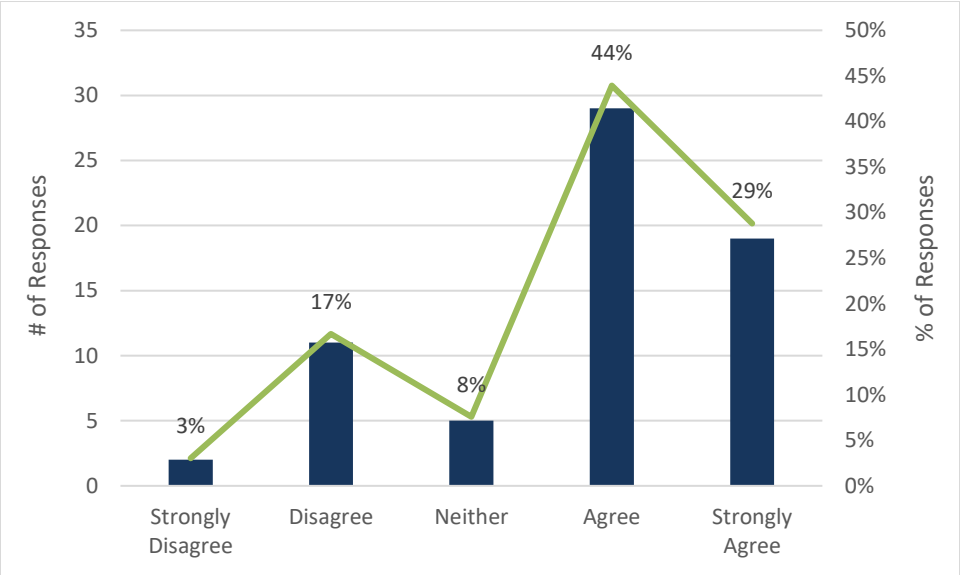
3. Department leadership communicates well with personnel?



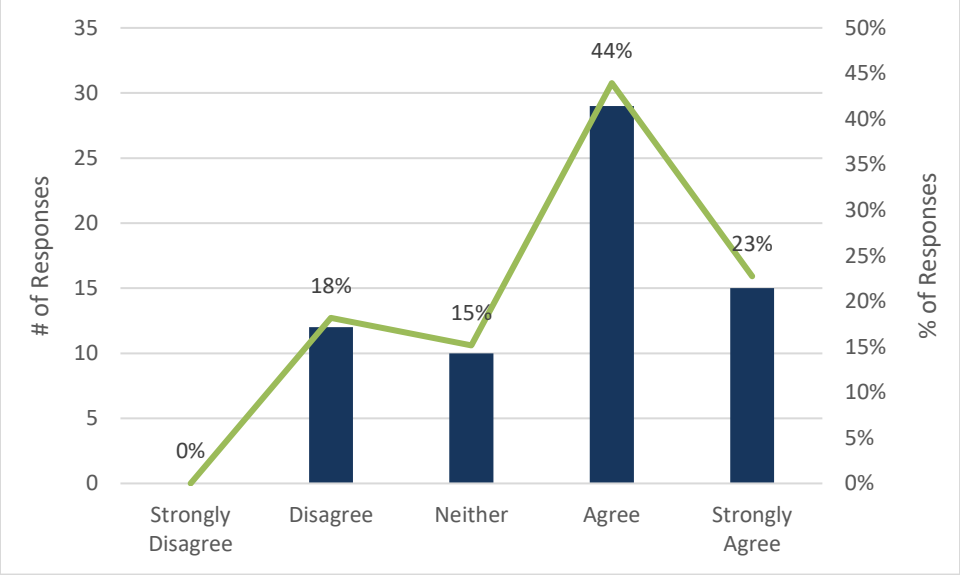
4. City leadership communicates well with departments.



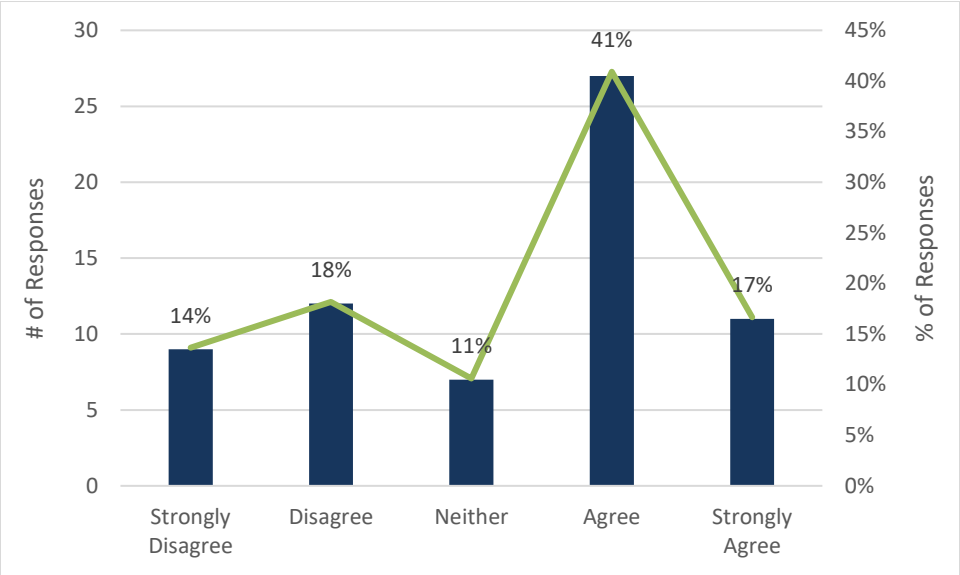
5. Departments cooperate/coordinate at a high level?



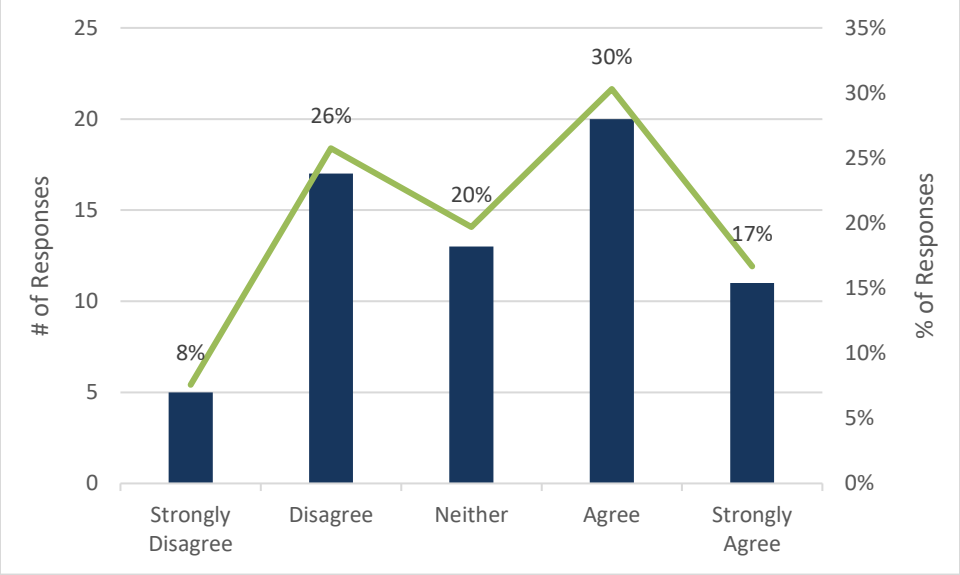
6. Trust is high between departments?



