

Resolution No.: 16-1280
Introduced: March 9, 2010
Adopted: March 16, 2010

**COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND**

By: County Council

SUBJECT: Approval of 2009 Update of the Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan

Background

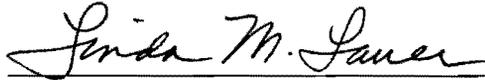
1. County Code Section 21-12 requires the Montgomery County Fire and Rescue Service (MCFRS) to maintain, review, and amend as necessary a Master, Fire, Rescue, and Emergency Medical Services Plan.
2. The current *Fire, Rescue, and Emergency Medical Services Master Plan*, was approved by Council resolution 15-1169 in October 2005.
3. The Master Plan calls for a comprehensive review to begin 18 months after approval by the Council. The 2009 Master Plan Update is the result of the required 18-month review.
4. County Code Section 21-12(b) requires the Fire Chief to hold at least one public hearing on any significant amendment to the Plan. The Fire Chief held a public hearing on the 2009 Master Plan Update on November 30, 2009.
5. The Executive initially transmitted the 2009 Master Plan Update to the Council on September 8, 2009, before the Fire Chief held the public hearing. The Executive re-transmitted the 2009 Master Plan Update with a report on the results of the public hearing on January 8, 2010.
6. County Code Section 21-12(c) provides that the Master Plan must serve as a guideline for the Executive, Council, and Fire Chief in making decisions regarding delivery of fire and rescue services, does not have the force of law, and does not impose any legal obligation on any party.
7. County Code Section 21-12(b) allows the Council to approve the Master Plan as proposed or with amendments.
8. The Public Safety Committee reviewed the 2009 Master Plan Update on February 24 and March 4, 2010, and recommended certain amendments. The Committee recommended approval, as amended.

Action

The County Council for Montgomery County, Maryland, approves the following resolution:

The 2009 Update of the Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan, as amended, is approved.

This is a correct copy of Council action.



Linda M. Lauer, Clerk of the Council

**UPDATE OF THE
FIRE, RESCUE, EMERGENCY MEDICAL
SERVICES, AND COMMUNITY RISK
REDUCTION MASTER PLAN**



AUGUST 2009

APPROVED BY: FIRE CHIEF RICHARD R. BOWERS

ADOPTED BY: MONTGOMERY COUNTY COUNCIL, MARCH 16, 2010

WRITTEN BY: SCOTT GUTSCHICK, PLANNING SECTION MANAGER

**2009 UPDATE OF THE
FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND
COMMUNITY RISK REDUCTION MASTER PLAN**

TABLE OF CONTENTS

	<u>Page</u>
BACKGROUND	3
MASTER PLAN UPDATES AND REVISIONS:	3
• GLOBAL UPDATES	3
• SECTION 2 UPDATES	4
• SECTIONS 5 AND 6 UPDATES	5
MASTER PLAN ADDITIONS	14
MASTER PLAN DELETIONS	17
ATTACHMENTS:	18
• FIGURE 2.1	19
• FIGURE 5.6	20
• FIGURE 5.8	21
• FIGURE 5.9	22

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

BACKGROUND

The *Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan* (page 1-20) states that the Master Plan should undergo a comprehensive review at the 18-month mark following its initial adoption by the County Council in October 2005. This requirement was predicated on the new County Fire Chief - who took office in January 2005 - requiring 18 months into his tenure to review the Plan and determine whether its content reflected his vision and priorities for the Montgomery County Fire and Rescue Service (MCFRS). The review began in July 2006 and concluded about ten months later. Written updates (more specifically: updates, revisions, additions, and deletions) were drafted during 2007, finalized in 2008, and approved in 2009.

This document presents and describes the updates resulting from the production and review process. It is organized into sections addressing Master Plan updates/revisions, additions, and deletions.

MASTER PLAN UPDATES AND REVISIONS

The following updates and revisions should be incorporated into the Master Plan:

GLOBAL UPDATE - ALL SECTIONS

Apparatus designations used throughout the Master Plan reflect the former unit numbering system used by MCFRS. Effective October 15, 2007, MCFRS modified its unit designations to reflect the Washington Metropolitan Area Council of Governments Unit Numbering System whereby each member county/city has been assigned a jurisdictional identifier between the numbers 0 and 9 for its fire-rescue units. Under the COG system, all Montgomery County units now begin with the number "7" followed by the station number; e.g., Engine 11 is now "Engine 701," Medic 89 is now "Medic 708," Truck 12 is "Truck 712," Rescue Squad 15 is "Rescue Squad 715," etc. When multiple units of the same type are housed in the same station, the additional units use the suffix "Bravo, Charlie, Delta," etc. following their unit number; e.g., Ambulance 86 is now "Ambulance 708-Bravo," Engine 32 is now "Engine 703-Bravo." The new numbering system also applies to Command Officers and Battalions; e.g., Chief 17 is now "Chief 717," Battalion 4 is now "Battalion 704." Under the COG system, Rescue Station 1 is known as "Rescue Station 41" and Rescue Station 2 as "Rescue Station 42;" and their units have designations such as "Ambulance 741-Foxtrot" (formerly Ambulance 15), "Medic 741-Bravo" (formerly Medic 11), "Rescue Squad 742" (formerly Rescue Squad 29), etc.

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

SECTION 2

Organizational Chart [p. 2-1 and Figure 2.1]

Replace the MCFRS organizational chart (located at the back of Section 2) with the attached updated chart (Figure 2.1). Revisions include:

- Adding “MCFRS Recruiting” to Community Risk Reduction Services Division
- Removing “Budget & Grant Administration” and “Training & Risk Management Support” from the Volunteer Services Division. [Note: These functions have been assigned to the Administrative Services Division and the Wellness, Safety and Training Division, respectively, as elements of existing functions.]

