A Base Budget Review of the Montgomery County Fire and Rescue Service

---

Phase I

THE ASSIGNMENT

This report is Phase I of a two-part base budget review of the Montgomery County Fire and Rescue Service (MCFRS). It describes the major cost components of the FY07 MCFRS operating budget and the allocation of resources by division. Phase II of this base budget review will be a more detailed analysis of one or more elements of the MCFRS budget.

INCIDENT DATA

MCFRS responded to 100,804 incidents in FY06. In each of the past six years, emergency medical incidents accounted for more than two-thirds of all MCFRS responses.

In FY06, MCFRS responded to almost 72,000 emergency medical incidents, of which 58 percent were Basic Life Support (BLS) calls and 42 percent were Advanced Life Support (ALS) calls. A BLS response involves a non-life threatening incident such as a non-serious automobile accident or minor injury/illness. An ALS response involves a life-threatening incident such as trauma or cardiac arrest.

In FY06, fire and rescue incidents accounted for about 17 percent of all MCFRS responses. Most fire calls are for non-structural fires, such as an auto or brush fire. Structure fires represented about one percent of total MCFRS responses in FY06.

In FY06, about three fourths of all MCFRS responses occurred between the hours of 9:00 am and 9:00 pm. The peak periods of activity were the same across all incident categories.

Number and Types of Incidents, FY06		
Incident Type	Number	% of Total
Emergency Medical		
Advanced Life Support	30,248	30%
Basic Life Support	41,651	41%
Subtotal	**71,899**	**71%**
Fire		
Structure Fires	940	1%
Other Fires	12,055	12%
Subtotal	**12,995**	**13%**
Rescue	**4,017**	**4%**
Other Incidents		
Hazardous Materials	28	<1%
False/Malfunctioning Alarms	8,234	8%
Service Calls	3,631	4%
Subtotal	**11,893**	**12%**
Total	**100,804**	**100%**

INCIDENT RESPONSE TIMES

Response time is the amount of time that elapses between receipt of an Emergency 911 call and the arrival of MCFRS personnel at the incident scene. The *Fire, Rescue, and Emergency Medical Services, and Community Risk Reduction Master Plan* establishes response time goals for different types of incidents. The response time goal for BLS incidents and structure fires is six minutes, while the goal for an ALS incident is eight minutes.

Actual response times vary by incident type and location. In FY06, MCFRS responded within the eight-minute goal for 70 percent of ALS calls in urban areas. In the same year, however, MCFRS met the response time goal of six minutes for 22 percent of rural area structure fires. The average (across the entire County) response time in FY06 was about 10 minutes for ALS and BLS incidents; and 15 minutes for structure fires.

For a complete copy of OLO-Report 2007-6, go to: www.montgomerycountymd.gov/olo

ORGANIZATIONAL STRUCTURE

The Montgomery County Fire and Rescue Service (MCFRS), a department of County Government, is a public-private partnership that includes the Fire and Rescue Commission and the 19 local fire and rescue departments (LFRDs). The Fire Chief serves as the department director of MCFRS and is empowered by the County Code with ". . . full authority over all fire, rescue, and emergency medical services in the County, including any fire, rescue, and emergency medical services provided by local fire and rescue departments." MCFRS is organized into five divisions, listed below with a brief summary of their major responsibilities.

MCFRS Division	Major Responsibilities
Operations	Provides all front line delivery of fire, rescue, and emergency medical services in the County including special operation units such the Hazardous Incident Response Team and Urban Search and Rescue Task Force.
Volunteer Services	Coordinates the operations and administration of volunteer personnel and the 19 local fire and rescue departments.
Administrative Services	Provides technology, human resources, budgeting, procurement, facilities management, insurance, and other internal administrative services.
Wellness, Safety, and Training	Develops and implements health, safety, and training programs for firefighters and emergency medical service providers.
Community Risk Reduction	Assesses current and anticipated fire and emergency medical service risks; develops plans, outreach activities, and, mitigation processes; and enforces State and County Fire Codes and other related laws.

