SECTION 7

STRATEGIC PLAN FOR THE IMPLEMENTATION OF FIRE, RESCUE, EMS, AND COMMUNITY RISK REDUCTION MASTER PLAN PRIORITIES

INTRODUCTION

This Strategic Plan addresses the implementation of the MCFRS' **highest priorities** as recommended in this *Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan* that require initiation or full implementation between FY06-07. These highest priorities focus on urgently needed facilities; apparatus, equipment, and staffing needs; firefighter-rescuer wellness and safety; planning initiatives; water supply enhancements; Class A and B foam capabilities; department accreditation; and improvement (i.e., reduction) of the County's fire protection rating issued by the Insurance Services Office (ISO). Also included within this Strategic Plan are **cost estimates** for implementation.

A quick-reference list of the MCFRS' highest priorities, as recommended in the Master Plan, is provided below. A discussion of the implementation of these highest priorities and their fiscal impact follows the quick-reference list. While full implementation of many of these priorities must occur within the FY06-07 time frame to meet external and internal customers' needs, some priorities will take longer to fully implement but must be initiated in the FY06-FY07 time frame.

Master Plan priorities address the County's most urgent fire, rescue, and EMS needs, including additional stations, timely apparatus replacement and maintenance, central warehouse and central maintenance facilities, deployment of new or additional services in key locations, four-person staffing on suppression and rescue apparatus, firefighter-rescuer wellness and safety, planning for future stations and resources, implementation of recommendations from recent deployment studies, relocation of Station 18, as well as departmental accreditation and reduction of the County's ISO rating. Priorities are interrelated and fall into a natural progression based on immediate needs. In addressing these priorities, the MCFRS will address facility and resource needs, improved capability to meet response time goals and the provisions of NFPA Standard 1710, improved functionality and reliability of the apparatus fleet, and improved capability to deliver efficient and effective emergency services. In addition to improved service delivery, implementation of these high-priority recommendations will assist the MCFRS in achieving healthier and safer firefighter-rescuers, department accreditation, and will likely help in achieving a reduced ISO rating.

This Strategic Plan is presented in two sub-sections. Sub-section I is an overview of the highest priorities identified in the *Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan*. Sub-section II addresses implementation of the high priority recommendations from the Master Plan and associated cost estimates.

SUB-SECTION I

OVERVIEW OF HIGHEST PRIORITY MASTER PLAN RECOMMENDATIONS

1. **On-going up-county CIP projects:**
   - "Germantown West" station – Completion in FY07
   - "Travilah" station - Completion in FY08
   - "Germantown East" station - Completion in FY08
   - Clarksburg station – Establish (in FY06) and operate an interim fire-rescue station in Clarksburg until the permanent station is completed (scheduled for FY09). Coinciding with the opening of the interim station should be the establishment of the MCFRS' 6th Battalion at an appropriate up-county location, plus the creation of a Battalion Chief position on a 24/7 basis for the new battalion.

   Importance of Recommendation: The importance of these four stations opening over the next four fiscal years cannot be overstated. These stations will help the MCFRS catch up to the service demand created by intense growth in the up-county area. Over the past 25 years, the County has not added a single new station, leading to significant deficiencies in MCFRS' ability to provide timely fire-rescue service within the up-county, particularly the Germantown, Clarksburg, and Travilah-Traville areas. The new stations and associated apparatus and staffing will assist the MCFRS in meeting the modified response time goals appearing in Figure 5.6. The newly deployed apparatus at these stations will result in a higher percentage of residents who can be reached within the stated time frames addressed in the goals.

   MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #3 (pertaining to adequate facilities, apparatus, equipment, and personnel to effectively and efficiently deliver emergency services) and Goal #12 (pertaining to the process of establishing and implementing CIP projects) appearing in Section 2 of this Master Plan.

2. **Implementation of the initial phases of the Apparatus Management Plan, including the following facility and resource requirements:**

   a. Replacement of apparatus due for replacement, and purchase of specialty units (e.g., foam attack/engine-tanker)

b. MCFRS maintenance facilities[1] -- near-term and long-term
c. Maintenance staffing and training needs
d. Apparatus records management system
e. Parts inventory
f. Other fleet maintenance needs
g. Fuel management system
h. Class A and Class B foam capability
i. Fully-equipped ready-reserve vehicles

Importance of Recommendation: The importance of initiating these initial phases of the *Apparatus Management Plan* is paramount to the MCFRS being physically capable of delivering emergency services via efficiently-operating, capable, and dependable apparatus and equipment. Minus these enhancements, the MCFRS fleet will continue to experience frequent apparatus breakdowns, and the MCFRS will lack the ability to operate at maximum effectiveness and efficiency regarding emergency response and incident operations.

MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #3 (pertaining to adequate apparatus, equipment, facilities, and personnel to effectively and efficiently deliver emergency services).

3. **Conduct additional phases of the Station Location & Resource Allocation Study:**

- Phase 3 - Shady Grove, King Farm, and Derwood areas
- Phase 4 - Northeast quadrant of County (primarily, the first-due areas of Stations 4, 13, 17, and 28), including the Route 27 corridor north of Brink Road, 108 corridor between Routes 97 and 650, and Route 124 corridor north of Snouffer School Road
- Phase 5 - Eastern area of County, with emphasis on the Route 29 corridor north of University Boulevard
- Phase 6 - Western area of County, west of Stations 9, 22 (Germantown West), 30, 31, 33, and 35 (Clarksburg)
- Phase 7 - Norbeck Road corridor east of Gude Drive

[1] The two satellite maintenance shops recommended in the Apparatus Management Plan will be addressed at a later date.

Importance of Recommendation: Completing Phases 3-7 of this study as quickly as possible is of great importance, enabling fire-rescue needs of these yet-to-be-studied areas to be identified and documented. The ensuing reports will also recommend the need for new or relocated facilities, apparatus, and equipment; need for additional staffing; and the siting and deployment of future facilities and resources. These studies/reports will serve to justify MCFRS requests for new CIP projects and resources, as well.

MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #11 (pertaining to comprehensive planning to identify future resource and programmatic needs of the MCFRS and its external customers).

4. **Enhance the Wellness-Fitness and Safety Programs as follows:**

- Add three Safety Captain positions to the MCFRS Safety Office
- Upgrade the Fire-Rescue Occupational Medical Section (FROMS) Battalion Chief position to the Assistant Chief level
- Add two Grade 23 Nurse Clinician positions at the FRTA
- Add a Licensed Clinical Social Worker III position at FROMS
- Add funding for annual physicals for all volunteer operational personnel

Importance of Recommendation: Implementation of this high-priority recommendation will greatly improve the overall wellness and safety of both career and volunteer firefighter-rescuers. By adding or upgrading these positions, the department will be in much better position to enhance the safety and wellness of its most important asset – its personnel. Without these enhancements, substantial deficiencies will continue to exist in the department's ability to ensure the well-being of its firefighter-rescuers as they perform their dangerous, strenuous, and emotionally-taxing duties.

MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #7 (pertaining to strategies to improve occupational safety and to improve the health and wellness of MCFRS personnel).

5. **Shady Grove Station:** Insert in the FY07-12 CIP a 5-6 bay fire-rescue station within the Shady Grove area, at or in the vicinity of Shady Grove Road and Route 355. The station should have expanded quarters, office space, and bay space to accommodate assigned firefighter-rescuers, Duty Operations Chief, EMS Supervisor (position proposed in this Plan), Fire & Explosive Investigations personnel, Bomb Squad personnel, drivers of specialty units, and the following apparatus: suppression apparatus, EMS unit(s), ready reserve apparatus, and specialty units including several

or all of the following: Bomb Squad vehicles, up-county hazmat unit, MCFRS Command Post unit, air unit, decontamination unit(s), EMS bus.