Office of the Fire Chief [p. 2-2]

Revise page 2-2 to indicate that the MCFRS Honor Guard is assigned to the Office of the Fire Chief rather than the Operations Division – Special Operations Section.

Career Fire-Rescue Officers Association [p.2-10]

Revise the first bullet to state that membership in the Career Fire-Rescue Officers Association includes the ranks of Battalion Chief, Assistant Chief, and Division Chief.

Vision and Mission [p. 2-27]

Replace the MCFRS vision and mission with the revised versions appearing below. Revisions were approved by the Interim Fire Chief and based upon input provided by career and volunteer participants of the FY08 MCFRS Planning Forum during and subsequent to the forum. Revisions/additions are highlighted in **boldface font**.

Vision: The Montgomery County Fire and Rescue Service vision is to keep our communities safe and healthy by providing the best fire, rescue, and emergency medical services, **utilizing career and volunteer resources**.

Mission: The Mission of the Montgomery County Fire and Rescue Service is to protect lives, property, and the environment with comprehensive risk reduction programs; and safe, efficient, and effective emergency response provided by skilled, motivated, and compassionate **career and volunteer service providers** representing Montgomery County’s diverse population.

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

Guiding Principles: Our Montgomery County Fire and Rescue Service providers will:

- Deliver services to our customers with impartiality and excellence
- Promote the highest standards of safety and welfare
- Serve with integrity and mutual respect
- Recognize the importance of diversity of our workforce and communities
- Promote the efficient and effective utilization of our resources, **and ensure that all organizations and personnel comprising the MCFRS share the responsibility for continuously improving their capabilities, effectiveness, and efficiency**
- Be responsible for the honor of our profession and public service
- **Promote equity and harmony among career and volunteer personnel**
- Maintain and promote open **honest** communication, creativity, and competence
- Be accountable and ethical
- Continuously improve public confidence and trust

SECTIONS 5 and 6

Recommendation 1

Update Recommendation 1A by adding the requirement for an eighth phase of the Station Location and Resource Allocation Study. Phase 8 will address the general area of South Rockville and North Bethesda - including the White Flint, Twinbrook, and Grosvenor Park areas - where urbanization is occurring and additional urbanization is recommended or proposed within M-NCPPC sector plans – some under development at the time this Master Plan Update was written. Phase 8 needs to address an existing gap in 6-minute response coverage within the general area where first-due areas of Stations 5, 20, 23 and 26 converge in the vicinity of the Rockville Pike/Strathmore Avenue and Rockville Pike/Tuckerman Lane intersections.

Recommendation 3

Update Recommendation #3 by inserting subsections “g” through “j” as follows:

- Recommendation 3.g.

The County should establish an interim Travilah Fire Station to serve the Travilah/Traville/Fallsgrove area until the permanent Travilah Station is built and becomes operational on a nearby property within the FY13-14 time frame. Considering the high call load within this area (almost 4200 incidents in FY08) and the inability of existing units from Stations 3, 31, 33, 8 and 28 to reach much of this area within 6-minute response time goals, an interim station is needed by FY11. The envisioned interim station would be located at the PSTA, using the existing infrastructure to the greatest extent possible. One alternative is to use a portion of the PSTA apparatus room to house

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

the interim station's apparatus, with temporary living quarters established in an adjacent trailer or renovated classroom. The interim Travilah Fire Station would be the last function to remain on the PSTA property should the PSTA be relocated during the FY11-14 time frame.

- Recommendation 3.h.

Expand Station 25 to support the recently established special operations capability at the station, making possible the placement of apparatus and equipment related to hazmat, water/ice rescue, high-angle rope rescue, and collapse/confined space/trench rescue inside the station. The improvement of special operations response to the east side of the county is critical, providing personnel and equipment that can stabilize/mitigate incidents of a technical nature before dedicated special teams arrive.

Existing apparatus assigned to Station 25 includes two EMS units (Medic 725, Ambulance 725), an engine (Engine 725), ladder truck (Truck 725), and a battalion chief vehicle (Battalion 704). Station 25 must be expanded to accommodate a third EMS unit (i.e., Ambulance 725-Bravo - an EMS "flex" unit established in FY07) as well as vehicles, equipment, and personnel associated with the special operations capability initiated at Station 25 in FY07.

Presently, Ambulance 725-Bravo ("flex" unit operating 12 hours, 7 days/week) and special operations vehicles (i.e., hazmat support vehicle, rescue boat, collapse rescue reconnaissance vehicle, decontamination equipment, and mass casualty supplies) must be parked/stored outdoors due to lack of bay space inside the apparatus room. Special operations equipment must be stored in several sheds in the rear parking area due to lack of storage space inside the station. This equipment must be pulled outside these temporary structures for critical daily assessments to be performed. An expansion of the station would allow for indoor parking of Ambulance 725-Bravo and special operations vehicles as well as indoor storage of special operations equipment. Moving these vehicles and equipment indoors will allow for quicker special operations response, increased protection of apparatus and equipment from the elements and vandals, more efficient storage and inventorying of equipment, and easier access to apparatus and on-board equipment for the purpose of training, maintenance, and daily equipment checks.

- Recommendation 3.i.

The County must address resource enhancements and associated facility needs within the adjoining areas of Twinbrook, White Flint, and North Bethesda. While current call load and level of risk justify the need for additional resources within this area at present, planned high-density development for Twinbrook and White Flint will create even greater need for MCFRS services in the future and the associated resources to deliver those services. In addition to needs related to call load and risk, there exists a gap in 6-minute response time coverage in the North Bethesda area that must be addressed. The

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

gap includes some or all of four box areas: 20-09, 26-06, 23-03 and 5-03. Generally described, the gap encompasses the Rockville Pike corridor from I-495 to Flanders Avenue (immediately south of White Flint Mall) and the Tuckerman Lane corridor from Gloxnia Drive to the portion east of the Grosvenor METRO Station. Analysis points to the need for additional EMS resources within the Twinbrook/White Flint/North Bethesda area and potentially additional suppression resources.