The County Code establishes the seven-member Fire and Rescue Commission to advise the Fire Chief, the County Executive, and the County Council on matters relating to fire, rescue, and emergency medical services, legislation, programs, procedures, and plans. The Commission reviews and approves or disapproves fire and rescue service policies and regulations proposed by the Fire Chief.

Each of the 19 local fire and rescue departments (LFRDs) is an independent State-chartered corporation that operates under the authority of the MCFRS Fire Chief, as defined in Chapter 21 of the County Code. The Code authorizes the LFRDs to provide direct fire suppression, rescue, and emergency medical services. Both career and volunteer personnel perform field operation duties.

OPERATIONS DIVISION WORKFORCE

The Operations Division is, by far, the largest MCFRS unit with about 86 percent of the total departmental career workforce. This Division is responsible for all front-line fire, rescue, and emergency medical services. More than 900 career firefighters, rescuers, and emergency medical service providers are assigned to the Operations Division.

Volunteers serve as firefighters, rescuers, and emergency medical providers. Volunteers primarily work in an operational capacity during evening and weekend hours. The MCFRS staffing plan assumes that volunteers fill the equivalent of 32 positions Countywide on nights and weekends.

The *Master Plan* recommends that MCFRS increase staffing on engines, aerial units, and rescue squads from three to four uniformed personnel. MCFRS estimates that full implementation of four-person staffing would require hiring an additional 200 new career firefighter/rescuers over the next six years. The calculation of new positions needed to achieve four-person staffing is predicated on MCFRS' estimates that, on average, a career shift firefighter is available to respond to calls 1,920 hours per year and a career shift paramedic is available to respond to calls 1,640 hours per year.

OPERATING BUDGET SUMMARY

The Council's appropriation of $178 million for MCFRS' FY07 operating budget continued a multi-year growth in funding for fire and rescue services. Between FY02 and FY07, the approved MCFRS operating budget increased by almost $76 million, a 75 percent increase.

In FY07, personnel costs account for 87 percent of the total MCFRS budget; the largest operating (non-personnel) expenses relate to the Public Safety Training Academy and other activities associated with the Wellness, Safety, and Training Division. As might be expected, approximately three-fourths of the MCFRS budget goes to the Operations Division for front-line fire, rescue, and emergency medical service activities.

### Personnel Costs and Operating Expenses by Division, FY07 ($ in 1,000s)

Division	Personnel	Operating	Total	% Total
Fire Chief / Fire & Rescue Commission	$1,445	$150	$1,595	1%
Operations	$131,844	$3,700	$135,544	76%
Administrative Services	$4,509	$3,987	$8,496	5%
Volunteer Services	$364	$2,067	$2,431	1%
Wellness, Safety, and Training	$7,372	$9,458	$16,830	9%
Community Risk Reduction	$6,134	$654	$6,788	4%
Salaries and Wages – LFRD Staff	$2,594	$0	$2,594	1%
Payments to LFRDs	---	$3,704	$3,704	2%
Total	**$154,260**	**$23,720**	**$177,982**	**100%**
% Total	87%	13%	100%	-----

POSITION/PERSONNEL COST TRENDS

MCFRS reports that, as of January 2007, the Department's personnel complement includes 1,187 full-time and three part-time positions. Uniformed personnel comprise 1,081 (91%) of all MCFRS positions.

Both the number of MCFRS positions and total personnel costs have increased in recent years, but at notably different rates. Between FY02 and FY07, the size of the MCFRS workforce grew by 171 positions, an increase of 17 percent. Over the same period, MCFRS personnel costs grew by $70.1 million or 83 percent. The different growth rates in workforce size and personnel costs result from the marked increases in MCFRS per employee compensation costs that occurred in recent years.