Importance of Recommendation: Adding this station to the FY07-12 CIP will allow this strategically-important facility to open within the next 6-8 years. The personnel and apparatus to be assigned to this station will serve not only the immediate Shady Grove area with typical fire-rescue services but, due to its central location and access to major north-south and east-west highways, will also serve the entire County with specialized services of a disaster response and homeland security nature. Without this facility, six-minute response time for first-due EMS and fire suppression services cannot be achieved within the Shady Grove-King farm area, and specialty units that serve the entire County would continue to be housed (out of necessity) at non-centralized locations, adversely impacting their response times throughout much of the County.

MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #3 (pertaining to adequate facilities, apparatus, equipment, and personnel to effectively and efficiently deliver emergency services).

6. **Warehouse:** Establish and operate a MCFRS central warehouse (leased or County-owned) for storage and distribution of all commonly-used MCFRS equipment, supplies, protective gear, and clothing

Importance of Recommendation: As of 2005, the MCFRS lacked a warehouse to store all of its equipment, supplies, uniforms, other clothing, protective gear, etc. Uniforms, gear, and other clothing are stored in two locations that are grossly undersized. Equipment and supplies are stored in a decentralized manner at over 40 work sites. A warehouse of approximately 50,000-60,000 square feet would allow storage of all stock under one roof, operated by dedicated warehouse personnel running a centralized facility, which should result in a long-awaited, cost-effective warehousing operation to serve a large and growing department.

MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #3 (pertaining to adequate facilities, personnel, apparatus, and equipment to effectively and efficiently deliver emergency services) and Goal #12 (pertaining to the process of establishing and implementing CIP projects).

7. **New Services/Units:** Establish additional EMS units at the following locations (presented in priority order) to address increased service demand, to better meet response time goals, and/or to relieve existing EMS units that have exceeded the recommended threshold level of 2500 calls per year:

- Station 8 –2nd Medic unit, with guaranteed 12-hour/day staffing (e.g., 9 am-9 pm)
- Station 25–2nd Medic unit, with guaranteed 12-hour/day staffing
- Station 3 –2nd Ambulance, with guaranteed 12-hour/day staffing
- Station 19 - Ambulance, with guaranteed 24/7 staffing
- Station 15 - Ambulance, with guaranteed 24/7 staffing
- Station 21 – Upgrade Ambulance-219 to Medic-219, with guaranteed 24/7staffing

In addition, establish "community resource units" (i.e., community resource engine and community resource medic unit), staffed 24/7, for the purposes of: 1) temporarily filling in at stations where similar units are committed on long duration incidents or long duration details outside their first-due area; 2) assisting with community outreach/public education events; 3) providing a reflex capability when additional units are required on major incidents (e.g., multi-alarm structure fire). Initially, these two units would serve countywide; however, the long-term strategy is for two community resource units to be assigned per battalion.

Importance of Recommendation: Considering the heavy and growing demand for EMS services in the County, the MCFRS' inability to meet most of the County's EMS response time goals, and the number of EMS units exceeding the threshold level of 2500 responses per year, it is extremely important that additional EMS units be deployed in these strategic locations. Likewise, it is important that community resource units be deployed to provide temporary fill-ins, a reflex capability, and an effective means for achieving community outreach.

MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #3 (pertaining to adequate apparatus, equipment, personnel, and facilities to effectively and efficiently deliver emergency services).

8. **Implementation of recommendations in the 2001 Aerial Unit Study and 2004 Rescue Squad Study, as approved by the FRC:**
   - Establish aerial unit service at Stations 13 and 40, with guaranteed 24/7 staffing
   - Achieve an aerial unit fleet having an equal percentage (i.e., 50%/50%) of tower ladders and tractor-drawn aerial units
   - Implement the six heavy rescue squad deployment strategy, with Rescue Squads 3, 15, 17, 18 (or 19), 28 (or 29), and 291 serving as the six heavy rescue squads
   - Establish extrication-capable units at Stations 4, 13, 30 and 31[2]
   - Implement new training requirements for personnel comprising minimum staffing on rescue squads
   - Achieve 4-person minimum staffing on rescue squads and aerial units[3]

[2] Other extrication-capable units recommended in the Rescue Squad Study are presently in service, including Trucks 2 and 12 and Rescue Engines 92 and 143.

Importance of Recommendation: Implementing the deployment and training strategies recommended in these two studies will provide timely aerial unit service to populated areas of the County currently lacking this level of service, and will result in a more efficient manner in which to provide extrication and heavy rescue services throughout the County.

MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #3 (pertaining to adequate apparatus, equipment, personnel, and facilities to effectively and efficiently deliver emergency services).

9. **Four-Person Staffing:** Implementation of Phase 1 of the multi-phase strategy to achieve 4-person staffing on engines, aerial units, and rescue squads throughout the County. Phase 1, to be initiated in FY07 (assuming funds are appropriated), calls for 4-person staffing on 8 engines at stations located along the County's periphery.

Importance of Recommendation: Increasing minimum staffing on engines, aerial units, and rescue squads to four personnel is vitally important to improving the effectiveness and efficiency of these units and to improving safety of firefighter-rescuers. [The importance of 4-person staffing is fully explained in Section 4 of this Master Plan.] This first phase of seven addresses the rural portion of the County where 4-person staffing will have its largest impact due to the distance that 2nd-due apparatus must travel to provide additional personnel to initiate safe and effective operations.

MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #3 (pertaining to adequate personnel, apparatus, equipment, and facilities to effectively and efficiently deliver emergency services).

10. **Implementation of 2000 Water Supply Study recommendations and Class A and Class B foam strategies:**
    - Replace frontline pumpers with CAFS-equipped pumpers
    - Deploy a foam response capability (i.e., foam attack units and frontline engines carrying Class foam) with combined inventory of at least 2000 gallons of Class B foam concentrate, and related turrets, proportioners, eductors, nozzles, etc.
    - Achieve fire flow requirement of at least 500 gpm for initial 30 minutes of all structure fires
    - Standardize hose appliances on all engines, engine-tankers, and quints
    - Continue purchase of 1500-gpm pumpers and 3500-gallon tankers
    - Achieve full complement of equipment on all reserve apparatus

[3] While 4-person engines are not addressed in these two studies, they are recommended in this Master Plan.

- Continue establishing ISO-certified drafting points
- Retrofit non-sprinklered high-rise residential buildings
- Expand installation and use of dry hydrants
- Encourage the expansion and looping of water mains (by WSSC) in Clarksburg and Damascus
- Implement tactical use of dry vertical standpipes along limited-access highways (assuming these standpipes are eventually installed along State highways by the State Highway Administration)
- Coordinate maintenance of standpipe connections through highway sound barriers

Importance of Recommendation: Implementing the remaining enhancements recommended in the 2000 Water Supply Study will greatly improve the MCFRS' capabilities to suppress fires in areas lacking fire hydrants, along limited-access highways, in residential high-rises, and in other types of occupancies throughout the County. The result will be faster fire extinguishment, reduced property damage, and, undoubtedly, less fire fatalities and injuries.

MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #3 (pertaining to adequate apparatus, equipment, personnel, and facilities to effectively and efficiently deliver emergency services).

11. **Accreditation and ISO Rating Improvement:** Service improvement and reduced property insurance premiums through departmental accreditation and improvement of the County's ISO rating.

Importance of Recommendation: Achieving departmental accreditation and reduced ISO ratings for the County will lead to improved services and reduced property insurance premiums. Accreditation will result in the MCFRS becoming a much improved organization better able to meet the needs of its customers, and ISO rating improvements will result in reduced property insurance premiums for many property owners throughout the County.

MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #3 (pertaining to adequate apparatus, equipment, personnel, and facilities to effectively and efficiently deliver emergency services) and Goal #9 (pertaining to establishing an organization-wide program of evaluation to determine how well MCFRS goals and objectives are being met and to also measure the department's performance and progress).

12. **Relocation of Station 18:** Relocation of FS18 and the likely need for operating an interim station[4], in relation to the State Highway Administration's project time line for a grade separation of the Georgia Avenue/Randolph Road intersection

Importance of Recommendation: In relation to the eventual need to move this station due to the planned highway project, it is imperative that Station 18 be relocated to a site that will allow its resources to best serve the community. To achieve this objective, the new station will need to be in close proximity to the existing station, as that location has been ideal from a service delivery standpoint for over five decades. Timing of the station relocation is dependent upon the highway project being funded and initiated by the State.

MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #3 (pertaining to adequate facilities, apparatus, equipment, and personnel to effectively and efficiently deliver emergency services) and Goal #12 (pertaining to the process of establishing and implementing CIP projects).

13. **Battalion-Based Resources:** The MCFRS should establish battalion-based resources to improve effectiveness and efficiency of its operations/services through improved supervision, increased quality assurance oversight, and strategic deployment of specialized staff and apparatus. Battalion-based resources should include, but not be limited to, the following:

    - EMS Supervisor
    - Fire Code Enforcement Inspectors
    - Community Resource Units
    - Battalion Chief Aide
    - Training Officer

Importance of Recommendation: This recommendation is important to the MCFRS' capability to deliver timely and appropriate emergency and non-emergency services to its customers. Presently, the MCFRS has only one EMS Supervisor per shift to cover the entire County, fire code enforcement personnel crisscrossing the County performing inspections, a limited number of training officers who must coordinate training for all MCFRS personnel from the FRTA, and no Battalion Chief Aides or Community Resource Units. Establishing these services and positions at the battalion level will allow for better EMS supervision and quality assurance; more efficient use of code enforcement

[4] A temporary station, or an alternate interim solution for service, will be required if the new station is not completed by the time SHA must demolish the existing station to begin the road construction project.

personnel; and the addition of a Community Resource Unit to assist with community outreach and apparatus deployment needs, a Battalion Chief Aide to maximize the effectiveness of the Battalion Chief, and a Battalion Training Officer to coordinate FRTA -required and battalion-specific training for all battalion personnel.

MCFRS Goal(s) Achieved: Implementation of this recommendation will help the MCFRS in achieving Goal #3 (pertaining to adequate personnel, apparatus, equipment, and facilities to effectively and efficiently deliver emergency services) and Goal #4 (pertaining to current and projected needs for career and volunteer leadership and workforce development, including adequate training programs).

SUB-SECTION II

IMPLEMENTATION AND FISCAL IMPACT OF HIGHEST PRIORITY MASTER PLAN RECOMMENDATIONS

While detailed justification for all priorities is provided in Sections 4-6 of the *Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan*, a brief description of each priority is presented below, including cost estimates of implementation.

Priority #1. On-going Up-County CIP Projects

The #1 MCFRS priority is on-going up-county Capital Improvements Program (CIP) projects, including the "Germantown West" station to be completed in FY07, "Travilah" and "Germantown East" stations to be completed in FY08, and Clarksburg station to be completed in FY09.

All four facilities were recommended in the *Station Location and Resource Allocation Study – Phase 1* approved by the Fire and Rescue Commission in 1999, and adopted by the County Council in 2000 in the form of amendments to the existing *Fire, Rescue, and Emergency Medical Services Master Plan*. These facilities are imperative to the MCFRS meeting the present and future fire, rescue, and EMS needs of residents and businesses in the fast-growing up-county areas of Germantown, Clarksburg, and the Traville/Travilah /Fallsgrove area.

Considering the rapid rise in population and building density in the developing Clarksburg Town Center and adjacent neighborhoods, MCFRS must establish and operate an interim fire station in Clarksburg until the permanent station is completed in FY09. The faster than anticipated pace of development in Clarksburg has led to the immediate need for fire, rescue, and EMS services for residents and businesses. Without these services available in Clarksburg until FY09, residents and businesses would be served by surrounding stations in Hyattstown, Germantown, and Damascus. Due to the distance between Clarksburg and these stations, response time goals would not be met in Clarksburg, as the population continues to increase and development becomes denser. The incident call load for the surrounding stations would increase sharply, as well, resulting in units from these stations being less available for calls in their own first-due areas. The interim station should be established in FY06 and house an engine (or engine-tanker) and an EMS unit (type to be determined) and be staffed by 6 personnel around the clock (i.e., 4 on engine, two on EMS unit).

Coinciding with the opening of the Germantown West fire-rescue station should be the establishment of the MCFRS' 6th Battalion at an appropriate up-county location. The 6th Battalion will be needed to effectively manage the addition of five new up-county stations (i.e., Clarksburg, Germantown West, Germantown East, Travilah, and Shady Grove), which will better serve both the department and its customers. Existing Battalion 3 (covering Rockville, N. Potomac, Germantown and the western County) and Battalion 5 (covering Gaithersburg, Damascus, Hyattstown and Laytonsville) will not be able to accommodate the new stations, as Battalions 3 and 5 would become unmanageably large. Concurrent with the creation of Battalion 6, the **MCFRS must create and staff a career Fire-Rescue Battalion Chief position for that battalion on a 24/7 basis**.

Cost Estimates (not including land):

- Germantown West: $6.96 million (as appearing in the FY05-10 CIP)
- Travilah: $4.7 million (as appearing in the FY05-10 CIP)
- Germantown East: $9.36 million (as appearing in the FY05-10 CIP)

- Clarksburg:
  - Permanent station: $8.28 million (as appearing in the FY05-10 CIP)
  - Interim station: Interim fire-rescue service to Clarksburg will be provided from a leased site on Gateway Center Drive. Leasing costs will be $___TBD__ annually, and $___TBD___ will be required for interior modifications to the facility and related set-up costs. Staffing costs will be about $2.9 million annually. Note: During the first quarter of FY06, the County Council approved a supplemental appropriation to, in part, fund interim fire-rescue service within Clarksburg, including funding to staff an EMS unit and engine on a 24/7 basis and associated operating expenses for FY06. $1.46 million of the total appropriation covers staffing and operating costs for the latter half of FY06 when the interim station will become operational.

- 6th Battalion: Total cost of $907,602 including $734,774 for Battalion Chief staffing, $75,000 for a Battalion Chief's vehicle, and $97,828 for operating expenses.

Priority #2. Implementation of the initial phases of the *Apparatus Management Plan*

The second-highest priority of the MCFRS is **apparatus management**. Aged, high-mileage apparatus and inconsistent maintenance practices have led to **frequent breakdowns** of frontline and reserve apparatus. While the problem affects all breeds of apparatus in the MCFRS fleet, aerial units, engines, and rescue squads are plagued by the most frequent and debilitating vehicle performance and safety problems due to excessive age and high mileage. Aerial units have been impacted greatest, to the point where it is difficult at times to meet the minimum daily requirement. While the *Apparatus*

Management Plan, summarized in Section 5, addresses all aspects of apparatus maintenance, replacement, record-keeping, and other elements of fleet management, **priority #2 of this Strategic Plan focuses on desperately-needed apparatus, facilities, and equipment that will help address the most urgent apparatus-related problems facing the County**.