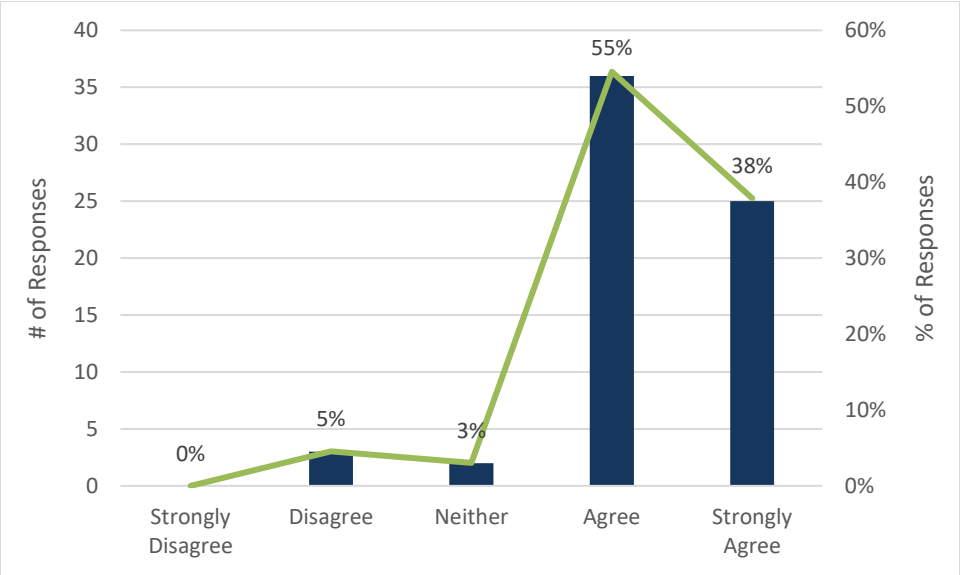
7. Facilities and buildings support services and operations?



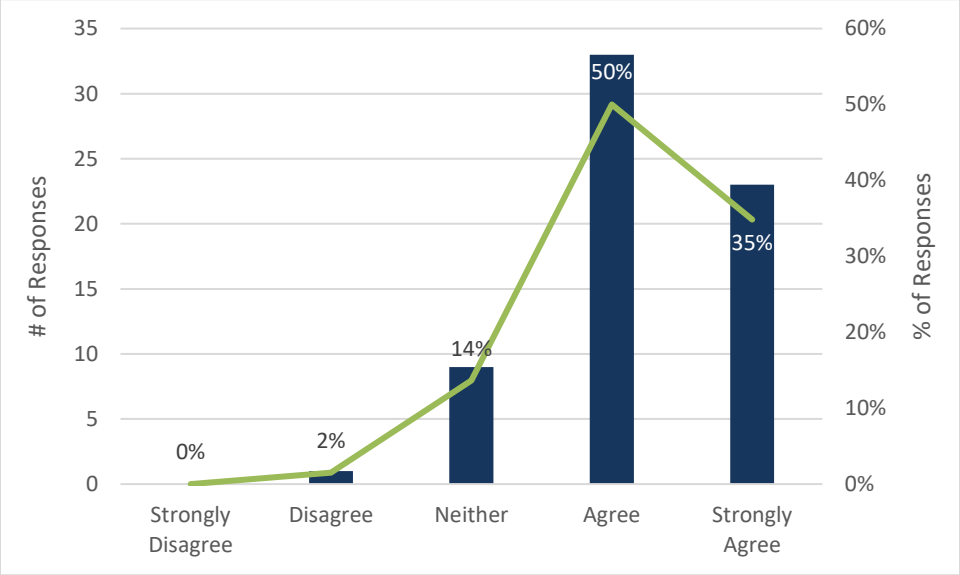
8. Facilities and buildings are well maintained



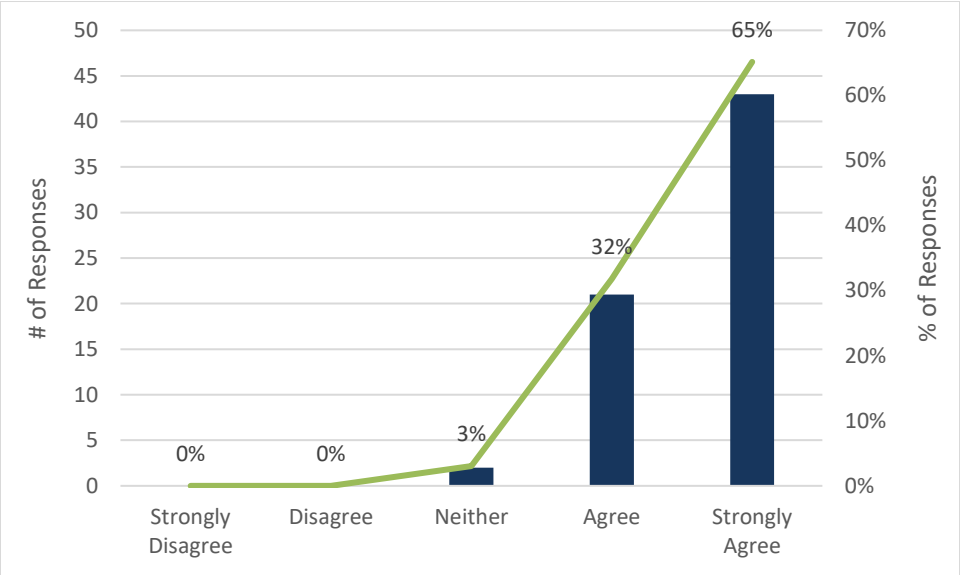
9. Apparatus and support vehicles are well maintained?



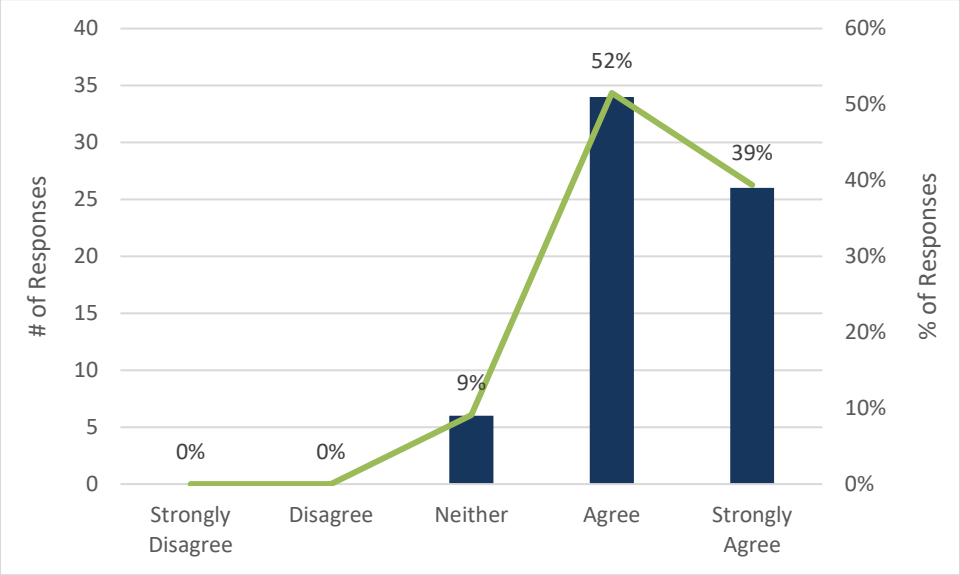
10. Support vehicles/trailers and team equipment effectively support fire suppression needs?