New Positions and Total Personnel Costs: Percent Increase, FY02-07
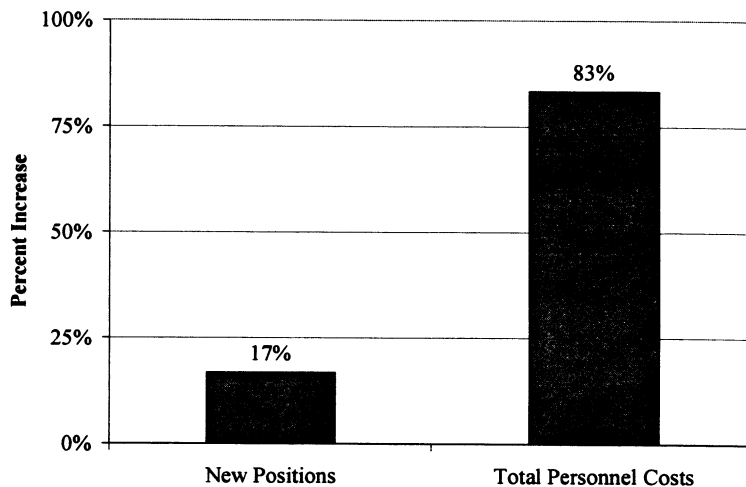
ACTUAL VS BUDGETED PERSONNEL EXPENDITURES

Actual expenditures for some categories of MCFRS personnel costs have differed significantly from budgeted levels. For example, since FY01, MCFRS has budgeted about $6 million each year for overtime. In five of the past six years, actual overtime expenditures exceeded budgeted levels with FY05 and FY06 actual overtime expenditures more than double the budgeted amount. The department has covered unbudgeted overtime by using surplus funding from other personnel cost categories in the approved budget.

DATA MANAGEMENT

While conducting this study, OLO found that MCFRS data management systems were incapable of readily producing fundamental budget and performance information. For example, the approved budget and personnel complement for both FY06 and FY07 show expenditure and position data that reflect the departmental structure that existed before the FY05 MCFRS reorganization. MCFRS staff had to manually re-sort data to produce budget and personnel information that align with the current organizational structure. In addition, MCFRS does not maintain budget or expenditure data organized by program or activity.

MCFRS has begun to address the Department's shortcomings in data collection and management. However, the current deficiencies, especially with budget and personnel data, create impediments to internal Departmental management practices, including the development of performance measures.

OLO RECOMMENDATIONS

1. **OLO recommends the Council ask the Chief Administrative Officer to assess current MCFRS data management systems and practices, and develop an improvement plan:**

OLO recommends that the Council ask the Chief Administrative Officer (CAO) to assess MCFRS' data management systems and practices. The CAO's review should identify the need for expenditure, personnel, and performance data, and assess the gap between what is and what should be readily available for ongoing management of the Department as well as for conducting more in-depth fiscal and program evaluations. OLO recommends that the Council ask for a report back from the CAO on the findings of this assessment within the next 90 days. In addition, the Council should request that the CAO develop a 12-month plan for improving MCFRS data management practices.

2. **OLO recommends that the Council select one of the following assignments as Phase II of OLO's Base Budget Review of MCFRS:**

Based on the work performed in Phase I, OLO proposes four possible topics for the Phase II analysis. The amount of time needed to complete any one of the Phase II options will depend on the availability of data required for the analysis.

	Assignment	Summary Description
A	Analyze budgeted vs. actual personnel costs.	A comparison of actual and budgeted MCFRS personnel expenditures from the last three fiscal years.
B	Update MCFRS' Net Annual Work Hour calculation for uniformed positions.	A calculation of average actual net annual on-duty work hours for uniformed personnel as necessary to determine staffing requirements.
C	Analyze MCFRS' calculation of workforce requirements related to implementation of four-person staffing.	An examination of the assumptions and calculations used to prepare the Department's estimates of total career positions needed to implement four-person staffing.
D	Examine current and potential new fees for MCFRS services.	A comparison of existing fee revenues and program costs. An identification and evaluation of other services that could be considered as fee-generating activities.

A BASE BUDGET REVIEW OF THE MONTGOMERY COUNTY FIRE AND RESCUE SERVICE

PHASE I

TABLE OF CONTENTS

A BASE BUDGET REVIEW OF MONTGOMERY COUNTY FIRE AND RESCUE SERVICE

LIST OF TABLES AND EXHIBITS

CHAPTER I: AUTHORITY, SCOPE, AND ORGANIZATION OF REPORT

A. Authority

Council Resolution 15-1554, *FY 2007 Work Program of the Office of Legislative Oversight,* adopted July 25, 2006.