►NOTE: The *Apparatus Management Plan* must be updated annually to adequately reflect the ever-changing needs of the MCFRS apparatus fleet because of the dynamic nature of fleet and equipment maintenance and replacement needs.

a. Apparatus Replacement/Purchase:

The updated Apparatus Management Plan's apparatus replacement/purchase schedule calls for lease-purchasing **the following 73 units between FY06 and FY07, with lease payments in FY07 of $4.36 million and continuing through FY12, totaling $22 million between FY07 and FY12.**

- 36 engines[5], including compressed-air foam systems, foam proportioners, Class A and Class B foam concentrate, and all other portable equipment, including hose, nozzles, and appliances
- 15 EMS units
- 8 aerial units
- 7 brush trucks/mini-pumpers
- 3 rescue squads
- 2 hazmat units
- 2 foam attack/engine-tankers[6], including 1000 gallons of Class B foam and all equipment. [Note: Grant monies awarded to MCFRS will be used to purchase one of these units.]

It is important to note that apparatus replacements are not one-time purchases. Apparatus must be replaced at regular intervals in accordance with the MCFRS apparatus replacement plan, based upon National Fire Protection Association guidelines.

b. MCFRS Maintenance Facilities:

It is envisioned that the proposed **central maintenance facility** would handle all major repairs of apparatus and equipment and could also handle complex preventative maintenance. For this facility to best serve its customers, it should be **located as close to**

[5] Five of the engines will be configured and outfitted as rescue engines to serve as extrication-capable units

[6] This specialized unit will combine three types of units into one – a Class B foam attack unit (for flammable liquid spills/fires), a bulk Class B foam carrier, and a 2500-3000 gallon water tanker.

the County's geographic center as possible, so that no unit in need of repairs or servicing must travel across the entire width or length of the County to reach the facility. The **two satellite maintenance shops**, to be located elsewhere in the County, are also recommended in the *Apparatus Management Plan* but will be addressed in future editions of this Strategic Plan when they become high priorities. The satellite shops will handle minor repairs and all but the most complex preventative maintenance. Candidate sites for maintenance facilities include the proposed site in Clarksburg for the North County Depot, and/or the County Services Park that may be relocated in accordance with land-use recommendations of the Shady Grove Sector Plan.

In the immediate future, and until a central maintenance facility is established, MCFRS will utilize about one-quarter of its leased warehouse space to store a portion of the equipment and supplies that will support the fleet management and maintenance function. To facilitate this particular storage activity, the warehouse will require outfitting (i.e., storage racks, bins, etc.) in the first quarter of FY06.

Cost Estimate: In accordance with the Apparatus Management Plan, a consultant was hired (at a cost of $205,000 during FY05-06) to develop recommendations for the equipment, systems, and facilities to be included in each of the proposed maintenance facilities, the required square footage for each facility, and a cost estimate for each. $50,000 will be needed to facilitate use of MCFRS' leased warehouse for storage of fleet management and maintenance equipment/supplies.

c. Maintenance Staffing and Training Needs:

To keep pace with MCFRS fleet maintenance needs, maintenance capacity must be increased significantly and quickly. **6-8 additional mechanic positions, or equivalent contracted services, are needed in FY06**. If contracted services are procured, the plan would be to eventually transfer those short-term services to fulltime County positions for the long-term. In addition to vehicle maintenance, these mechanics, or contract services, will be responsible for ambulance cot maintenance and the testing (actual testing or oversight of testing contractors) of hose, ground ladders, aerial ladders, and pumps (i.e., pumps mounted on suppression apparatus). The additional mechanics will make possible much needed **extended hours of operation** (i.e., double shifts per day or 24-hour operations) at maintenance shops having the highest workload.

Along with the hiring of a **Heavy Equipment Coordinator** and a **Fiscal Assistant** in FY06, a **Parts Coordinator** and a **Potable Equipment Mechanic** will be required by the 4th quarter of FY06 (i.e., one-quarter year funding for both positions). The latter two positions will handle the maintenance requirements of all MCFRS portable equipment, including LFRD-owned portable equipment. All four positions must become continuous fulltime positions thereafter. In addition, overtime costs are anticipated for the implementation of fleet management activities in FY06-07. All fleet management

/maintenance staff will require **continuous training** to perform their duties effectively and efficiently.

Cost Estimate: Staffing costs, including overtime costs and Heavy Equipment Coordinator position, will be $696,973 in FY06. Training costs will be $25,000 in FY06.

d. Apparatus Records Management System (RMS):

As recommended in the updated *Apparatus Management Plan,* the MCFRS must purchase a **RMS for apparatus management** and hardware on which to operate it. The **"FASTER" System**, proven software used by the County's DPWT, has been chosen for this purpose. While the system will offer many benefits, the most important will be the capability to flag when each vehicle is due for preventative maintenance and to record the maintenance performed. FASTER also includes an inventory management module.

Cost Estimate: $163,000 for first year (FY06) set up and licensing costs. Recurring maintenance costs thereafter are unknown at this time.

e. Parts Inventory:

As recommended in the updated *Apparatus Management Plan,* the MCFRS must purchase a **parts inventory** for maintaining the apparatus fleet. Stocking and dispensing of parts will be an integral component of a comprehensive and efficient apparatus maintenance program. A stand-alone parts inventory management system will not be needed, as the FASTER System (see above) has an inventory management module.

Cost Estimate: $250,000 in FY06; additional costs to be determined for the out years

f. Other Fleet Maintenance Needs:

In addition to the parts inventory described above, other needs of the MCFRS fleet /equipment maintenance function include **diagnostic tools, testing equipment/tools, and a road service vehicle**. The vehicle will provide services to MCFRS apparatus that need assistance along the highway or at incident scenes. It will be equipped with an air compressor, generator, welding equipment, engine fluids, lights, a boom for lifting heavy items, and related equipment and supplies. Another urgent need is to move the existing maintenance shop from Station 3 to another facility within the Rockville area to better serve MCFRS fleet maintenance needs and to facilitate greater bay space for Station 3's large fleet of apparatus.

Cost Estimate: $207,500 in FY06 for the tools, testing equipment, and road service vehicle; operational costs to be determined for out years. An estimated $300,000-$500,000 is needed in FY06-07 to move the maintenance shop from Station 3 to Station 31. Note: As part of a special appropriation, $80,000 in funding was appropriated for the

road service vehicle; however, additional funding of approximately $50,000 will be required to purchase a suitable vehicle.

g. Fuel Management System:

A MCFRS fuel management system must be established to record all fuel as it is dispensed from fueling stations. A **"fuel ring" system** is recommended that automatically records the amount of fuel being dispensed as well as the unit's mileage at time of refueling. This data will allow fleet management staff to track each unit's fuel consumption and mileage, which can be used in determining frequency of fuel deliveries, money spent on fuel, and can also be used to predict when units will require preventative maintenance based upon mileage. Through FY05, fleet-wide vehicle operational data for individual MCFRS units, such as miles traveled and fuel consumption, was unknown.

Cost Estimate: Cost of the fuel management system to be determined. Fuel costs themselves are to be determined also, since total annual fuel consumption within MCFRS is unknown at present due to inconsistent record keeping and lack of reliable data. While $354,890 was appropriated by the County Council to address MCFRS' FY06 fuel costs, additional funding [amount to be determined] will be needed to cover estimated fuel costs through the end of FY06. Recent analysis revealed that MCFRS' monthly fuel consumption is much higher than previously thought, and coupled with escalating fuel costs, it is clear that additional funding will be required for fuel in FY06.

h. Class A and Class B Foam:

To implement the MCFRS Class A foam strategy, **each new engine will carry 50 gallons of Class A foam concentrate** in a dedicated foam cell. This foam cell will supply the on-board CAFS system. A total of 1800 gallons of Class A foam concentrate is needed County-wide, plus 500 gallons in storage to be used for training purposes and for replacement of Class A foam used at incidents.