To address the facility needs associated with additional operational resources, new and/or renovated facilities will be required. Several alternatives must be considered, including the following:

- Alternative A: Expand existing Station 23 by adding a fourth apparatus bay to house an additional (i.e., third) EMS Unit. Space limitations related to the small parcel on which the station now stands will dictate the feasibility of this alternative. If it is feasible to add an additional bay, all on-site parking would be eliminated, and off-site parking would have to be found for station personnel.
- Alternative B: Build an additional station to be located within the North Bethesda area in the vicinity of Rockville Pike and Tuckerman Lane. The station would house an EMS unit and an engine. If sufficient acreage was available, additional bay space could be included for future frontline units (if needed) and/or reserve units. The Station would have a first-due area encompassing the 6-minute gap described above plus adjacent areas in White Flint and Garrett Park Estates. If Station 23 were to be relocated as described below, then the need for a North Bethesda Fire Station might be nullified.

Note: Both Alternatives A and B would need to be implemented in conjunction.

- Alternative C: Relocate Station 23 approximately 1/2-3/4 mile south on or near Rockville Pike. A station with four or more bays could then be built to adequately house all existing and proposed apparatus, including a third EMS Unit. This alternative could nullify the need for a new station in North Bethesda, as it would position EMS and suppression units closer to that area and reduce the gap described above.
- Recommendation 3.j.

MCFRS should continue working with DGS and future co-located departments (MCP, OEM, and DOT) to establish the Public Safety Headquarters adjacent to the Lakelands Community of Gaithersburg at the former General Electric Services building on Edison Park Drive. The joint headquarters will be a viable alternative to the outgrown, obsolete headquarters facilities being used presently by each agency. Relocating these agencies to a joint headquarters would offer the advantages of co-locating public safety functions and associated cost efficiencies. From the MCFRS perspective alone, the new headquarters

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

would allow consolidation of many MCFRS work sites under one roof, thus improving cohesiveness, communication, and cost efficiencies within the department. Occupancy by MCFRS should occur during FY10.

Recommendation 9

Revise the second sentence in the last paragraph to state [revisions shown in boldface]:
“Any future stations beyond these three should be numbered sequentially beginning with **#43** since #40 is assigned to an existing **Sandy Spring Volunteer Fire Department** station and **#41 and #42** have been assigned to the **Bethesda-Chevy Chase Rescue Squad (formerly Rescue Station 1)** and **Wheaton Volunteer Rescue Squad (formerly Rescue Station 2)**, respectively, in accordance with the newly implemented **Council of Governments unit/station numbering system.**”

Recommendation 27

Revise Recommendation #27 by changing the desired aerial unit ratio to two aerial towers for every one tractor-drawn or straight aerial ladder in the frontline aerial fleet.

Recommendation 32

Revise Recommendation #32 to specify the order in which suppression units will receive fourth-person staffing. The specific order reflects a change in strategy brought about by a shortage of paramedics within the department and the subsequent need to maximize the efficient utilization of available paramedics. The new deployment strategy involves the reassignment of one of two paramedics from select medic units to serve as the fourth person (i.e., firefighter-paramedic) on engines located at the same stations. The strategy also involves the assignment of a paramedic to other designated engines located at stations without medic units. Eventually, all engines would have an assigned paramedic (firefighter-paramedic or officer-paramedic) as one of four riding positions on each engine. The strategy addresses both ALS unit deployment as well as increased staffing on suppression units. The new ALS deployment model is described in Recommendation #41 below.

The planned order in which units would receive fourth-person staffing is indicated below. The order could be further adjusted during any given fiscal year to address any emergent factors and circumstances wherein altering the order of units receiving fourth-person staffing would be advantageous.

- Phase 1: Engines 708, 714, 717, 723, 728, 729, and 731, and Aerial Tower 708. This phase was implemented in the 4th quarter of FY07. The fourth person is typically a firefighter-paramedic; therefore these eight engines have the on-board capability to respond as ALS first-responder apparatus (AFRAs) in addition to providing suppression services.

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

- Phase 2:
 - Phase 2A: Fourth-person staffing on Engines 701, 716, 721, and 724 was implemented in September 2007 (1st quarter FY08). The fourth person on each engine is a firefighter-paramedic or officer-paramedic; therefore these four engines have the on-board capability to respond as ALS first-responder apparatus (AFRAs) in addition to providing suppression services.
 - Phase 2B: Fourth-person staffing on Engines 706, 712, 718, and 719 was implemented in September 2008. The fourth person on each engine is a firefighter-paramedic or officer-paramedic; therefore these four engines have the on-board capability to respond as AFRAs in addition to providing suppression services.

- Note: Selection of specific units for inclusion in Phases 3-6 is based upon the following factors supporting various MCFRS staffing strategies:
 - Transition to the “1 and 1” ALS deployment model
 - Provision of tanker drivers (using the 4th person from the engine for infrequent responses of the station’s tanker, if applicable)
 - Provision of additional staffing for special teams/special operations
 - Provision of additional staffing for high call load areas
 - Current level of volunteer staffing on apparatus
 - Staffing levels that will assist the MCFRS in confining structure fires to the room of origin

- Phase 3: The 3rd phase of fourth-person staffing on eight additional engines (potentially including Engines 702, 704, 720, 722, 726, 730, 733 and 734) is planned for implementation - fully or partially - during FY10 and FY11, although fiscal circumstances could delay implementation. Engines having an ALS kit plus a firefighter-paramedic as the fourth person, or an officer-paramedic as one of the four personnel, will have the on-board capability to respond as AFRAs in addition to providing suppression services.