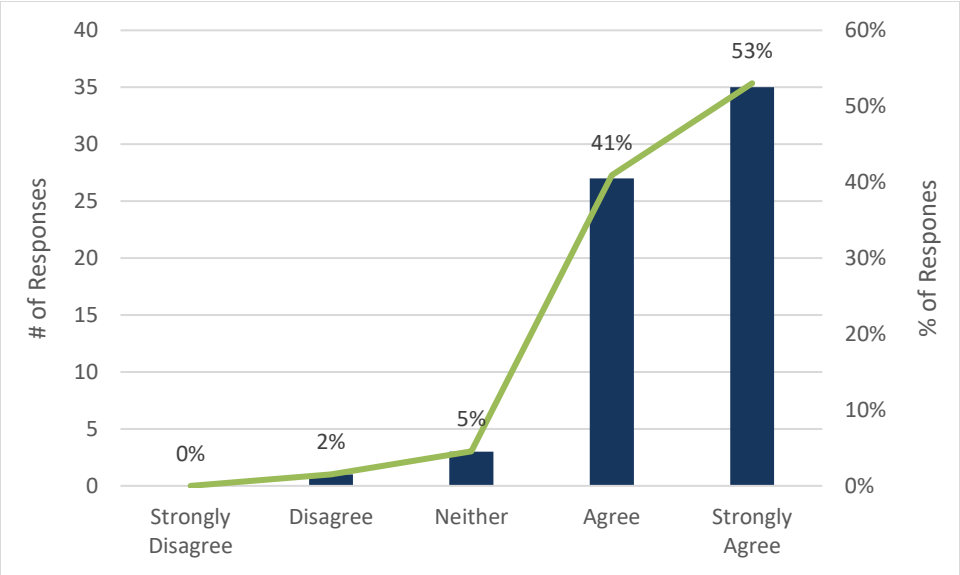
11. I have been afforded opportunities to receive training?



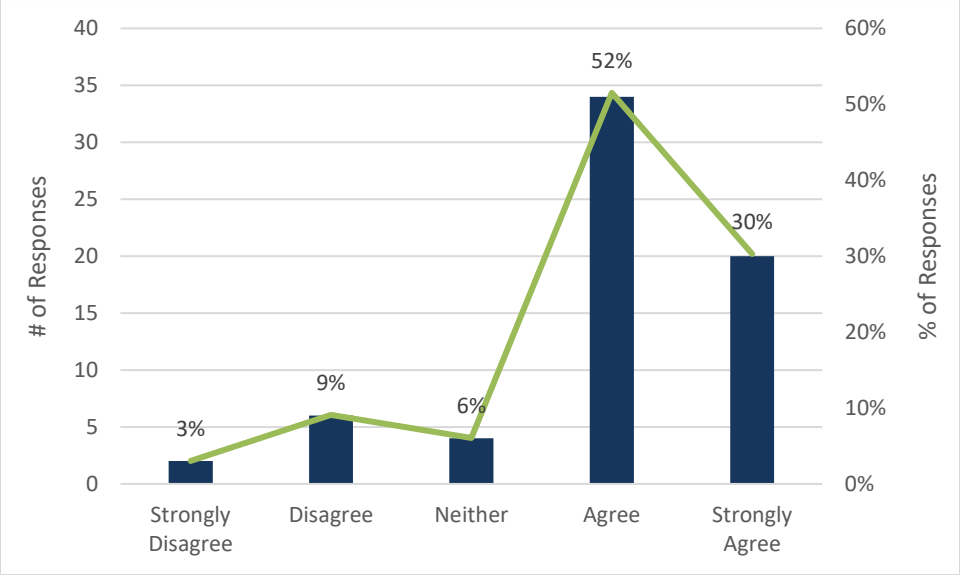
12. I have taken advantage of these training opportunities?



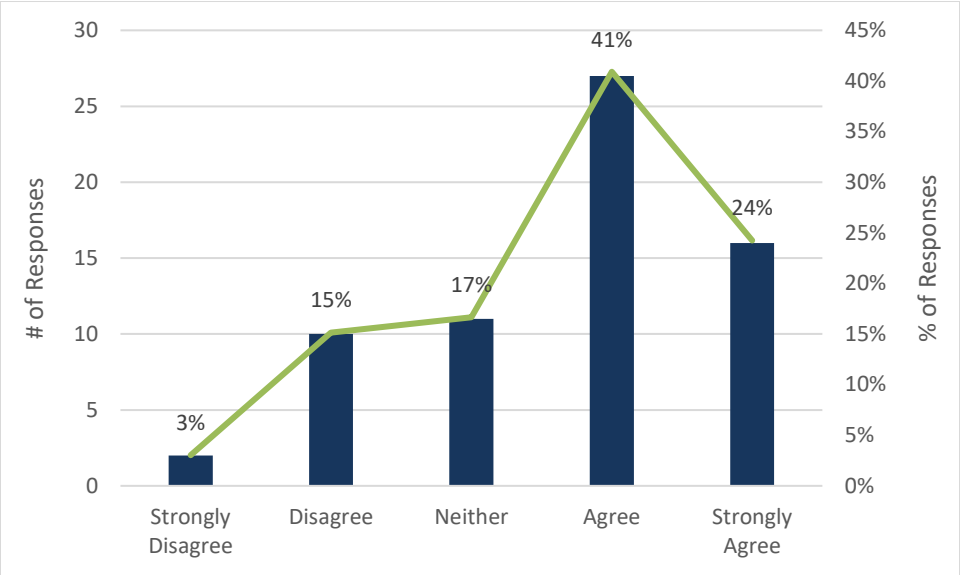
13. I have received the training I need to effectively perform fire suppression operations?