B. Purpose and Scope of Report

This report is the first of two phases of the Montgomery County Fire and Rescue Service (MCFRS) base budget review and presents information about the types and costs of services performed by MCFRS. For FY07, the Council approved an operating budget of $178 million for MCFRS. The approved FY07 MCFRS operating budget supports 1,169 positions and 1,235.6 workyears.

The assignment of base budget reviews reflects the Council's desire to develop a budget review process based on more in-depth analysis of agency and program budgets, to include enhanced discussions of program efficiency, effectiveness, results, and funding priorities.

This report describes the major cost components of the FY07 MCFRS operating budget and the allocation of resources among the various divisions and functions of MCFRS. The second phase of the MCFRS base budget review will involve an analytical assessment of one element of the MCFRS budget. After review of this document, the Council will determine the scope for the second phase.

C. Organization of Report

Chapter II, Legal Framework, describes the laws and regulations that establish the roles and responsibilities of MCFRS. This chapter also describes other agreements, plans, and standards that affect the work of MCFRS.

Chapter III, Organizational Structure, describes the organization and structure of MCFRS and its relationship to other entities involved in emergency prevention and response.

Chapter IV, Operating Budget Overview, summarizes the major elements of the FY07 approved MCFRS operating budget, presents workforce information, and describes multi-year funding trends.

Chapter V describes the major duties of the **Office of the Fire Chief** and the **Fire and Rescue Commission.**

Chapter VI summarizes the budget and describes the major duties of the **Operations Division** of MCFRS. This chapter also includes information on the number of career and volunteer personnel and the workload of the Division.

Chapter VII summarizes the budget and describes the major duties of the **Volunteer Services Division** of MCFRS.

Chapter VIII summarizes the budget and describes the major duties of the **Administrative Services Division** of MCFRS.

Chapter IX summarizes the budget and describes the major duties of the **Wellness, Safety, and Training Division** of MCFRS.

Chapter X summarizes the budget and describes the major duties of the **Community Risk Reduction Services Division** of MCFRS.

Chapter XI presents a summary of the Office of Legislative Oversight's **Findings.**

Chapter XII presents the Office of Legislative Oversight's **Recommendations.**

Chapter XIII presents **Agency Comments** received on a final draft of this report.

D. Methodology

Office of Legislative Oversight (OLO) staff members Aron Trombka and Richard Romer conducted this study. OLO gathered information through document reviews, data analysis, and interviews with staff of the Montgomery County Fire and Rescue Service and other organizations. OLO gathered information from various information sources including MCFRS budget documents, staffing reports, performance data, and records management system reports.

During the course of conducting this study, OLO found that MCFRS' data management systems were incapable of readily producing the requested budget and performance information. For example, all MCFRS budget and personnel complement data for FY06 and FY07 reflect the organizational structure that existed before the FY05 reorganization of MCFRS. MCFRS staff had to manually re-sort data to produce budget and personnel information that align with the current organizational structure.

As a result of learning what data are and are not readily available, OLO adjusted its approach to presenting information. For example, OLO sought to report cost information at the program level. MCFRS was not able to produce program level budget information for many activities. As a result, this report presents most budget information at the division level.

E. Acknowledgements

OLO received a high level of cooperation from everyone involved in this study. OLO appreciates the significant time commitment, information shared and the insights provided by Montgomery County Fire and Rescue officers, civilians, and volunteers including:

Division Chief Richard Bowers
Captain Tim Brown
Tracy Brown
Fire Chief Tom Carr
Po Kar Chu
Emilie Crown
Captain John Dimitriadis
Dominic Del Pozzo
Linda Dowdy
Captain Kevin Frazier
Albert George
George Giebel
Battalion Chief Scott Graham
Division Chief Philip Guercio

Scott Gutschick
Division Chief Alan Hinde
Steve Lamphier
Assistant Chief Steve Lohr
Division Chief Mike Love
Wayne Martin
Assistant Chief Michael McAdams
Debra Shaw
Neil Shorb
Sally Orsini
Michael Strausbough
Frederick Welsh
Division Chief Randy Wheeler
Kathy Zieger

In addition, OLO acknowledges the valuable information and assistance provided by:

County Council Staff
    Minna Davidson
    Michael Faden

Department of Finance
    Mauricio Delgado
    Fred Enos
    Terry Fleming

Office of Management and Budget
    Anita A. Aryeetey
    David Mack

CHAPTER II: LEGAL FRAMEWORK

This chapter describes the laws and regulations that establish the roles and responsibilities of the Montgomery County Fire and Rescue Service (MCFRS) and reflects the restructuring of the County's fire and rescue system approved by the County Council in May 2004 (Bill 36-03: Fire and Rescue Services - Amendments). This chapter also describes other agreements, plans, and standards that affect the work of MCFRS.