To implement the MCFRS Class B foam strategy, **each of the two future foam attack engine-tankers will require 500 gallons of Class B foam concentrate** to be stored in the unit's dedicated foam tank. In addition, **each MCFRS frontline engine will carry 30 gallons of Class B foam** concentrate. County-wide on-board Class B foam capability will be 2080 gallons, plus 500 gallons in storage to be used for training purposes and for replacement of Class B foam used at incidents.

Cost Estimate: The cost of Class A foam for 36 replacement engines is included in the cost estimate for engines' replacement (see above). An additional $13,500 is needed to purchase 500 gallons of Class A foam to be kept in storage. The cost of Class B foam for the two foam attack/engine-tankers is included in the above cost estimate (see Priority 2a). Additionally, $13,500 is needed to purchase 500 gallons of Class B foam for storage.

i. Fully-Equipped Ready-Reserve Vehicles:

As recommended in the updated *Apparatus Management Plan,* the **MCFRS must ensure that its ready-reserve units are fully-equipped**, so that they may be placed in service quickly during major crises when additional units are needed to meet extraordinary service demand.

Cost Estimates for Equipping Ready Reserve Units:

Units to Equip In FY06	Equipment Costs/Unit	Total Costs
10 engines	$ 72,000	$720,000
5 aerial units	$ 127,000	$635,000
1 rescue squad	$ 177,000	$177,000
Total: 16 units	-	$1.53 million

Note: The number of fully-equipped ready reserve EMS units has not been determined, however, a significant number is anticipated for response to mass casualty incidents (e.g., terrorist incidents, transportation incidents, etc.)

Priority #3. Phases 3-7 of Station Location & Resource Allocation Study

The third highest priority of this Strategic Plan is for the MCFRS Planning Office to **complete the remaining phases of the Station Location and Resource Allocation Study** begun in 1998. By completing Phases 3-7, all portions of the County requiring new station facilities and/or additional major resources will have been studied. The purpose of the overall study is to identify present and future service needs of MCFRS' customers and to recommend the optimal siting of new and/or relocated stations and the deployment of resources to meet anticipated service needs. The results of these studies will be used to justify anticipated requests for additional fire-rescue stations, personnel, apparatus, and equipment in future CIP and operating budgets. Areas to be addressed in Phases 3-7 of the study are identified below.

- Phase 3 - Shady Grove, King Farm, and Derwood areas
- Phase 4 - Northeast quadrant of County (primarily, the first-due areas of Stations 4, 13, 17, and 28), including the Route 27 corridor north of Brink Road, Route 108 corridor between Routes 97 and 650, and Route 124 corridor north of Snouffer School Road
- Phase 5 - Eastern area of County, with emphasis on the Route 29 corridor north of University Boulevard

- Phase 6 - Western area of County, west of Stations 9, 22 (Germantown West), 30, 31, 33, and 35 (Clarksburg)

- Phase 7 - Norbeck Road corridor east of Gude Drive

  Note: Phases 3, 5, and 7 will include a component examining the Inter-County Connector as it relates to MCFRS service needs and the delivery of fire-rescue services along the highway and adjacent areas.

To complete this crucial study in a timely manner and to better address the myriad of other planning-related tasks described in the Master Plan, a **Grade 21 Planning Specialist position must be added to the MCFRS Planning Office in the near future**. Presently, the office has only one planner (i.e., Grade 25 Senior Planning Specialist) and one GIS specialist (i.e., Grade 23 GIS Manager) to handle a vast, and increasing, work load. The additional planner would allow for faster completion of Phases 3-7 of the Station Location and Resource Allocation Study and would further allow the Planning Office to keep pace with other vital planning projects and tasks. Approximately $55,000, plus the cost of benefits, would be required annually to fund the Grade 21 position. It is envisioned that a second GIS position within the Planning Office will be required within the FY08-10 time frame to keep pace with the department's increasing need for GIS products and services.

Priority #4. Enhancements to Wellness-Fitness and Safety Programs

Improve the MCFRS Wellness-Fitness and Safety Programs through the following enhancements:

- **Adding three Safety Captain positions to the MCFRS Safety Office**

  Safety Captains are essential on the fire ground or the scene of other types of complex incidents to oversee the safety of MCFRS personnel working in or near dangerous environments. Safety oversight minimizes the occurrence of fire-rescuer injuries and fatalities as well as unsafe practices that might otherwise occur. Safety oversight by Safety Captains also reduces the incidence of vehicle collisions and mishaps involving MCFRS vehicles. In addition, safety oversight leads to safer conditions at MCFRS work sites through inspections of facilities and observation of routine work practices and drills. Safety of firefighter-rescuers is one of the Fire Chief's top priorities, and the Safety Captains are a major element of the MCFRS wellness-fitness and safety programs.

As of 2005, there was only a single Safety Captain overseeing the safety needs of all shifts. Three additional positions are required to ensure continuous safety oversight across all three shifts, while allowing for training, annual leave, sick leave, administrative leave, etc. of the four Safety Captains. The cost of adding the three positions is about $450,000, with funding to be provided by the proposed ambulance fee and other funding sources other than County tax funds.

Note: The FY06 Operating Budget included funding for three Safety Captain positions beginning in the fourth quarter of the fiscal year.

- **Upgrading the Fire-Rescue Occupational Medical Section (FROMS) Battalion Chief position to the Assistant Chief level**

Funding in the amount of $29,370 will cover personnel costs ($13,870) and vehicle costs ($15,500 included in the MCFRS Fleet budget) of upgrading the Battalion Chief position at FROMS to an Assistant Chief position; thus transitioning this position to the appropriate grade in relation to the position's level of complexity. The actual personnel action to accomplish this upgrade would involve abolishing the existing FROMS Battalion Chief position and creating an Assistant Chief position for FROMS. The person filling this new position would be responsible for leading FROMS, which involves the coordination of all FROMS activities and ensuring compliance with the Wellness-Fitness Initiative as part of the Collective Bargaining Agreement with IAFF Local 1664. The new Assistant Chief assigned to FROMS would have increased responsibilities over the former Battalion Chief due to the increase in the number of career personnel to serve as well as approximately 500-600 additional IECS-certified volunteers requiring annual physicals.

- **Adding two Grade 23 Nurse Clinician positions at the FRTA**

Funding in the amount of $181,080 will cover personnel costs ($175,800) and operating costs ($5280) of two Grade 23 Nurse Clinicians. Adding these two positions will allow MCFRS to meet all of its daytime and nighttime EMT-I class training requirements as well as required clinical and field responsibilities. Considering the increased EMS call load in the County and the paramedic turnover rate, the nurse clinician responsibilities are expected to double within the immediate future. The current nurse clinician position cannot absorb the additional work load. The two new personnel would allow for a greater degree of quality assurance, field evaluations, National Registry certifications, intravenous technician training for EMT-Bs, and training of EMS providers for WMD incidents.

Note: The FY06 Operating Budget included funding for one Nurse Clinician position.

- **Adding a Licensed Clinical Social Worker III position at FROMS**

Funding in the amount of $113,000 will cover personnel costs of a Licensed Clinical Social Worker (LCSW) III position to run the MCFRS Employee Assistance Program (EAP), a component of the MCFRS Wellness-Fitness Initiative. The primary purpose of the MCFRS EAP is to provide direct behavioral and mental health services to MCFRS employees and their families. Presently, the Staff Psychologist is over-extended in providing or coordinating services to MCFRS employees through three programs – Clinical Therapy/Counseling, Critical Incident Stress Management (CISM), and Wellness-Fitness – each program operating at maximum capacity. The LCSW would provide relief to the Staff Psychologist in the clinical area, allowing this individual to focus on outreach services, education, and training. The LCSW would also assist in identifying behavioral and mental health trends and needs of MCFRS personnel.