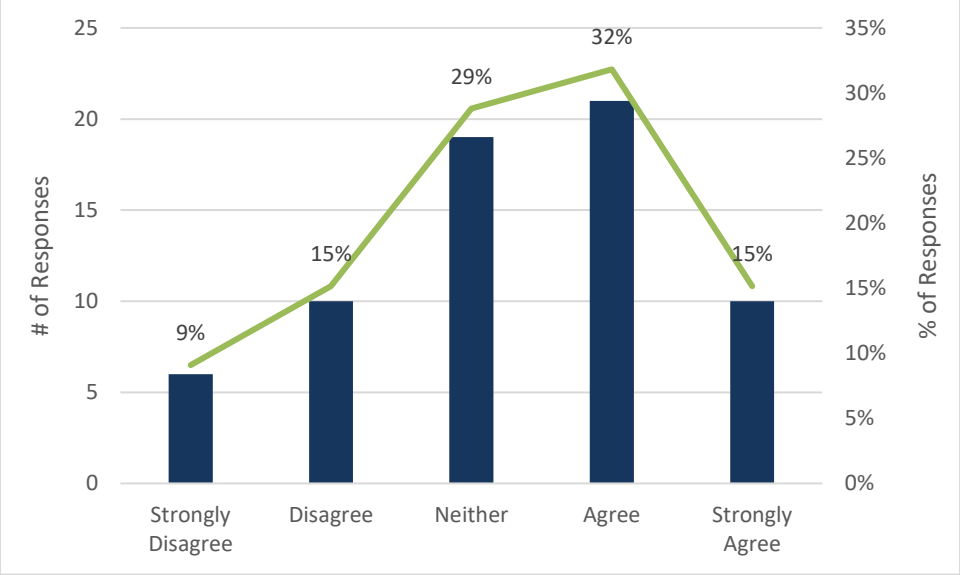
14. The current training format is effective at maintaining skill and proficiency levels?



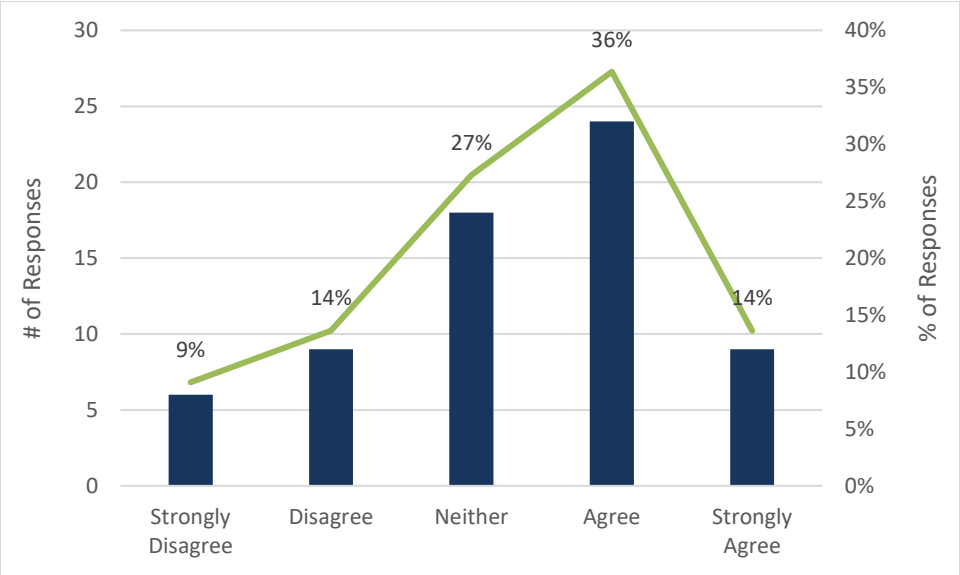
15. Department has effective approaches to developing engineers (pump operators)?



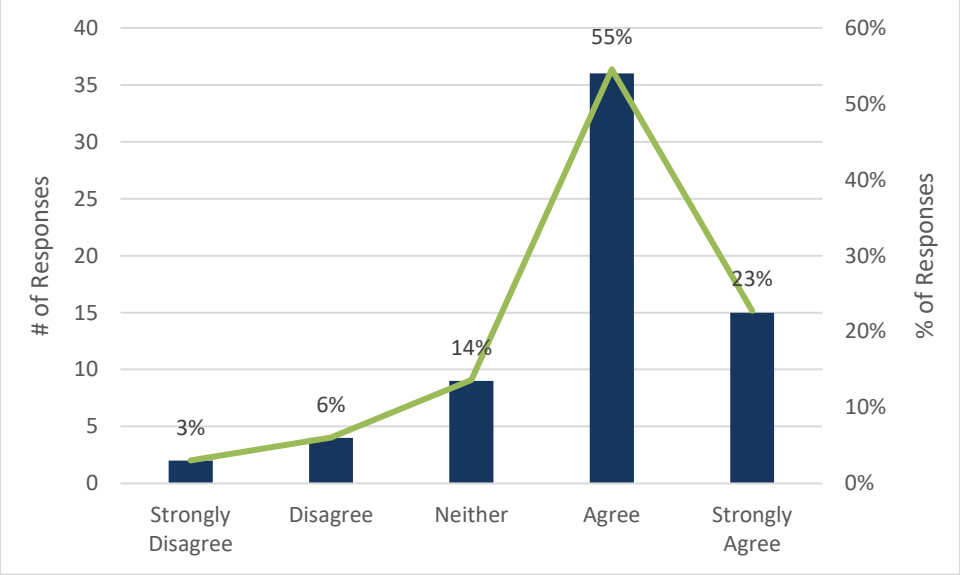
16. Department has effective approaches to developing company officers?



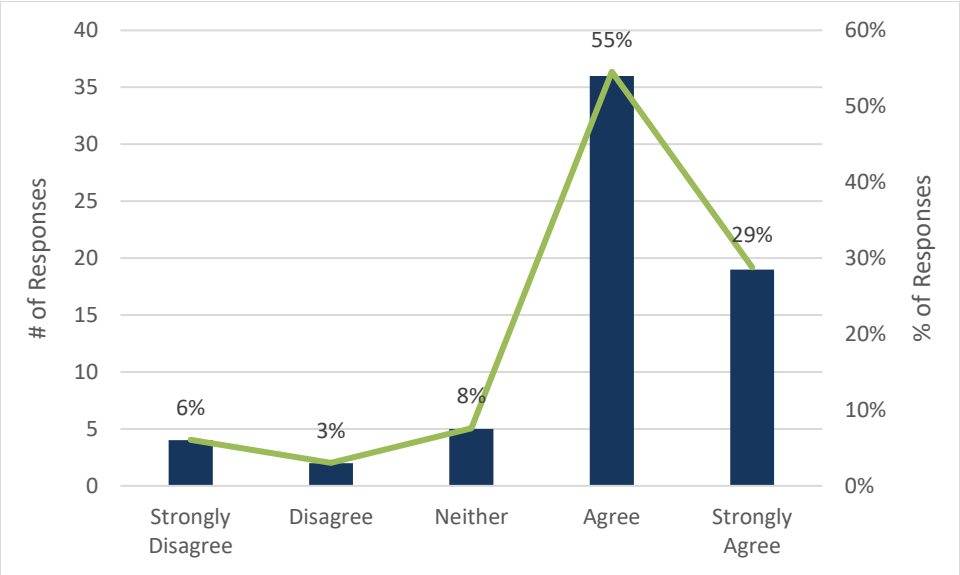
17. Department has effective approaches to developing command staff?