A. Establishment of the Montgomery County Fire and Rescue Service

Chapter 2 of the County Code establishes the Montgomery County Fire and Rescue Service (MCFRS) as a department of the County Government. As stated in Section 2-39A of the Code, MCFRS operates as part of a County fire and rescue system that also includes the Fire and Rescue Commission and local fire and rescue departments (LFRDs). The full text of Section 2-39A appears in Exhibit 2-1.

Exhibit 2-1: Montgomery County Code, Chapter 2, Section 39A

(a) *Public-private partnership.* The Montgomery County fire and rescue system is a public-private partnership, acting through the Montgomery County Fire and Rescue Service, with the advice of the Fire and Rescue Commission.

(b) *Department of County government.* The Montgomery County Fire and Rescue Service is a department of County government under the County Charter. The Fire Chief is Director of the Department. The Department consists of a Division of Volunteer Services, a Division of Fire and Rescue Operations, and any other divisions necessary for effective management and administration of the Department.

(c) *Local Fire and Rescue Departments.* The local fire and rescue departments and their volunteer members are an essential element of the Montgomery County Fire and Rescue Service because under Chapter 21 they furnish direct fire, rescue, and emergency medical services in conjunction with County employees in the Fire and Rescue Service.

(d) *Duties.* The Montgomery County Fire and Rescue Service has the duties and responsibilities assigned in Chapter 21 and Chapter 22, in addition to any other duties assigned by law or by the County Executive.

B. County Laws and Regulations

Chapter 21 (Fire and Rescue Services) and Chapter 22 (Fire Safety Code) of the County Code establish the structure of the County's fire and rescue system.

1. County Code Chapter 21

Chapter 21 of the County Code describes the authority, duties, and organization of MCFRS. Section 21-1 of the Code states that the "County Government is ultimately responsible for assuring public safety by providing fire, rescue, and emergency service." Section 21-1 further "supports the delivery of fire, rescue and emergency services through the Montgomery County Fire and Rescue Service, including the local fire and rescue departments, operating under County policies and regulations implemented by the Fire Chief."

<u>MCFRS Management Positions</u>: Chapter 21 establishes three senior management positions in MCFRS: the Fire Chief, the Chief of the Division of Fire and Rescue Operations, and the Chief of the Division of Volunteer Services. As described below, Chapter 21 spells out the duties of these three positions.

a. The <u>Fire Chief</u> serves as the department director of MCFRS. The Fire Chief is appointed by the Executive and confirmed by the Council. The Code empowers the Fire Chief with "...full authority over all fire, rescue, and emergency medical services in the County, including any fire, rescue, and emergency medical services provided by local fire and rescue departments."[1]

b. The <u>Chief of the Division of Fire and Rescue Operations</u> is a merit position that serves under the Fire Chief. The County Code assigns the Chief of the Division of Fire and Rescue Operations with "...operational authority over fire, rescue, and emergency medical services activities of the Fire and Rescue Service, including the local fire and rescue departments, as assigned by the Fire Chief."[2]

c. The <u>Chief of the Division of Volunteer Services</u> serves under the Fire Chief as the highest ranking volunteer officer in the County. The Chief of Volunteer Services is appointed by the Executive and confirmed by the Council. The County Code grants the Chief of Volunteer Services with "...operational authority over fire, rescue, and emergency medical services activities of the Fire and Rescue Service, including the local fire and rescue departments, as assigned by the Fire Chief."[3] The Code also charges the Chief of Volunteer Services with responsibility to coordinate the operations and administration of volunteer personnel and LFRDs. More specifically, the Code requires that the Chief of the Division of Volunteer Services "...must:

   (1) promote the integration of the activities of volunteer and career firefighters and rescuers;
   (2) promote recruitment and retention of volunteers;
   (3) assist LFRDs in training, risk management, use and maintenance of apparatus, budget preparation, and formulating department policy and recommendations to the Chief and Commission;

---

[1] Montgomery County Code: Chapter 21-3 (b).
[2] Montgomery County Code: Chapter 21-3 (c).
[3] Montgomery County Code: Chapter 21-3 (d).