Note: The FY06 Operating Budget included funding for the LCSW III position.

- **Adding funding for annual physicals for IECS-certified volunteers**

Funding is required to provide annual physicals to about 500 IECS-certified volunteers, although the number varies from year to year. Funding would cover examinations, lab tests, flu vaccine, and supplies. Annual physicals for IECS-certified volunteers would allow for greater retention of volunteers through health monitoring and by identifying and addressing health issues sooner. The OSHA/MOSH respiratory protection policy requires annual examinations of firefighters, along with fit testing, for firefighters to use respiratory protective equipment.

Priority #5. Shady Grove Fire-Rescue Station and Other Facilities

The MCFRS must ensure that the FY07-12 CIP includes a project for a 5-6 bay fire-rescue station in the Shady Grove area, at or in the vicinity of Shady Grove Road and Route 355. The station's first-due area will include the Shady Grove area, northern Rockville including the King Farm, southern Gaithersburg, and western portions of Derwood. As explained elsewhere in this Master Plan, this station will fill a gap in 6-minute response time coverage (i.e., adopted response time goal for a first-responder unit and first-due engine company) within the Shady Grove-King Farm area. This is a busy call load area, and the call volume will increase substantially as new high-density development surrounds the Shady Grove METRO Station (as proposed in the new Shady Grove Sector Plan), and the King Farm is built out.

The Shady Grove station should have expanded living quarters, office space, and bay space to accommodate assigned firefighter-rescuers, the Duty Operations Chief, an EMS

Supervisor (position proposed in this Plan), Fire and Explosive Investigations staff, suppression apparatus, EMS unit(s), plus specialty units including several or all of the following: Bomb Squad, up-county hazmat unit, MCFRS Command Post unit, decontamination unit(s), air unit, proposed EMS bus, and any future specialty units that would serve the entire County from this central location. Ready-reserve apparatus should also be housed in this station if space is available, or in a co-located facility (see below). Sufficient land should be purchased to accommodate not only the Shady Grove fire-rescue station (as described) but one or more other urgently needed MCFRS facilities (e.g., centralized warehouse, centralized maintenance facility, and/or a dedicated facility for housing "ready-reserve" apparatus), taking full advantage of this central location within the County and extensive highway network. Acquiring available land at or in the vicinity of Shady Grove Road and Route 355 is important for strategically siting the MCFRS central maintenance facility (see Priority #2) and MCFRS warehouse (see Priority #6) within the geographical center of the County.

Cost Estimate: Approximately $15-35 million, depending on the number of functions/personnel to be co-located at this site. Estimate does not include land acquisition costs or staffing costs.

Priority #6. MCFRS Central Warehouse

As explained in earlier sections, the MCFRS must establish and operate a MCFRS central warehouse for storage and distribution of all commonly-used MCFRS equipment, supplies, protective gear, and clothing. A central warehousing system should serve as a cost-efficient approach to purchasing, inventorying, storing, and distributing commonly-used items. Presently, the County purchases uniforms, clothing, and protective gear, and these items are stored in cramped space in Rockville. All other fire, rescue, and EMS equipment and station supplies/equipment are purchased by the County or LFRDs, and most is shipped to stations where it is stored and used. There is no standardized system used by all MCFRS organizations to purchase, inventory, store, and distribute equipment, supplies, gear, and clothing. A warehouse of approximately 50,000-60,000 square feet would allow storage of all required stock under one roof. It is the MCFRS' sixth highest priority to ensure that a MCFRS warehouse is acquired (leased or purchased) at a central location and opened for business in FY06.

Cost Estimates:

- Short-term Lease Option for an Existing Warehouse: $605,000 per year for leasing 33,500 square feet of warehousing space in Rockville as an interim facility, not including required compartmentalization and modifications to the building's interior

- Start-up Costs: Approximately $260,000, including IT equipment, phone system, security system, equipment (e.g., forklift), furniture, and two delivery vehicles (e.g., box-style truck, van)

- Staffing Costs: None in FY06. $342,000 in FY07 for the following positions: Manager III, Warehouse Supervisor, Truck Driver/Warehouse Worker, Warehouse Equipment Operator, Supply Technician II. Recurring costs thereafter will be approximately equivalent to FY07 costs, with annual adjustments.

Priority #7. Additional EMS Units and Community Resource Units

The MCFRS must quickly deploy additional EMS units at the following locations (presented in priority order, subject to continuous evaluation) to address increased service demand, to better meet response time goals, and/or to relieve existing EMS units that have exceeded the recommended threshold level of 2500 calls per unit per year. Justification for each unit is provided in the Master Plan.

- Station 8 – Deploy 2nd medic unit to serve as a "flex" unit, having guaranteed 12-hour staffing/day (e.g., 9 a.m. - 9 p.m.) to handle peak call volume in the Gaithersburg/Montgomery village area
  First year cost: About $750,000, including vehicle, equipment, fuel, maintenance, and 12-hour/day career staffing (i.e., 1 MFP position X 2.25 WYs + 1 LTP position X 2.25 WYs).
  Recurring cost: Approximately equivalent, minus the vehicle and equipment costs of about $207,000.

- Station 25 – Deploy 2nd medic unit to serve as a "flex" unit, having guaranteed 12-hour staffing/day (e.g., 9 a.m. - 9 p.m.) to handle peak call volume in the Aspen Hill area
  First year cost: About $750,000, including vehicle, equipment, fuel, maintenance, and 12-hour/day career staffing (i.e., 1 MFP position X 2.25 WYs + 1 LTP position X 2.25 WYs).
  Recurring cost: Approximately equivalent, minus the vehicle and equipment costs of about $207,000.

- Station 3 – Deploy 2nd ambulance, to serve as a "flex" unit, having guaranteed 12-hour/day staffing (e.g., 9 a.m. - 9 p.m.) to handle peak call volume in the Rockville area
  First year cost: About $600,000, including vehicle, equipment, fuel, maintenance, and 12-hour/day career staffing (i.e., 2 FF3 positions X 4.5 WYs).

Recurring cost: Approximately equivalent to first year costs, minus the vehicle and equipment costs of about $184,000.

- Station 19 – Deploy an ambulance, with guaranteed 24/7 staffing
  First year cost: About $1 million, including vehicle, equipment, fuel, maintenance, and 24/7 career staffing (i.e., 2 FF3 positions X 9 WYs).
  Recurring cost: Approximately equivalent to first year costs, minus the vehicle and equipment costs of about $184,000.

- Station 15 – Deploy an ambulance, with guaranteed 24/7 staffing
  First year cost: About $1 million, including vehicle[7], equipment, fuel, maintenance, and 24/7 career staffing (i.e., 2 FF3 positions X 9 WYs).
  Recurring cost: Approximately equivalent to first year costs, minus the vehicle and equipment costs of about $184,000.

- Station 21 – Upgrade Ambulance-219 to Medic-219, with guaranteed 24/7staffing
  First year cost increase: About $310,000, including ALS equipment costing $32,566, and 24/7 career staffing (1 MFP position X 4.5 WYs + 1 LTP position X 4.5 WYs) with a corresponding cost increase of $276,634 above staffing costs for a BLS unit.
  Recurring cost increase: Approximately equivalent to first year costs, minus equipment costs.

In addition to these EMS units, the MCFRS should establish "community resource units" (i.e., community resource engine and community resource medic unit), staffed 24/7, as soon as practicable for the following purposes:

- Temporarily filling in at stations where similar units are committed on long duration details outside their first-due area

- Assisting with community outreach/public education events

- Filling in at one of the specialty team stations when engines and EMS units from those stations are committed on long-duration incidents where specialty teams are deployed

- Temporarily assisting in areas with heavy call loads when units in those areas are committed on incidents

[7] It is recommended that the existing ambulance owned by the Burtonsville Volunteer Fire Department serve as a reserve unit for both the new ambulance and for the Station 15's existing medic unit.