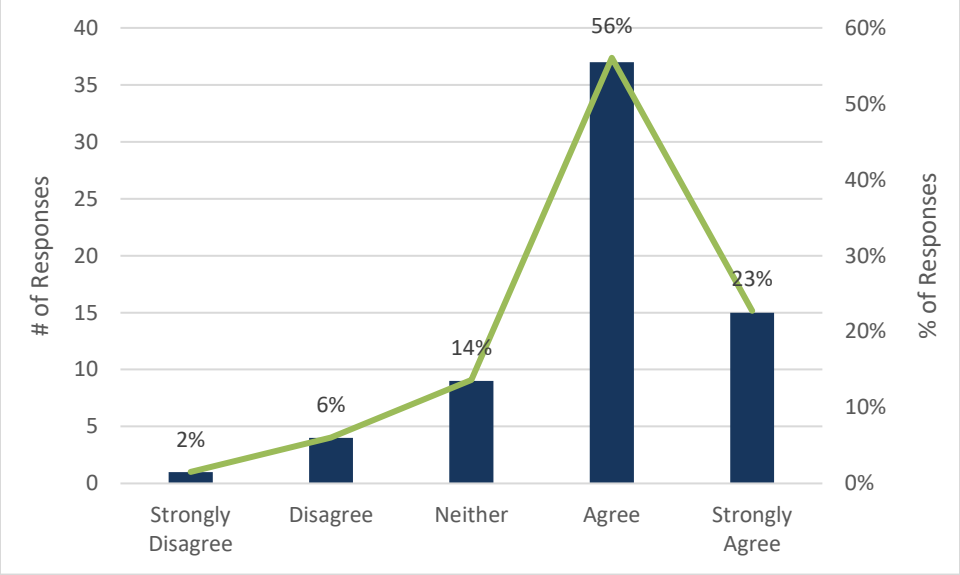
18. Policies and procedures support administrative operations?



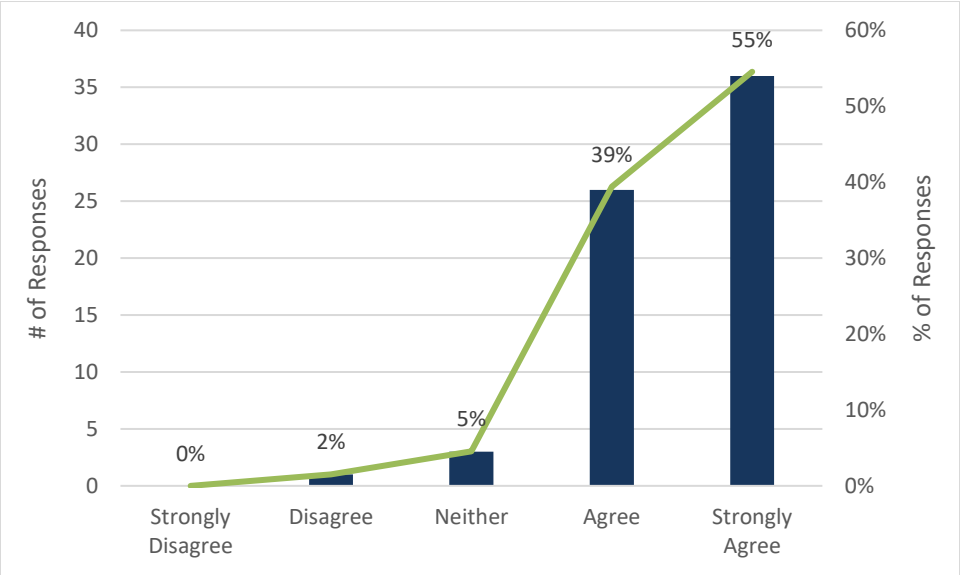
19. Policies and procedures support fire suppression operations?



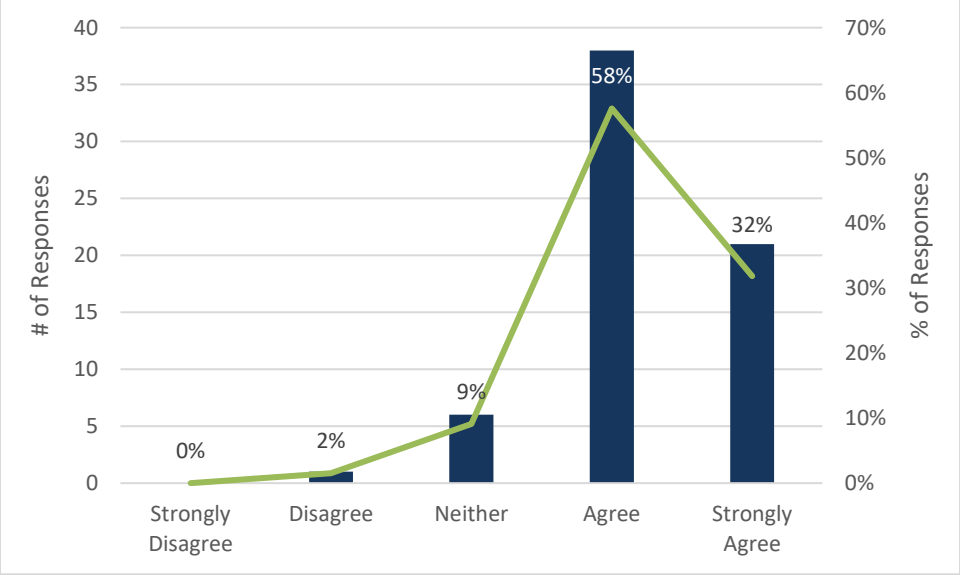
20. Personnel are professional?



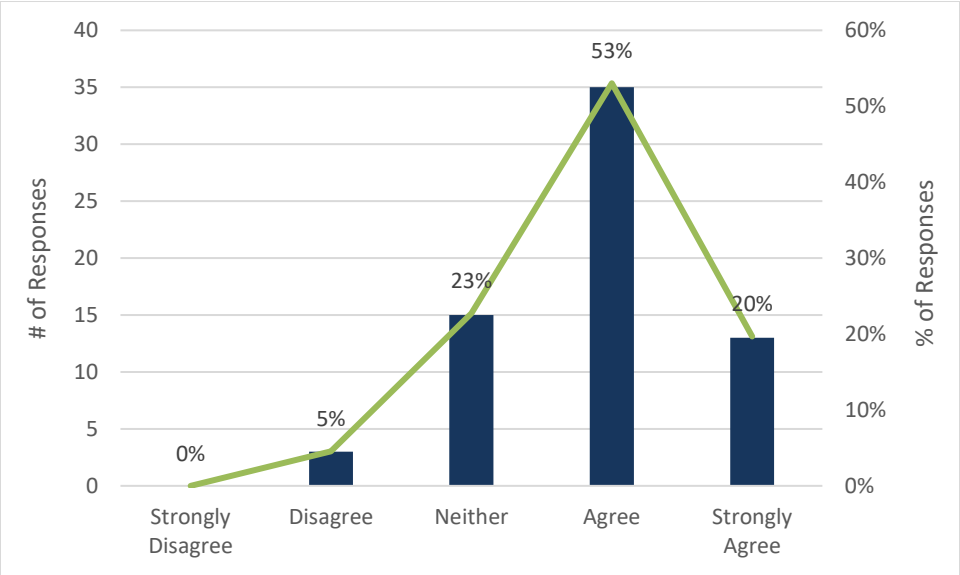
21. Personnel treat residents in the community with respect/courtesy?