- Phase 4: The 4th phase of fourth-person staffing is planned for implementation – fully or partially - in FY12, although fiscal circumstances could delay implementation. The 4th phase will address a combination of engines, aerial units, and rescue squads, potentially including Engines 710, 711, 713 and 740; Trucks 702, 712 and 731; Aerial Towers 718, 729 and 735; and Rescue Squad 729). Engines having an ALS kit plus a firefighter-paramedic as the fourth person or an officer-paramedic as one of the four personnel will have the on-board capability to respond as AFRAs in addition to providing suppression services.

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

- Phase 5: The 5th phase of fourth-person staffing is planned for implementation – fully or partially - in FY13, although fiscal circumstances could delay implementation. The 5th phase will address a combination of aerial units, a rescue squad, and an engine-tanker (potentially including Trucks 706, 710, 725, and 740; Aerial Towers 719 and 723; Engine-Tanker 709; and Rescue Squad 703).
- Phase 6: The 6th phase of fourth-person staffing is planned for implementation – fully or partially - in FY14, although fiscal circumstances could delay implementation. The 6th phase will address a combination of aerial units, rescue squads, and engines (potentially including Truck 715; Aerial Tower 703; Rescue Squads 715, 717 and 742; and Engines 705 and 715). Engines having an ALS kit plus a firefighter-paramedic as the fourth person or an officer-paramedic as one of the four personnel will have the on-board capability to respond as AFRAs in addition to providing suppression services. Unlike Phases 1-5 where career personnel (with exceptions) would typically staff the fourth position on a 24/7 basis, Phase 6 may rely upon volunteer staffing of the fourth position during nights and weekends, with career staffing Monday-Friday during the daytime. Phase 6 also involves staffing of frontline tankers (i.e., Tankers 704, 709, 714, 717, 722, 730, and 731) with a driver on a 24/7 basis.
- Phase 7, addressing the new position of “Battalion Chief Aide” (i.e., one per battalion) remains as indicated in the existing Master Plan. Implementation of Phase 7 is planned for FY15, although fiscal circumstances could delay implementation.

As phases of fourth-person staffing are implemented, a determination will be made as to whether a reduction in the number of engines assigned to a standard box alarm can be reduced from five to four. With minimum staffing of only three personnel, five engines are needed to bring a minimum of 15 firefighters to the fire scene (or more if volunteer personnel were to provide additional staffing); whereas with four-person minimum staffing, four engines would bring a minimum of 16 firefighters to the fire scene¹ (or more if volunteer personnel were to provide additional staffing).

Recommendation 34

Update this recommendation to indicate that five additional EMS Officer (Captain) positions are needed to deploy one per battalion as recommended, including the recommended 6th Battalion. In FY07 and FY08, MCFRS had three EMS Officers on duty at all times (although two were funded with overtime monies), each assigned

¹ The fifth engine on existing box alarm assignments under the existing 3-person minimum staffing situation is needed primarily for personnel and less so for its pumping capability and hose lines. When 4-person minimum staffing of engines is completed, the fifth engine on standard box alarms may no longer be needed (decision to be made by the Fire Chief).

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

responsibility for ALS/BLS quality assurance for a designated area although permitted to respond elsewhere in the County as needed. While progress in achieving the existing recommendation has occurred, five additional EMS Officer positions are needed, including two that had been funded with overtime monies and one for the recommended 6th Battalion (reference: Master Plan Recommendation #33).

Recommendation 41

Revise Recommendation #41 to indicate MCFRS' new ALS service delivery model involving the use of alternatively-staffed medic units and increased use of ALS first-responder apparatus (AFRA). The department's intent is to implement the "1 and 1" ALS deployment model incrementally, whereby minimum staffing composition of medic units is changed from two paramedics to one paramedic and one Emergency Medical Technician (EMT) - typically a firefighter. The second paramedic position on existing medic units would be reassigned to serve as the fourth position (i.e., firefighter-paramedic) on an engine (or in one case on an aerial unit) at the same station as the medic unit, thus creating an AFRA in addition to the medic unit. The AFRA would typically respond along with that station's medic unit, or another available medic unit, to ALS incidents. This ALS delivery model would provide for the collective response of two paramedics and four EMTs (between the AFRA and medic unit), thus increasing the effectiveness of ALS patient care while also meeting NFPA Standard 1710 staffing requirements for engines with regard to fire suppression.

The "1 and 1" ALS deployment model, which has been implemented successfully at several MCFRS stations to date, accomplishes the following objectives:

- **Increases ALS service delivery to the public:** The 1 and 1 ALS deployment model greatly increases the number of MCFRS units capable of providing ALS services to the public; although only medic units have ALS transport capability. By placing a paramedic (firefighter or officer) on designated engines as the fourth person, these engines can provide ALS service, with transport being provided by an EMS Unit. With a greater number of ALS units (i.e., AFRAs and medic units) in service, ALS response time has improved county-wide.
- **Provides for a more effective utilization of available paramedics:** MCFRS data indicates that on only about 7% of ALS incidents are two paramedics needed for providing patient care during transport. On over 90% of ALS incidents, therefore, the AFRA is able to return immediately to service with four personnel on board, including the firefighter-paramedic or officer-paramedic (i.e., fourth person on AFRA), ready for the next ALS, fire, or other type of incident. On less than 10% of ALS incidents does the AFRA paramedic join the EMS transport unit's

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

paramedic or EMT² in transporting patients to the hospital, while the engine returns to service as a three-person unit, minus the paramedic until that individual returns to the station from the hospital.

- **Provides paramedics with an enhanced opportunity to integrate into fire suppression activity:** This broadens career development opportunities for current paramedics and serves as incentive for more firefighters to become firefighter-paramedics, with the knowledge that they can remain in suppression services while serving as paramedics.

The new model is tied directly to the revised phases of fourth-person staffing of suppression units as described in Recommendation #32 above.

