

FIRE, RESCUE, AND EMERGENCY SERVICES

Introduction

Fire protection and emergency medical service are indispensable services that are essential to the safety and quality of life of every County resident. The overall goal is to ensure adequate fire protection, response, and emergency medical services for the county's residents, businesses, and tourists.

Fire and rescue services are provided to Spotsylvania County residents and visitors through the Department of Fire, Rescue and Emergency Management (FREM), a system comprised of both volunteer and career personnel. Within the Department, along with career personnel who staff County operated Fire and Rescue Stations, There are three volunteer organizations (rescue squads and fire companies) providing services to the County. They include the Spotsylvania Volunteer Fire ~~and EMS~~ Department, Chancellor Volunteer Fire and Rescue Department and Spotsylvania Volunteer Rescue Squad. ~~The Spotsylvania County Department of Fire, Rescue and Emergency Management provides career personnel who staff fire and rescue stations. The Although volunteer station staffing levels vary with the amount of trained volunteers, The the C~~County is currently working towards providing personnel at each all 11 County Fire and Rescue Stations ~~station~~ seven days per week, 24 hours per day.

Services provided by the department are divided into five distinct categories as follows:

- 1 Fire - Fire suppression, first responder program, public fire education, and company inspection programs.
- 2 Rescue - Emergency medical treatment ~~and~~, transport, and public education.
- 3 Emergency Management/Support Services - Plans for natural or man-made disasters, processes ~~Material~~ Safety Data Sheets

(MSDS), responds to hazardous materials spills, investigates environmental issues (illegal dumps, spills, etc.), coordinates search and rescue efforts, provides ~~in-in~~ house vehicle repair and maintenance for fire and EMS vehicles, and provide logistical support for the department.

- 4 Fire and EMS Administration - Provides administrative support for the entire department, develops -

~~Develops~~ departmental budgets, establishes departmental policy and procedures, ~~processes fire inspections, fire investigations, fire and EMS reports and departmental related permits,~~ and administers the Revenue Recovery Program for Spotsylvania County. Administration also processes fire inspections, fire investigations, fire and EMS reports, and departmental related permits.

- 5 Fire Prevention – Performs plan review (site plan, building plan, and subdivision plat), conducts new construction and existing occupancy inspections to ensure compliance with applicable codes and standards, conducts investigations of fires, issues related permits (blasting, fireworks, burning, etc.)

Existing Facilities

Currently, there are ~~10-11~~ Fire ~~Companies~~ and ~~10~~ Rescue Stations spread throughout the County. Some facilities are joint facilities and some are stand-alone facilities devoted to either fire or rescue services. The specific stations are listed in the table below. ~~The facilities currently housing Fire Company 5 and Rescue 5 are being consolidated and a new joint use facility will be constructed in the Route 3 corridor in 2014.~~ Plans are ~~also~~ being developed for a replacement facility to replace the existing Fire and Rescue Station 3, and a new fire-Fire and rescue-Rescue station-Station (#121) in the vicinity of Mills Drive and Benchmark Road ~~Jefferson Davis Highway Hwy. and Massaponax Church Road~~. The existing facilities map shows the locations of current and known future stations.

The County maintains ~~an automatic mutual~~ aid agreements with the City of Fredericksburg, Orange, Louisa, Hanover, and Caroline Counties. Additional automatic aid agreements are expected with Stafford and King George Counties in 2019. There is an existing mutual aid agreement with Culpeper County that is in the update process presently. At this time there is no specific timeline on when the agreement will be finalized, however, Culpeper's mutual aid agreement is expected to convert to an automatic aid agreement within the planning period. and the Counties of Louisa, Orange, Caroline, and Hanover. The Department of Fire, Rescue and Emergency Management (FREM) Aid agreements within the region have improved over time and are expected to continue to be enhanced as noted above, within the planning period. Prior to this Comprehensive Plan update, the County had acknowledged a number of mutual aid agreements with adjacent localities. Mutual aid agreements assured regional cooperation and mutual FREM assistance across County or City boundaries when help was requested. Automatic aid agreements as opposed to mutual aid agreements result in more proactive, efficient and effective responses in case of emergencies, resulting in enhanced response times with a greater supply of FREM resources to stabilize the situation. With automatic aid, cooperating localities need not wait for a call for assistance from a nearby locality and therefore can dispatch vital resources more quickly.

FREM also seeks to reduce demand for fire and rescue services through a proactive fire prevention and safety education program. The program includes numerous public education activities as well as a fire safety inspection program.

The primary indicator of level of service in regard to fire protection is response time. The target response times are 6 minutes for suburban and 8 minutes for rural in 90% of responses, with an overall average of 7 minutes in 90% of responses countywide. ~~The current level of service is measured by distance from the various stations whether the station is fire or rescue only or a joint use location. The ability to meet this is predominately~~

dependent on two factors, the proximity of the response location to a station, and the availability of equipment and personnel at the station. During the next Comprehensive Plan amendment cycle these levels of service standards will be retired and replaced by a new methodology which measures “Unit Hour Utilization” and “Assembled Fire Fighting Force.” The Unit Hour Utilization will measure the Utilization, or load/demand in a period of time, relative to the Unit Hour supply. The Assembled Fire Fighting Force, according to NFPA 1710/1720 -measures the response time from dispatch to the point where the necessary equipment and teams (not just a first responder) are onsite to effectively resolve an incident. These more advanced measurement techniques will become available over the next few years due to capital improvements made by the County in FREM and Information Technology.

As of 2019, Approximately ~~90~~ 67% of the land area of the County is within the desired a five-mile-mile-driving radius-distance of a fire station. This is a standard commonly used by the Insurance Services Organization (ISO), a group funded by the insurance industry to establish insurance rates on a national level.