- Providing a reflex capability when additional units are required on major incidents (e.g., multi-alarm structure fire)

- Serving any other temporary assignment that may arise

Initially, two community resource units would serve countywide; however, the long-term strategy is for two community resource units to be assigned per battalion.

Cost Estimates (for initial two units):

- Community Resource Engine: $1.6 million per year to minimally staff the engine with 3 career firefighters on a 24/7 basis, or $2.0 million per year for desired 4-person staffing. Fully-equipped vehicle (first year purchase) will cost about $525,000.

- Community Resource Medic Unit: $938,000 per year to minimally staff the unit with two career paramedics. Vehicle cost, including equipment/supplies, is about $225,000 (first year purchase).

Priority #8. Implementation of Recommendations from the 2001 Aerial Unit and 2004 Rescue Squad Studies

The MCFRS should implement, as quickly as possible, the recommendations within the 2001 Aerial Unit Study and 2004 Rescue Squad Study, both approved by the Fire and Rescue Commission. These improvements will result in greater firefighting and rescue efficiency, improved safety, less damage to property, and improved service delivery. These operational enhancements should also help the County to achieve a reduced ISO rating and may assist the MCFRS in achieving accreditation status (see Priority #11). The yet-to-be-completed recommendations from the two studies are presented below.

- Establish aerial unit service at Stations 13[8] and 40, with guaranteed 24/7 staffing
  Estimated cost: $4.2 million, including purchase of two aerial units ($800,000 each) and 24/7 career staffing for each

- Achieve an aerial unit fleet having an equal percentage (i.e., 50-50%) of tower ladders and tractor-drawn aerial units
  Estimated cost: No additional cost. Recommendation would be implemented over time during regular replacement of aerial units.

[8] Placing this aerial unit at the Clarksburg station instead of Station 13 is under consideration to determine whether this alternate location would result in a more efficient aerial deployment for the northern County.

- Implement the six-heavy-rescue-squad-deployment strategy, with Rescue Squads 3, 15, 17, 18 (or 19), 28 (or 29), and 291 serving as the six heavy rescue squads
  Estimated cost: Additional $2.5 million to pay for the 4th person (assuming 24/7 career staffing) to meet the 4-person requirement recommended in the 2004 Rescue Squad Study as well as NFPA Standard 1710

- Establish extrication-capable units at Stations 4, 13, 30 and 31[9]
  Estimated cost: Add approximately $100,000 to the cost of a new engine or aerial unit to establish extrication capability, or spend $135,000 per unit to retrofit and upgrade an existing engine or aerial unit to achieve extrication capability. Estimates include rescue equipment/tools, generator, hydraulic hoses and reels, and modifications to the design of the vehicle to accommodate the extra equipment. For the three designated units at Stations 4, 13, and 30 together, the total cost would range between $300,000 (added to the cost of new engines or aerial units) and $405,000 (to retrofit and upgrade existing engines or aerial units). Truck 31 will be replaced by a new ladder truck having extrication capability in the 2nd quarter of FY06.

- Implement new training requirements (i.e., Rescue Technician Site Operations and Vehicle & Machinery Rescue Course taught at the FRTA) for personnel comprising minimum staffing on rescue squads
  Estimated cost: $9310 X 2 classes per year = $18,620 per year

- Achieve 4-person minimum staffing on rescue squads and aerial units
  Estimated cost: $11.4 million (assuming 24/7 career staffing of 4th position County-wide), including Phases 3-6 of the 4-person staffing strategy. [Note: Priority #9 below addresses Phases 1 and 2 of the 4-person staffing strategy.]

Priority #9. Four-Person Staffing on Frontline Engines, Aerial Units, and Rescue Squads

Implement the initial phase (i.e., Phase 1) of the 7-phase strategy to achieve 4-person staffing on engines, aerial units, and rescue squads throughout the County, assuming 24/7 career staffing of the 4th position, with one exception. [Justification for 4-person staffing is provided in Section 4 of this Plan.] While staffing of the 4th position on applicable units can be achieved with volunteer and/or career personnel, the cost estimate below assumes the worst case scenario of no volunteer availability for staffing the 4th position.

- Phase 1 (FY07): 4-person staffing on 8 engines at stations located along the County's periphery.

[9] Other extrication-capable units recommended in the Rescue Squad Study are presently in service, including Trucks 2 and 12 and Rescue Engines 92 and 143

First year cost: $3.2 million for 4th person staffing, assuming 24/7 career staffing of 4th position.
Recurring cost: Approximately equivalent, with annual adjustments

Priority #10. Water Supply and Foam Strategies

The MCFRS must implement, as soon as possible, remaining recommendations of the 2000 Water Supply Study as well as Class A (e.g., compressed-air foam or "CAF") and Class B (for flammable liquid fires/spills) foam strategies. Water supply improvements and use of Class A and B foams will result in greater firefighting efficiency, improved safety, less property damage, and improved service delivery. These fire suppression enhancements should also help the County in achieving an improved (i.e., reduced) ISO rating as well as MCFRS accreditation (see Priority #11).

- Replace frontline engines/engine-tankers with CAFS-equipped units
  Estimated cost: $35,000 additional per engine or engine-tanker, totaling $1.3 million additional for 36 engines and engine-tankers[10]

- Retrofit non-sprinklered high-rise residential buildings
  Estimated cost: System installation costs will be borne by building owners; however, MCFRS may need to hire additional personnel to witness and approve sprinkler system tests in these retrofitted buildings. The actual cost to retrofit all non-sprinklered residential mid- and high-rise buildings, including those with occupant-owned units and those with rental units, would be building-specific, depending upon the square footage to be protected and other building-specific considerations. [Note: There were 84 non-sprinklered residential high-rises in the County in 2005.]

- Deploy Class B foam attack capability with combined inventory of 2000 gallons of foam concentrate, and various turrets, eductors, and nozzles
  Estimated cost: $650,000 per foam unit, including foam and all equipment (see Priorities 2a and 2h above)

- Achieve fire flow requirement of at least 500 gpm for initial 30 minutes of a structure fire
  Estimated cost: Undetermined overall cost. The cost would be the sum of many component costs, including those associated with apparatus, equipment, training, alternate water supply, etc.

[10] Includes 31 existing frontline engines/engine-tankers and 5 frontline engines/engine-tankers to be assigned to new up-county stations

- Standardize hose appliances on all engines, engine-tankers, and quints
  Estimated cost: $72,000 per unit; $2.6 million for 36 frontline engines[2]

- Continue purchase of 1500-gpm pumpers and 3500-gallon tankers
  Estimated cost: No additional cost. Recommendation would be implemented continuously during regular replacement of pumpers and tankers.

- Achieve full complement of equipment on all reserve apparatus [i.e., pumpers]
  Estimated cost: $72,000 per unit; $2.2 million for 30 reserve pumpers

- Establish [additional] ISO-certified drafting points
  Estimated cost: While there are no equipment costs involved in establishing ISO-certified drafting points, their have been, and will continue to be, labor costs associated with the identification, mapping, and certification of drafting points.

- Expand installation and use of dry hydrants
  Estimated cost: Costs to be borne by private property owners, since dry hydrants would need to be installed on private property having ponds, lakes, or cisterns. Maintenance of dry hydrants would be the responsibility of property owners, as well. The County could consider offering tax incentives to property owners to encourage them to install and maintain dry hydrants attached to ponds, lakes, or cisterns on their property.