Recommendation 68

Replace the matrix of fire-rescue response time goals on page 5-54 with the attached revised matrix (Figure 5.6). Changes are shown in boldface font. The primary change involves EMS response time goals to reflect the five categories of EMS calls – “Alpha, Bravo, Charlie, Delta, Echo” - used in the Emergency Medical Dispatch (EMD) protocol. Other changes include the addition of response time goals for 5th due engine on box alarms, 3rd due aerial unit on high-rise box alarms, and command officers on major fire-rescue incidents. Another revision involves the performance levels (i.e., percentages) associated with the three density zones, where all urban goals have been changed to the 90% performance level, all suburban goals to the 75% level, and all rural goals to the 50% level for consistency purposes.³ In addition, a column showing corresponding NFPA 1710 response time guidelines has been added for comparison purposes.

One change requiring explanation is the response time associated with the basic life support (BLS) response goal – from 6 to 12 minutes. The increase is due to a philosophical premise: BLS incidents involve non-life threatening occurrences (e.g., sprains, fractures, contusions, unspecified sicknesses, etc.), so a longer response time is acceptable. Because of this, units responding to BLS incidents may, in some cases, not require use of emergency lights and sirens (i.e., travel in routine mode)⁴ which would have the added benefit of a reduction in the number of collisions involving MCFRS apparatus. The increase in BLS response time will also allow for greater emphasis on advanced life support-“ALS” response (e.g., life threatening emergencies such as heart

² If the ALS incident is of the “Charlie”-level, then a BLS transport unit (staffed by EMTs) would transport the patient. If the ALS incident is of the “Delta” or “Echo”-level, then a medic unit (staffed by one paramedic and an EMT driver) would transport the patient.

³ The lone exception is the goal for BLS response where the urban goal is 98%, suburban goal is 95%, and rural goal is 90% due to the increased time associated with BLS response.

⁴ A decision on allowing response of BLS units in the routine mode for certain Alpha and Bravo-level incidents will be determined at a later date by the Fire Chief.

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

attack, respiratory distress, traumatic injury, anaphylactic shock, electrocution, etc.) by the department's limited number of ALS resources. For example, instead of dispatching a medic unit to a BLS incident (when no ambulance is readily available) to meet the existing 6-minute BLS response goal, a distant ambulance could respond to that incident within the new 12-minute goal; thus freeing the medic unit for response to a concurrent or impending ALS incident.

Recommendation 102

Update Recommendation 102 addressing program evaluation to include the new format for performance measures established by County Executive Leggett in July 2007. Beginning on that date, County department heads have been required to have annual performance plans featuring "headline" performance measures that measure a department's performance in providing crucial services to the public. This approach holds the department head accountable for his/her department's performance. The headline measures also assist the department head in focusing the organization and in setting priorities. MCFRS headline measures address response time to ALS and structure fire incidents, heart attack care, fire confinement, reduction in the number of fire casualties, fire and injury prevention, and accreditation compliance. Beginning in FY10, the MCFRS divisions will develop performance measures that support the department's headline measures and MCFRS sections will develop performance measures that support division measures.

Throughout the fiscal year, MCFRS managers must collect and analyze data and other information to determine how well sectional, divisional, and departmental performance measures are being met. Ongoing performance must be communicated not only internally within MCFRS but also to the CAO, County Executive, and the public. The "CountyStat" Program, introduced by the CAO in FY08, serves as an instrument for reporting agency performance to the CAO, County Executive, and the public. Declining performance must be addressed by MCFRS managers, including the identification of causal factors, determination of actions required to turn declining performance into positive performance, and development of an implementation plan (addressing strategies, resource needs, costs, etc.) to implement required actions.

At the end of each fiscal year, MCFRS headline measures must be re-evaluated to determine whether they should remain as written, revised, or replaced with more appropriate measures for the upcoming fiscal year. MCFRS must then re-evaluate its division and section performance measures to determine whether they require revision or replacement based upon any changes made to departmental headline measures for the upcoming fiscal year.

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

Recommendation 104

Replace Recommendation 104 addressing the objective of achieving departmental accreditation from the Commission on Fire Accreditation International (CFAI), as accreditation has since been awarded to MCFRS in August 2007. The new recommendation is that MCFRS remain in compliance with CFAI accreditation requirements through 2012 and then seek re-accreditation status that year as required by CFAI every five years.

To remain in compliance through 2011, MCFRS must submit an annual accreditation compliance report to CFAI each July. Then, assuming that MCFRS is re-accredited in 2012, annual compliance reports would be submitted each year beginning with 2013. The yearly report verifies that MCFRS remains in compliance with core competencies established by CFAI and reflects progress being made in addressing recommendations set forth by the CFAI Peer Assessment Team that evaluated MCFRS during its site visit in April 2007. A fee of approximately \$2000 is due to CFAI annually to cover the organization's administrative costs involved in administering the accreditation program.

MASTER PLAN ADDITIONS

The following new recommendations should be added to the Master Plan:

SECTION 5

Recommendation #105

The MCFRS, in conjunction with the Executive and Legislative branches of County Government, must identify and implement measures to minimize fire risk involving the County's senior population and to reduce the disturbing number of fire-related casualties involving senior citizens.

Between 1997 and 2007, 29 senior citizens (defined as age 65 and over) died in fires in Montgomery County; 41% of 71 fire fatalities of all ages. Between CY04 and CY07, seventeen senior citizens living within the County died in fires, 59% of the 29 fatalities of all ages during that four-year period. These statistics are significant in view of the fact that senior citizens comprised no greater than 11% of the county's overall population between 1997 and 2007. Due to the disturbing trend of fire deaths and injuries involving seniors, the Senior Citizen Fire Safety Task Force was established in 2006 by the County Executive and County Fire Chief and was charged with identifying strategies for minimizing fire risk to senior citizens and reducing the disturbing number of fire fatalities and injuries involving seniors. As prescribed by Executive Order 103-06, the Senior Citizen Fire Safety Task Force was charged with completing its work and submitting a final report to the County Executive by June 2008.