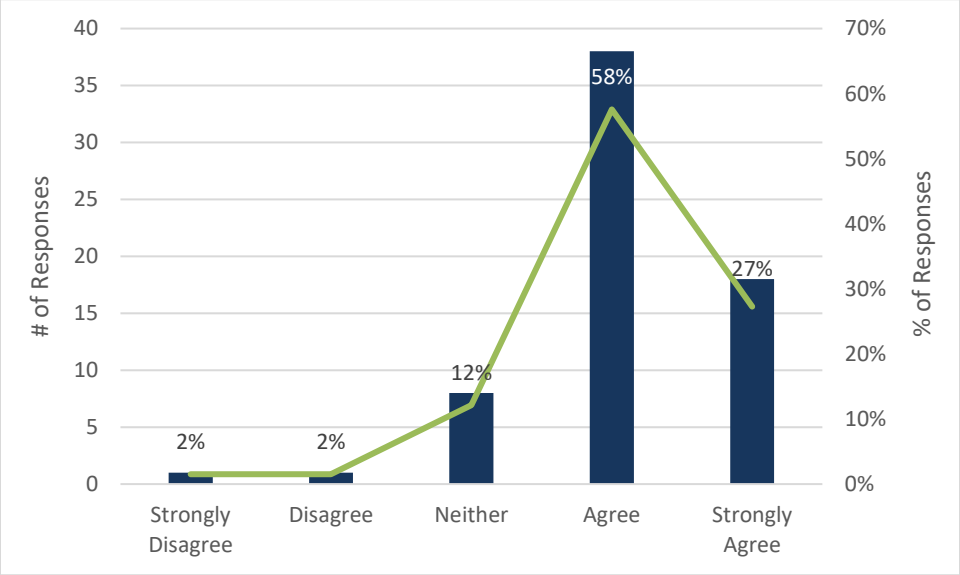
22. Personnel are service oriented?



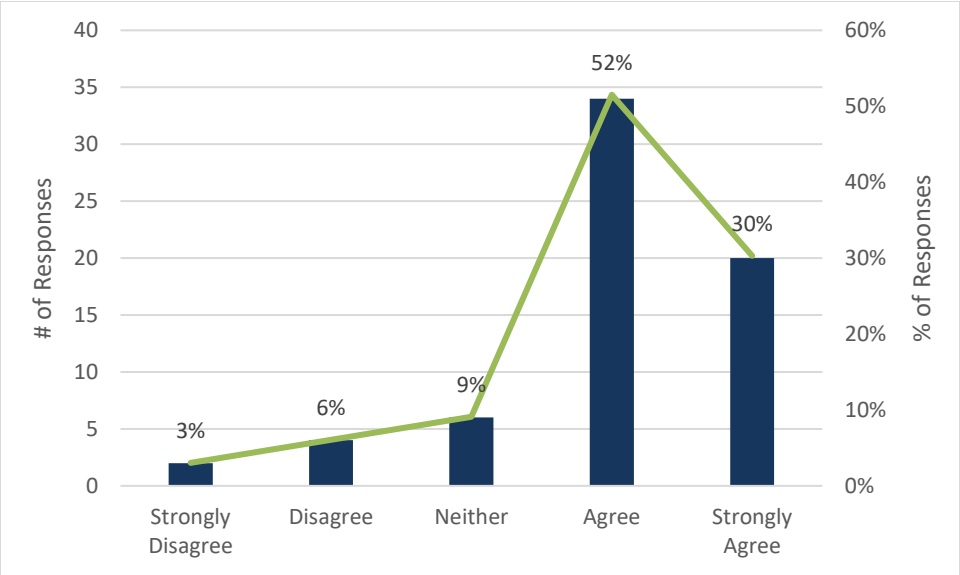
23. Personnel are courteous to each other?



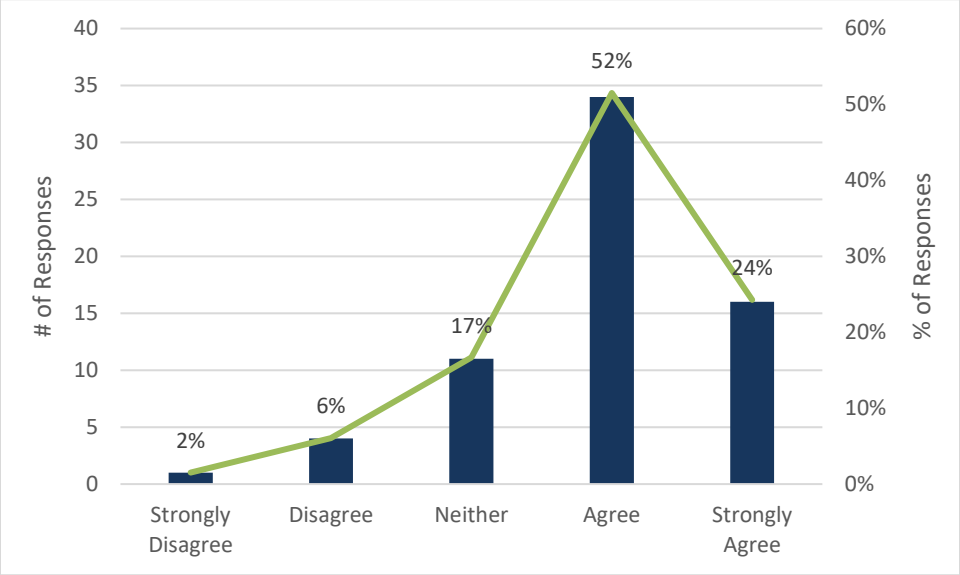
24. Personnel work effectively together as teams?



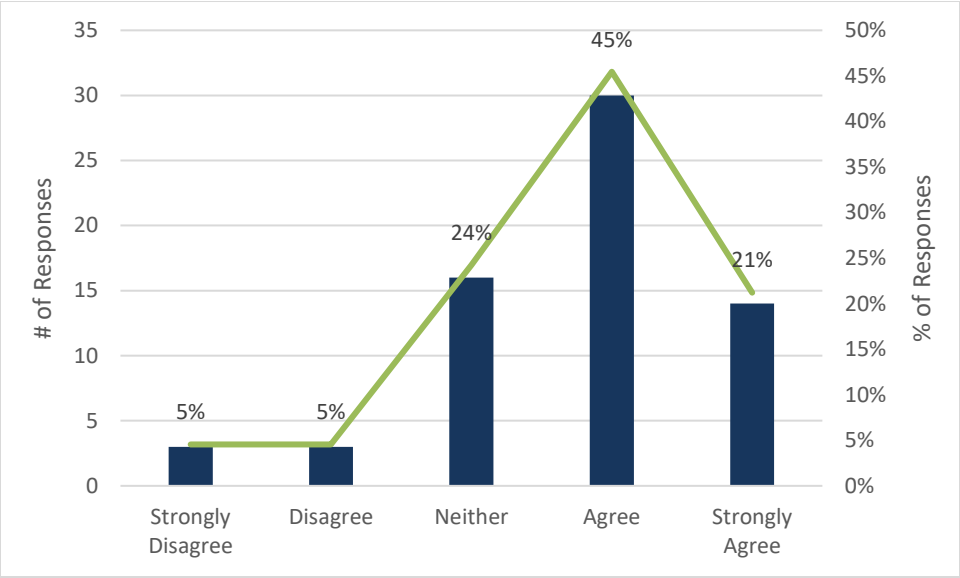
25. Personnel are motivated to do a good job?