- Encourage the expansion and looping of water mains (by Washington Suburban Sanitary Commission) in Clarksburg and Damascus
  Estimated cost: No cost to MCFRS; costs borne entirely by WSSC

- Tactical use of dry vertical standpipes along limited-access highways (assuming these standpipes are eventually installed by the State)
  Estimated cost: Undetermined MCFRS training costs; system costs would be borne by the State Highway Administration (SHA)

- Coordinate maintenance of standpipe connections through [interstate] highway sound barriers
  Estimated cost: No cost to MCFRS; costs to be borne entirely by SHA

Priority #11. Service Improvement and Reduced Property Insurance Premiums through Department Accreditation and Improvement to County's ISO Rating

The MCFRS should achieve accreditation status from the Commission on Fire Accreditation International (CFAI), while simultaneously implementing steps to improve (i.e., reduce) the County's ISO rating. These two efforts go hand-in-hand, as accomplishing one will play a role in accomplishing the other**.** Accreditation and improvement of the County's ISO rating are discussed in detail in Section 5 of the Master Plan. Both the MCFRS and its customers would benefit from improvement of the ISO rating (i.e., lower insurance premiums should result for most property owners) and by having an internationally-accredited Department (which indicates efficiency, effectiveness, and excellence in service delivery). The accreditation process is a major undertaking that must have the full commitment of the entire Department, from the Fire Chief on down. The process will take several years and involve thousands of hours of preparation. The effort to achieve an improved ISO rating is likewise a significant task that requires a major commitment from MCFRS to meet established standards. Property owners/tax payers, generally, will benefit from reduced property insurance premiums with improvements to ISO ratings as well as reductions in property loss due to fire.

Cost Estimates:

- Preparation for Accreditation Process: Approximately $750,000 including a coordinator to oversee the program (i.e., $300,000 for a 3-year period), other personnel to assist the coordinator (i.e., $200,000 for three years), materials and administrative costs (i.e., $200,000), and a vehicle and other transportation expenses (i.e., $50,000)

- Initial Accreditation and Re-accreditation:

    - $250 non-refundable fee (except when the department pays the applicant agency fee) for becoming a "registered agency"

        - $6,000 non-refundable "applicant agency fee" (for departments serving populations over 200,000) minus the $250 initial fee (credited to the applicant department for not withdrawing from the process)

        - All travel expenses for the CFAI Peer Assessment Team to conduct their on-site assessment

        - All travel expenses for the CFAI Peer Assessment Team Leader to attend the CFAI Accreditation Hearing

- Annual fee (upon accreditation) equal to one-fifth of the applicant fee (i.e., $1200) for maintenance of accreditation status and re-accreditation.

- Improvement of ISO Rating: The cost would be included in the cost of accreditation preparation, as the same personnel would work on ISO improvements and use the same administrative and transportation resources used in preparing for accreditation. Field personnel, as part of ongoing training, will need to commit time for demonstrating the ability to achieve and maintain water flow standards. It is envisioned that efforts to reduce the County's ISO rating will also assist the MCFRS in attaining accreditation status and vice versa.

Priority #12. Relocation of Station 18

The MCFRS must advocate for a CIP project for a modified Class II fire-rescue station in the Wheaton-Glenmont area. Station 18 must be relocated because of State Highway Administration (SHA) plans to create a grade separation at the Georgia Avenue/Randolph Road intersection that will require the Station 18 property. Depending upon the SHA project timeline, it is likely that an interim station[11] will be required. Site evaluation and selection for the new station must be accomplished during FY06, so that land can be purchased, if necessary, in a timely manner. As the State has determined the need to take the land upon which the existing station stands, it is expected that the State will fund construction of the new facility and pay any land acquisition costs. Furthermore, if an interim station is needed, the State will also be expected to address the costs of establishing that facility. Any State funding shortfall for the permanent station and/or interim station will have to be addressed by the KVFD and/or Montgomery County. During FY06, the POR for the permanent and interim stations must be finalized, and a station project should be included in the CIP in anticipation of the State moving ahead with right-of-way acquisition and demolition of existing Station 18 within the next 2-4 years.

Cost Estimates:

- Replacement station: Approximately $8.6 million, not including land acquisition costs (if applicable)

- Interim station: Approximately $1.6 million for construction/set up and removal (when vacated), but not including operating costs and land acquisition or leasing costs (if applicable)

[11] An interim station will likely be required if the new station is not completed by the time SHA must demolish the existing station to begin road construction. An alternative to an interim station would be the temporary redeployment of Station 18's apparatus to nearby stations, if that proves feasible from service delivery, operational, and logistical standpoints.

Priority #13. Battalion-Based Resources

The MCFRS should establish battalion-based resources to improve effectiveness and efficiency of its operations/services through improved supervision, increased quality assurance oversight, and strategic deployment of specialized staff and apparatus. Battalion-based resources would work under the supervision of the six on-duty Battalion Chiefs, working together as a team to implement the Fire Chief's vision and policies. By deploying these resources at the battalion level, they will provide community-based services more effectively and serve internal and external customers quicker than from current centralized locations. Battalion-based resources should include, but not be limited to, the following:

- EMS supervisor (i.e., EMS Captain), per battalion, on a 24/7 basis. The EMS Supervisor would respond to major EMS incidents, and any other EMS incidents at their discretion, to provide incident command and/or quality assurance oversight. The EMS Supervisor could also assist the Battalion Chief with incident command tasks during major fire-rescue incidents.

- Fire Code Enforcement inspectors concentrating on occupancies located within a specific battalion, rather than traveling to occupancies county-wide across all battalions. Inspectors would have an office within a MCFRS work site within the assigned battalion.

- Community Resource Units staffed on a 24/7 basis. [See description in Priority 7]

- Battalion Chief Aides on a 24/7 basis. The Aides would serve as drivers for the Battalion Chiefs (thus allowing Battalion Chiefs to focus on incident command tasks and other business) and assist the Battalion Chiefs at incidents and with routine administrative tasks.

- Battalion Training Officer (BTO) to serve as a liaison between the FRTA's In-Service Training Coordinator and the BTO's assigned battalion. Each BTO would be responsible for administering programs developed through the FRTA, developing other training programs specific to the needs of the battalion, coordinating required quarterly training, and evaluating the performance of each participating unit and crew. The BTO is envisioned to be a Fire-Rescue Lieutenant certified by the Maryland Instructor Certification Review Board.

Cost Estimates:

- Annual cost of battalion-based EMS Supervisors: $650,000 per battalion for EMS Captains to cover all shifts (4.5 positions per battalion), beginning with one battalion

in FY07. In addition, $85,000 for a vehicle per battalion, with one vehicle to be purchased in FY07.

- Annual cost of battalion-based Fire Code Inspectors: $1.3 million in FY06, including one Captain and five MFF positions, overtime costs, and overhead. $2.9 million in FY07, including FY06 costs plus one Lieutenant and six MFF positions, overtime costs, and overhead. [Support staff and one time costs for vehicles and equipment are not included in the above estimates.]

- Annual cost of Community Resource Units: [See cost estimates under Priority 7.]

- Annual cost of Battalion Chief Aides: $405,000 per battalion for Master Firefighters to cover all shifts (4.5 positions per battalion), beginning with one battalion (i.e., Battalion 6) in FY07. Vehicle costs do not apply, as the vehicles are already in place (assigned to Battalion Chiefs).

- Annual cost of Battalion Training Officers (BTOs): Approximately $15,000 annually for six Fire-Rescue Lieutenants (i.e., one per battalion) to serve as BTOs as a collateral duty above and beyond their regular duties. These additional funds would compensate the BTO Lieutenants for this added responsibility.

NOTE: Figure 7.1 presents a matrix of the estimated costs of implementing the Master Plan priorities described above.