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

It is of the utmost importance that the County and MCFRS find ways to reduce fire risk involving senior citizens because the number of senior residents is projected to increase from approximately 102,000 (10.8% of the county-wide population) in 2005 to 114,330 (11.6% of the county-wide population) by 2010, to 152,650 (14.4% of the county-wide population) by 2020, and to 187,790 (16.5% of the county-wide population) by 2030. Between 2005 and 2030, the senior population is expected to almost double in size (i.e., increase by 85%) compared to an overall population growth (i.e., all ages combined) of about 20%. Absent a significant reduction in fire risk involving seniors, the earlier described upward trend of fire casualties will continue or worsen.

The Senior Citizen Fire Safety Task Force had been addressing this issue before it was elevated within this Master Plan Update as an independent initiative.⁵ The Task Force had been given the responsibility for:

- Identifying strategies to reduce fire risk among senior citizens
- Identifying strategies to reduce fire casualties among senior citizens
- Identifying needed changes to building and fire codes for new and existing structures that incorporate safety features addressing the needs of seniors
- Exploring the addition of a new “independent living” occupancy use group within national building codes/standards and model fire codes/standards
- Identifying off-the-shelf technologies that bridge the gap between new code-compliant residential occupancies and existing non-compliant residential occupancies
- Identifying demographic and community changes that impact the safety of seniors
- Identifying personal and community-based requirements and procedures that seniors and caregivers can practice to increase fire safety

As prescribed by Executive Order 103-06, the Senior Citizen Fire Safety Task Force was charged with completing its work and submitting a final report to the County Executive. Now that the report has been approved, MCFRS and its partner agencies must work diligently to implement the report’s recommendations. Due to the importance of this overall initiative, MCFRS elevated it to high-priority status beginning in FY09, with emphasis placed on establishing programs and processes to implement the Task Force’s recommendations.

⁵ The *Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan*, adopted in 2005, had included fire safety for seniors as part of a larger risk reduction and injury prevention initiative covered in Master Plan recommendations #77 and #78. The seniors’ initiative has been elevated in significance to a stand-alone risk reduction initiative and recommendation to provide needed emphasis.

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

Recommendation #106

The MCFRS must establish a comprehensive methodology and corresponding standard operating procedure (SOP) for the timely transfer of apparatus to address short-term gaps in response coverage resulting from a large-scale incident requiring many apparatus (e.g., apartment fire) or multiple concurrent incidents requiring numerous apparatus (e.g., house fire, PIC with persons pinned, several ALS incidents, several BLS incidents, and a hazmat box -- all occurring simultaneously throughout the county).

Presently, transfer of apparatus during on-going incidents is accomplished at the discretion of the on-duty MCFRS supervisor (i.e., Captain) at the ECC. There is no automated or manual procedure in place to aid the ECC Supervisor in determining which type and number of apparatus to transfer, when to transfer them, and where to transfer them. Delays in filling temporary gaps in response coverage can place large populations and a significant number of properties at substantial risk. This problem can have serious implications when life-threatening incidents occur and apparatus must travel considerable distances from distant stations resulting in response times far exceeding goals.

The up-county area is particularly vulnerable to this capacity problem due to lack of resources and large distances between stations. For example, a “working” house fire in Germantown easily depletes much of the up-county of suppression apparatus considering the initial assignment plus the Rapid Intervention Dispatch and/or an additional alarm. If adequate numbers and types of suppression units are not transferred quickly to several of the vacated up-county stations, a large area containing well over 100,000 people and tens of thousands of occupancies will be placed at higher risk, potentially resulting in severe consequences. Having a comprehensive emergency transfer procedure in place will allow for timely transfer of appropriate apparatus to strategic locations, thus holding risk to acceptable levels.

Recommendation #107

The MCFRS should have adequate resources (i.e., uniformed personnel, apparatus, and equipment) in place at all times to provide an effective response to a “worst credible scenario” of concurrent incidents.

An example of a worst credible scenario is described in Figure 5.8 (see attached). The scenario is comprised of concurrent emergency medical, fire, rescue, and special hazard (e.g., hazmat) incidents. Collectively, these incidents comprise a worst credible scenario for Montgomery County over a two-hour period. This scenario differs from a “worst case” scenario involving a series of infrequently occurring disasters happening concurrently (e.g., tornado, commercial airliner crash, passenger train derailment, building collapse, and terrorist attack – occurring concurrently), collectively having an extremely low probability of occurrence in Montgomery County. In contrast, the worst

2009 UPDATE OF THE FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION MASTER PLAN

credible scenario involves concurrent incidents, most of which – individually - occur on a frequent to moderately-frequent basis in the County. The probability of all these incidents happening concurrently over a two-hour period is relatively low but of much greater probability than a “worst case” scenario. While MCFRS may never have the quantity of resources in place to respond effectively to a worst case scenario (i.e., an acceptable risk), the department should have the resources in place to respond effectively to a worst credible scenario (i.e., an unacceptable risk).

The rationale for having adequate resources for a worst credible scenario is largely one of self-sufficiency in that the County cannot be confident that mutual-aid resources will always be available to assist. Bordering jurisdictions may be stretched thin handling their own concurrent incidents, thus providing few, if any, resources to Montgomery County. Weather events (e.g., winter storms, severe thunderstorms) may also curtail mutual aid response or delay it substantially. Having adequate MCFRS resources for a worst credible scenario also provides MCFRS a better opportunity to meet response time goals during that two-hour period. Figure 5.9 (see attached) indicates the quantity and type of resources required for each incident comprising the “worst credible” scenario. Figure 5.9 also indicates the total number and types of resources required for a “worst credible” scenario.