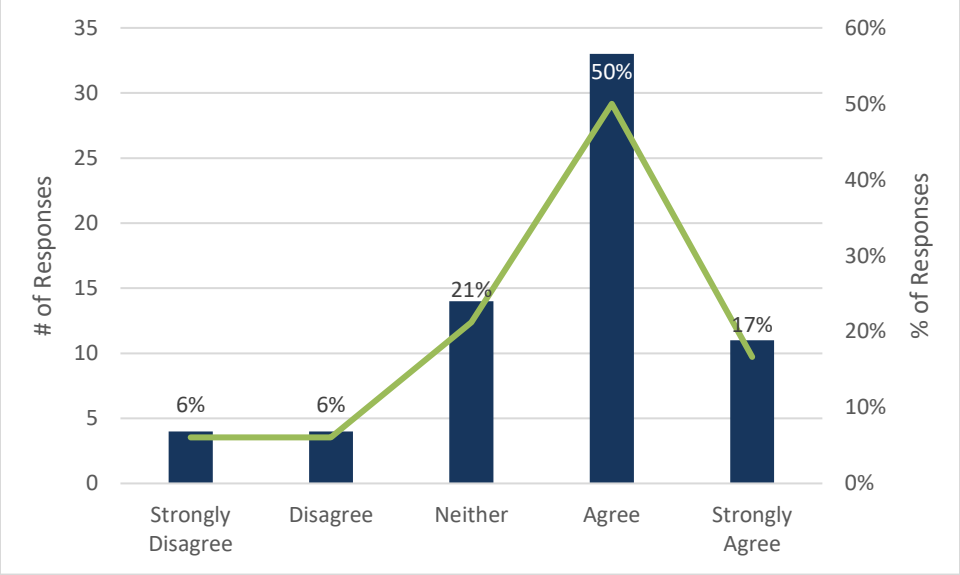
26. Personnel have a positive outlook on their job?



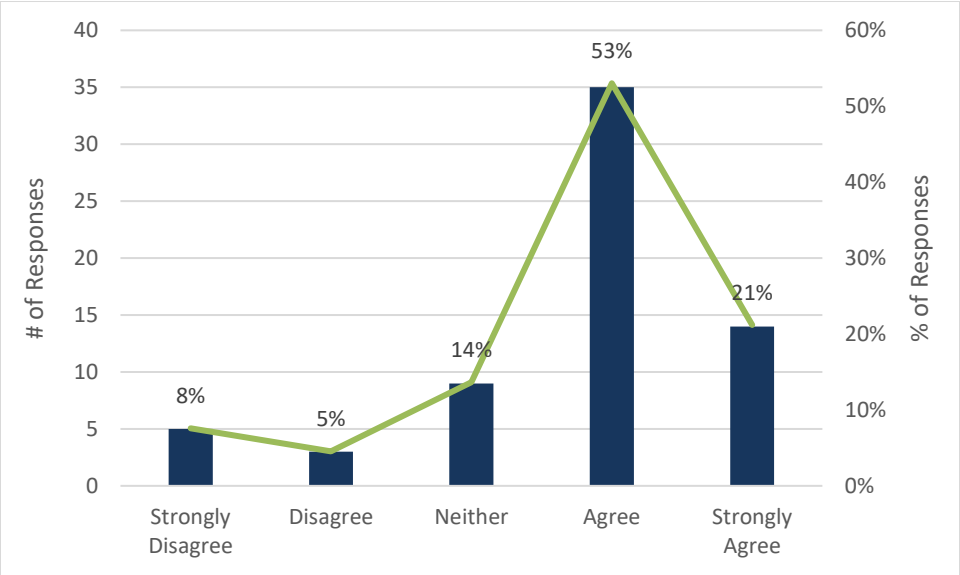
27. Department does an excellent job of engaging/involving the community?



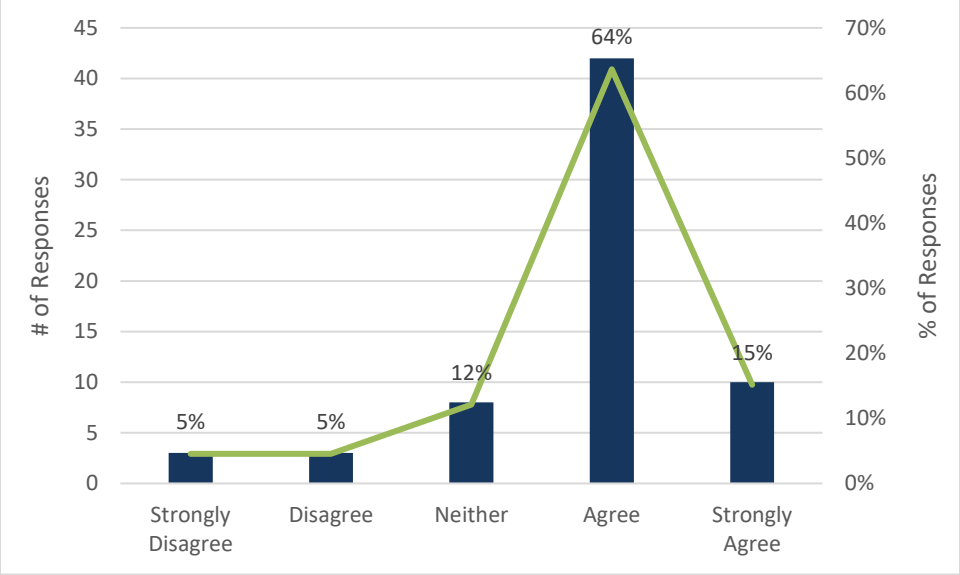
28. Department has established high expectations for the performance of all employees?