Road distance based service areas have been mapped with the assistance of FireView Software administered by the Spotsylvania County GIS office. In past iterations of the Comprehensive Plan, response distances had been mapped based on an equal 5-mile radius buffered around fire stations (appearing as circles). Though the distances were reflective of standards they did not factor in the road based routes necessary for fire and rescue apparatus to travel from station to the location of an emergency. With improvement of technology available, the County has enhanced its portrayal of response times, depicting “real world” distances considerate of the road network and routing. ~~An even greater percentage of the existing structures are within the five-mile radius due to the density of development in the Primary Development Boundary. This is a standard commonly used by the Insurance Services Organization (ISO), a group~~

~~funded by the insurance industry to establish insurance rates on a national level.~~

Many variables can affect response time and the generation of fire/rescue calls by a given population. Among them are geography, road networks, age and density of population, traffic volumes, inclement weather, and age and quality of the building stock. The analysis of the department focuses on future population projections and call loading within a fire/rescue district or response zones. A threshold of 2,500 total calls per year is used as the benchmark indicator of full capacity at any single fire/rescue station, staffed with one fire apparatus and one ambulance.

Distance and call volume based level of service gaps have helped drive recommended short and long term fire and rescue station additions recommendations as depicted in the FREM 5-Mile Response Map. In the short term, Fire and Rescue Station #12 is expected to go into service in the Massaponax area. Construction of Station #12 is expected to occur in 2021-2022. Longer term target additions for Fire and Rescue stations include the Elys Ford area in northwest Spotsylvania County, Shady Grove, and Post Oak.

Level of Service Standards

Level of Service is evaluated through multiple means. The ~~alpha~~-primary measure of service is response time but response time is driven by several factors. The primary factors are station location, equipment availability, and staffing levels and availability.

There are ~~four~~-three LOS standards for fire and rescue:

1. Respond to 90% of all fire and emergency medical service incidents within 6 minutes of being dispatched when the incident is located in the Primary Development Boundary ~~suburban districts of the County.~~ These districts include areas covered by Stations 1, 4, 5, 6, 10, and 11. The planned Station 12's district will also be included in this list of districts.

2. Respond to 90% of all fire and emergency medical service incidents within 8 minutes of being dispatched when the incident is located outside the Primary Development Boundary rural districts of the County. These districts include areas covered by Stations 2, 3, 7, 8, and 9.
3. Achieve a 7-minute average countywide response time for 90% of the county's incidents.
Achieve a 1 : 11,000 ratio of stations per capita.

Location Criteria

The following criteria should be used in determining appropriate sites for additional stations in order to provide a consistent level of service across the County.

- Locate stations at points with quick access to a major arterial road. If possible sites should be located near two major arterials that offer both east/west and north/south travel.
- Locate new fire/rescue stations near mixed-use centers where possible, based on key site planning considerations such as access, safety, and response time.
- Response times will also be considered in evaluating and selecting appropriate sites. This will ensure that the targeted response goals are being met.

Design Criteria

The following design criteria should be considered when developing a new site for emergency response stations.

- Co-locate fire and rescue facilities for maximum efficiency. Consider co-locating with other public facilities as well.
- Acquire sites of at least 3 acres in the urban area since there is the availability of county water and sewer lines and 5 acres in the rural area in order to accommodate drainfields in order to provide for co-location of public facilities and future expansion.

Recommendations

The following are recommendations for the provision of adequate Fire and Rescue facilities.

General

- Coordinate with lead/ support agencies and Implement regional and Spotsylvania County specific mitigation action strategies associated with the current iteration of the George Washington Regional Commission Regional Hazard Mitigation Plan.
- Work with local and regional stakeholders to update the Regional Hazard Mitigation Plan consistent with the required review and update five (5) year cycle as established in the Federal Disaster Mitigation Act of 2000, administered by the Federal Emergency Management Agency (FEMA).
- **Short Term**
 - Integrate technologies and adopt procedures necessary to measure performance using the Unit Hour Utilization and Assembled Fire Fighting Force metrics.
 - Study Fire and Rescue calls and responses, as well as ~~Unit Hour Utilization~~ to determine whether ~~separate facility needs~~ LOS needs dictate the construction of additional stations in some areas, and/or staffing additional fire apparatus and ambulances in existing facilities. ~~should be established for the two services.~~
 - Build replacement ~~FC/RS 5~~ Fire and Rescue Station 3 on Route 3 in the Partlow area.
 - ~~Secure land for and build FC/RS 11~~ Fire and Rescue Station 12 in the ~~Mills Drive~~ Jefferson Davis Highway Hwy. / ~~Benchmark~~ Massaponax Church Road Rd. area.
 - ~~Secure land for and build a new fire and rescue station to split the call volume handled by stations #4 and #6.~~
 - Build the Classroom and Logistics Facility at the Rappahannock Regional Training Center to facilitate improved system-wide training abilities and meet logistical storage needs.

- Implement traffic management strategies and technology, such as traffic signal preemption devices to facilitate improved response times.
- Continue efforts to update the aid agreement with Culpeper County, resulting in conversion from a mutual aid agreement to an automatic aid agreement.

Long Term

- ~~Secure property for the replacement of the FC/RS 3 facilities into a new consolidated use site.~~
- ~~The land acquisition~~Acquire land for fire/rescue joint use sites ~~will need to occur~~ in order to relieve the burden on existing fire/rescue facilities. ~~Possible~~Considering level of service standards, new locations are in ~~the~~ Shady Grove, ~~Massaponax Church,~~ and Post Oak, ~~and River Road/Spotswood Furnace Road areas.~~and northwestern Spotsylvania County (north of Route 3).