MASTER PLAN DELETIONS

The following deletion should be made to the Master Plan:

Recommendation #71

Revision of Recommendation #68 (see above) will nullify the need for retaining Recommendation #71, as Recommendation #68 now includes response time goals for command officers. Recommendation #71 can; therefore, be deleted from the Master Plan. This deletion will not result in renumbering of existing recommendations higher than #71. The word “Deleted” should replace the existing language in Recommendation #71.

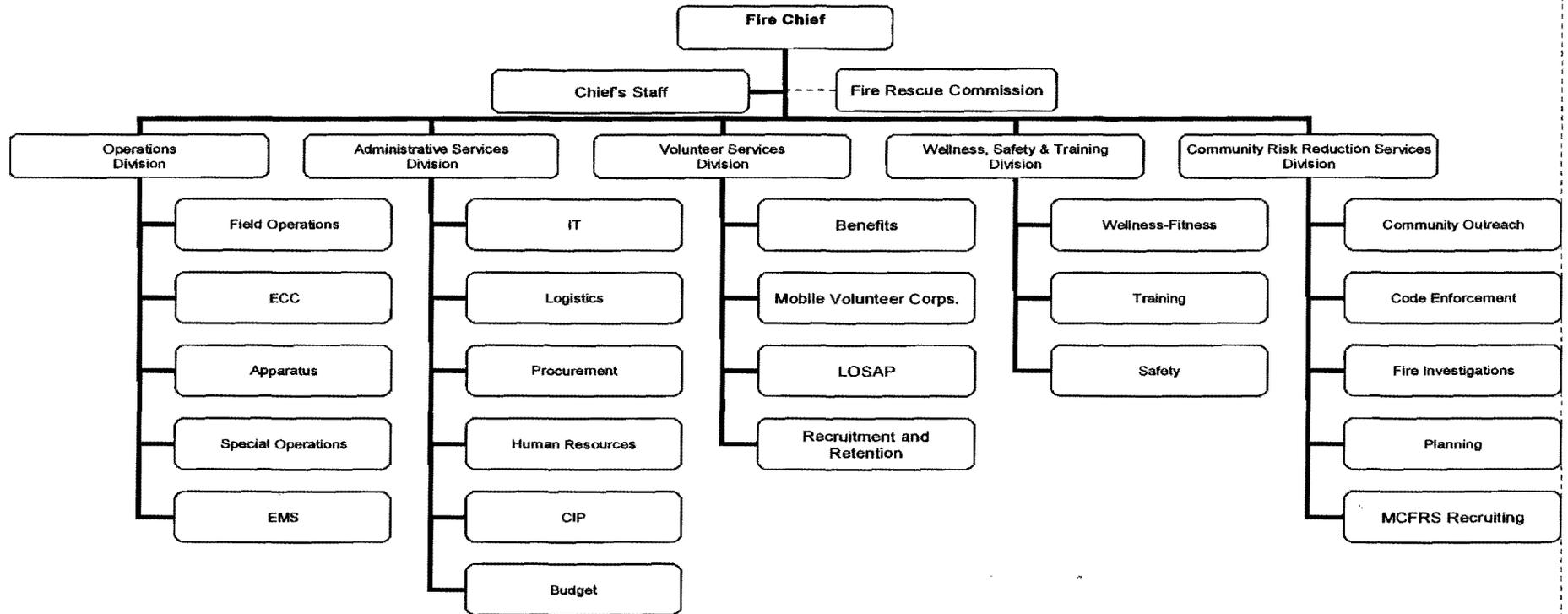
**2009 UPDATE OF THE
FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND
COMMUNITY RISK REDUCTION MASTER PLAN**

ATTACHMENTS

- Figure 2.1** **MCFRS Organizational Chart [Revised]**
- Figure 5.6** **MCFRS Response Time Goals [Revised]**
- Figure 5.8** **Worst Credible Scenario Over Two-Hour Period**
- Figure 5.9** **Apparatus Requirements for Worst Credible Scenario
Over Two- Hour Period**

**2009 UPDATE OF THE
FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND COMMUNITY RISK REDUCTION
MASTER PLAN**

Figure 2.1 - MCFRS ORGANIZATIONAL CHART [REVISED]



**2009 UPDATE OF THE
FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND
COMMUNITY RISK REDUCTION MASTER PLAN**

FIGURE 5.6 – MCFRS RESPONSE TIME GOALS [Revised]

Service	Response Time Goal	Travel Time	Urban Goal	Suburban Goal	Rural Goal	NFPA 1710 Goal
Unit w/AED⁶ to Delta or Echo EMS Incident [New]	6 min	4 min	90%	75%	50%	90%
ALS response⁷ to Charlie, Delta or Echo Incds [formerly “ALS-1st Due”]	8 min	6 min	90%	75%	50%	90%
BLS response⁸ to Alpha and Bravo Incidents [formerly “BLS-1st Due”]	12 min⁹	10 min⁴	98%	95%	90%	N/A
Transport Unit - ALS Patient ¹⁰	10 min	8 min	90%	75%	50%	N/A
1 st arriving Engine to fire	6 min	4 min	90%	75%	50%	90%
2 nd arriving Engine to fire	8 min	6 min	90%	75%	50%	N/A
3 rd arriving Engine to fire	10 min	8 min	90%	75%	50%	N/A
4 th arriving Engine to fire	12 min	10 min	90%	75%	50%	N/A
5th arriving Engine to fire [New]	14 min	12 min	90%	75%	50%	N/A
1 st arriving Tanker ¹¹	8 min	6 min	NA	NA	50%	N/A
2 nd arriving Tanker ¹²	12 min	10 min	NA	NA	50%	N/A
3 rd arriving Tanker ¹³	18 min	16 min	NA	NA	50%	N/A
Extrication ¹⁴	9 min	7 min	90%	75%	50%	N/A
Heavy Rescue ¹⁵	12 min	10 min	90%	75%	50%	N/A
1 st arriving Aerial Unit ¹⁶ to fire	8 min	6 min	90%	75%	50%	90%
2 nd arriving Aerial Unit ¹⁷ to fire	12 min	10 min	90%	75%	50%	N/A
3rd arriving Aerial Unit¹⁸ to fire [New]	14 min	12 min	90%	75%	50%	N/A
Full Assignment - Structure Fire ¹⁹	14 min	12 min	90%	75%	50%	10 mins. - 90%
1st-due Command Officer [New]	10 min	8 min	90%	75%	50%	90%
2nd-due Command Officer [New]	14 min	12 min	90%	75%	50%	N/A