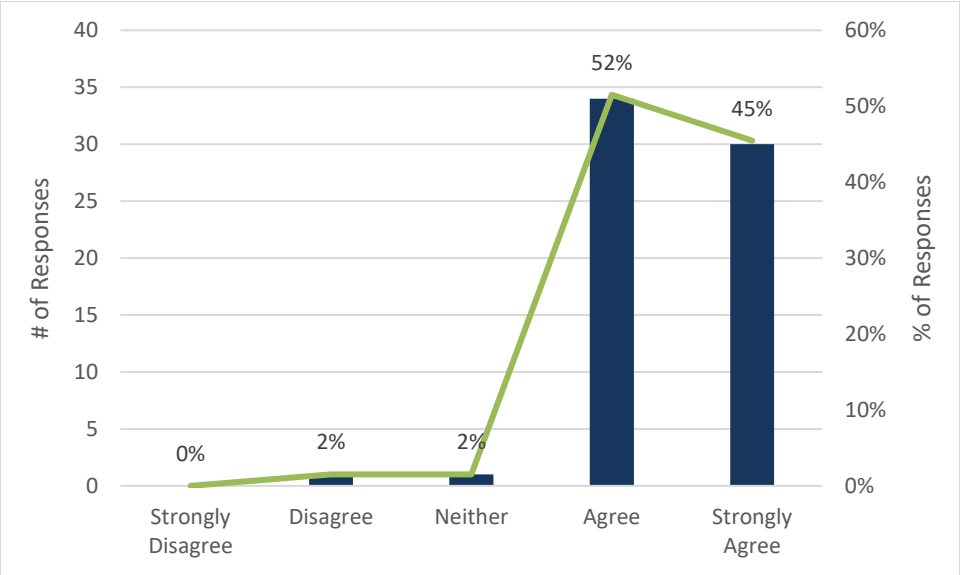
29. Personnel are held accountable for their decisions and performance?



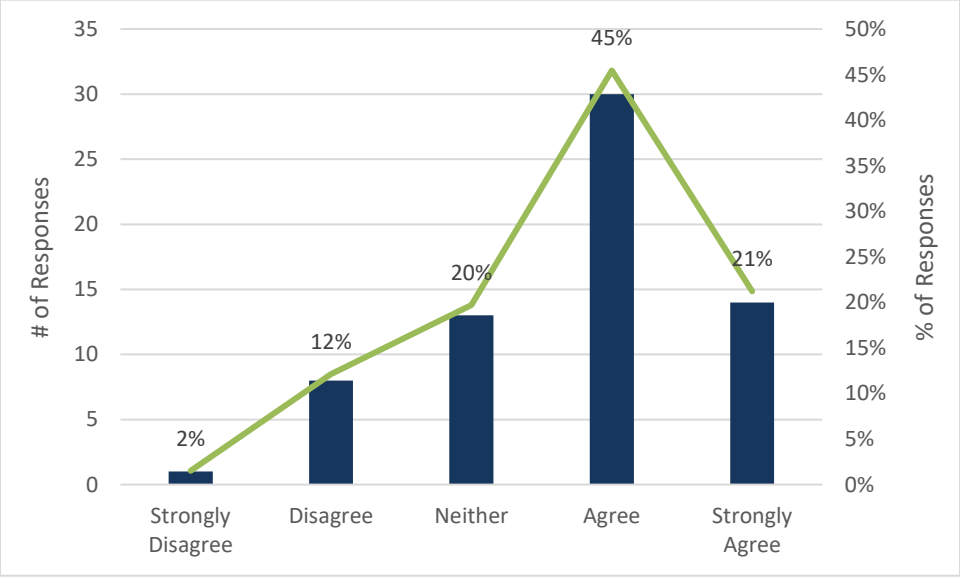
30. Personnel receive the support needed to improve their performance?



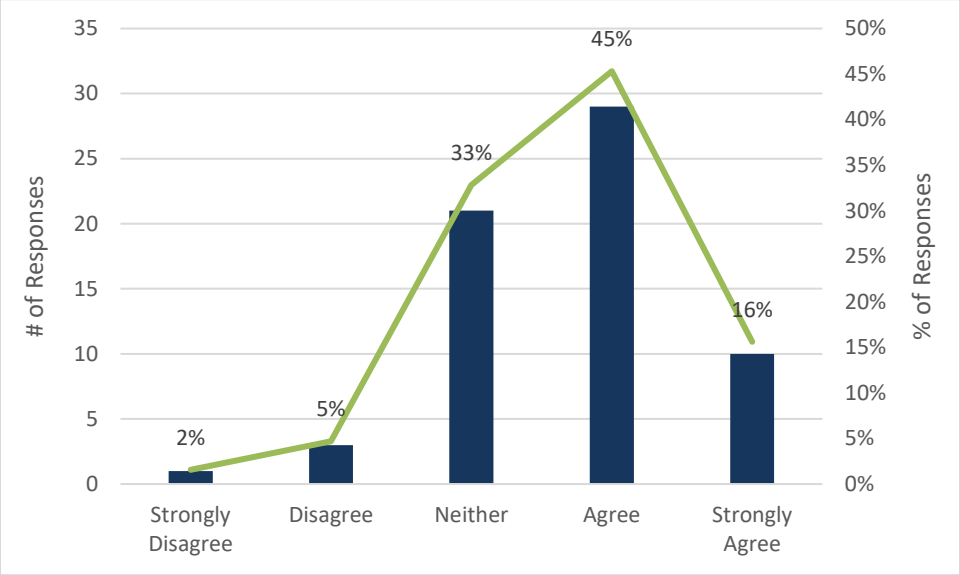
31. Department provides effective fire suppression services?



32. Public Education programs have been effective at identifying and preventing fire and life safety issues facing the community?



33. Code enforcement and business inspection programs have been effective at identifying and preventing fire and life safety issues in the community?



34. Does the department make an effort to reach out, and work with partners in the community for civic events/recruitment/retention initiatives?

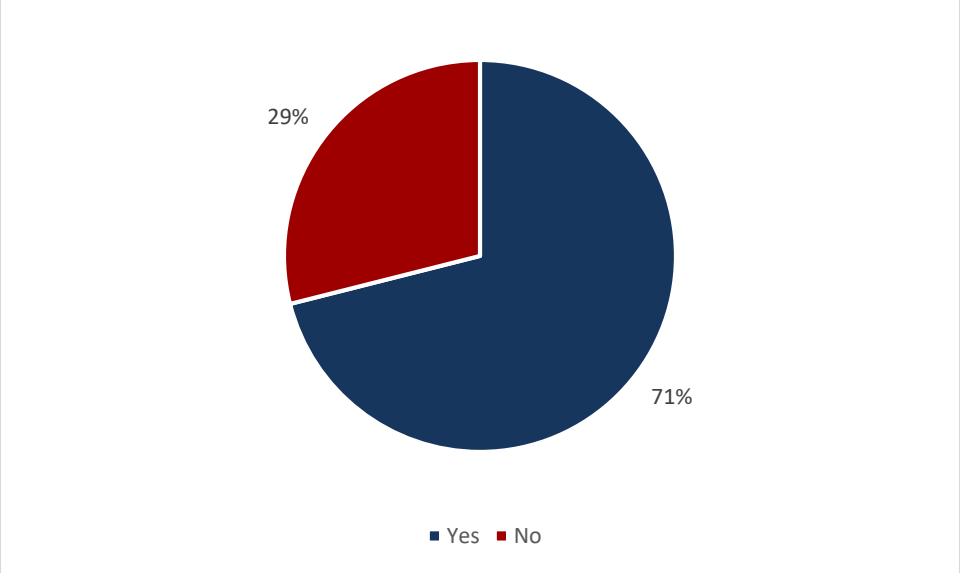


TABLE OF FIGURES