Note A: All stated response times are at X minute, zero seconds. Example: A first-due engine response of 6 minutes (or under) would meet the 6-minute goal, whereas 6 minutes 1 second (and above) would not.

Note B: New or modified goals are shown in **boldface type**.

⁶ Any MCFRS unit having an AED and a minimum of 2 EMT-B or higher level providers to operate it.

⁷ Units with ALS equipment whose combined staffing includes a minimum of 2 EMT-I (or higher level) providers and 2 EMT-B (or higher level) providers. Example: Two-person EMS unit and four-person engine having a combined staffing of an EMT-P, an EMT-I, and 4 EMT-B personnel.

⁸ Unit (e.g., ambulance) having basic life support (BLS) equipment and a minimum of 2 EMT-B or higher level providers. Examples of BLS incidents: strains, fractures, contusions, unspecified sicknesses.

⁹ New (i.e., higher) goal for BLS response to Alpha-, Bravo-, and certain Charlie-level incidents (as determined via Emergency Medical Dispatch protocol) reflects non-life threatening nature of these calls.

¹⁰ Ambulance or medic unit. EMT-P or EMT-I from AFRA will accompany patient to hospital, if required.

¹¹ 1st-due tanker on fires in areas lacking hydrants arrives within 2 minutes of 1st-due engine

¹² 2nd-due tanker's arrival coincides with arrival of 4th-due engine

¹³ 3rd-due tanker arrives approximately 2-3 minutes before 2nd tanker's water is expended

¹⁴ Extrication capable unit – extrication-equipped engine or aerial unit, or heavy rescue squad

¹⁵ Rescue Squad response required

¹⁶ Arrival time of 1st-due aerial unit is in relation to arrival of 1st and 2nd-due engines on box alarms or adaptive responses.

¹⁷ Arrival time of 2nd-due aerial unit is in relation to arrival of 3rd and 4th-due engines on box alarms.

¹⁸ Arrival time of 3rd-due aerial unit (on high-rise box alarms) is in relation to arrival of 5th-due engine.

¹⁹ All initial alarm units due on a standard box alarm, high-rise box alarm or non-hydranted area box alarm.

**2009 UPDATE OF THE
FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND
COMMUNITY RISK REDUCTION MASTER PLAN**

**FIGURE 5.8
WORST CREDIBLE SCENARIO OVER TWO-HOUR PERIOD**

In a “worst credible scenario,” the following types of concurrent incidents might occur over a two-hour period in Montgomery County:

- 4-alarm urban structure fire, or two 2-alarm urban structure fires
- Rural structure fire (in area lacking fire hydrants)
- A personal injury collision on a high-speed highway involving one patient with traumatic injuries (ALS patient) requiring helicopter transport and three patients with non-life threatening injuries (BLS patients) to be transported by ground
- Two personal injury collisions (PICs) on low-speed roadways involving one patient with non-life threatening injuries per PIC
- Seven single-patient ALS incidents, with five requiring AFRA or manpower unit
- Ten single-patient BLS incidents, with two requiring a manpower unit
- Fire incident requiring an adaptive response
- Fire-related service call
- EMS-related service call
- Brush fire in an area lacking hydrants
- Auto fire on interstate highway
- Unknown rescue
- Emergency transport of ALS patient between two hospitals
- Special event standby

**2009 UPDATE OF THE
FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND
COMMUNITY RISK REDUCTION MASTER PLAN**

**FIGURE 5.9
APPARATUS REQUIREMENTS FOR WORST CREDIBLE OCCURRENCE
OVER TWO-HOUR PERIOD**

Incident Type	Engine	Aerial	Squad	Medic	Amb.	Tanker	Brush	Command
4-alarm urban structure fire, or two 2-alarm urban structure fires*	17-18	9-10	5-6	2	4			16
Rural structure fire (in area lacking hydrants)**	7	3	1	1	1	5		6
High-speed PIC: 1 patient w/traumatic injuries, 3 w/lesser injuries	2***		1	1	3			1
2 low-speed PICs: 1 patient w/non-life threatening injury per PIC	2				2			2
7 single-patient ALS incidents, 5 requiring AFRA or manpower	4	1		7				
10 single-patient BLS incidents, 2 requiring manpower unit	1	1			10			
Fire incident requiring an adaptive response	1	1						
Fire-related service call	1							
EMS-related service call					1			
Brush fire in area lacking hydrants	1					1	1	1
Auto fire on interstate highway	2****				2****			
Unknown rescue	1				1			
Special event standby				1	1			
Emergency transport of ALS patient from one hospital to another				1				
TOTALS	39-40	15-16	7-8	13	25	6	1	26

Amb. - ambulance

PIC - personal injury collision

RID - rapid intervention dispatch (i.e., aerial unit, rescue squad, and medic unit)

* Resources include RID following initial alarm assignment

** Resources include RID and Water Supply Task Force

*** Includes a 2nd engine to handle a helicopter standby at a nearby landing zone

**** Includes an engine and ambulance dispatched to each of opposing traffic lanes (e.g., inner-loop and outer-loop of I-495)