(4) monitor legislative and regulatory actions involving volunteer activities and inform affected groups; and

(5) provide additional opportunities for people to volunteer, including the creation of a mobile volunteer personnel corps."[4]

Chapter 2 of the County Code authorizes the Fire Chief to create "...any other divisions necessary for the effective management and administration of the Department."[5] Chapter III of this report describes the organizational structure of MCFRS.

Fire and Rescue Commission: Chapter 21 of the Code establishes the County Fire and Rescue Commission. The Commission consists of seven voting members appointed by the County Executive and confirmed by the County Council. The Commission advises the Fire Chief, the County Executive and the County Council on matters relating to fire, rescue and emergency medical services legislation, programs, procedures, and plans. The Code requires that the Commission review and approve or disapprove fire and rescue service policies and regulations proposed by the Fire Chief. A description of the responsibilities of the Fire and Rescue Commission appears in Chapter V of this report.

Local Fire and Rescue Departments: A local fire and rescue department (LFRD) is defined in Chapter 21 of the Code as "any individual fire or rescue squad corporation authorized under Section 21-5 to provide fire and rescue services." A Council approved LFRD may provide direct fire suppression, rescue, or emergency medical services in compliance with applicable County laws, regulations, policies, and procedures, and the lawful orders of the Fire Chief.[6] Chapter VI of this report provides more information about LFRDs in the County's fire and rescue system.

2. County Code Chapter 22

Chapter 22 of the County Code is the Fire Safety Code of Montgomery County. The Fire Safety Code establishes "minimum requirements and controls to safeguard life, property, and the public welfare from the hazards of fire and explosion." The Fire Safety Code authorizes the County's fire and rescue service to administer the provisions of the Code including:

- Enforcing the provisions of the Fire Safety Code;
- Investigating the cause, origin and circumstances of fire, explosion and other emergency incidents in the County;
- Ordering the removal of hazardous materials from any premises and/or the remediation of dangerous conditions in a structure;
- Recommending fire safety regulations; and
- Preparing public information materials regarding fire safety requirements.

---

[4] Montgomery County Code: Chapter 21-3 (d).
[5] Montgomery County Code: Chapter 21-3 (b).
[6] Chapter 21 of the Code specifies that certain regulations pertaining to the length of service awards program are not subject to Council approval.

The Fire Safety Code has not been updated since the January 2005 restructuring of the County's Fire and Rescue System. As a result, the Fire Safety Code references organizational units and positions which are no longer in use.

3. Executive Regulations

The County Code grants the County Executive authority to issue Executive Regulations to administer the provisions of Chapters 21 and 22. Most regulations are subject to approval by the County Council.[7] These regulations have the force and effect of law. Approved Executive Regulations address a variety of topics including implementation of the fire safety code, apparatus staffing policies, MCFRS standards of conduct, and disaster planning. Appendix B lists all Executive Regulations that directly relate to MCFRS.

C. Mutual Aid Agreements

Montgomery County has entered into mutual aid agreements with the Federal government and with neighboring jurisdictions. These agreements allow for cross-jurisdictional firefighting, rescue, and emergency medical assistance. Montgomery County has entered into mutual aid agreements with the following Federal installations located in the County:

- National Institutes of Standards and Technology;
- National Institutes of Health;
- National Naval Medical Center;
- Naval Surface Warfare Center;
- Walter Reed Army Medical Center – Forest Glen Annex; and
- David Taylor Model Basin – Carderock.

The County has entered into mutual aid agreements with the following neighboring jurisdictions:

- Prince Georges County, MD;
- Howard County, MD;
- Carroll County, MD;
- Frederick County, MD;
- Loudoun County, VA;
- Fairfax County, VA; and
- District of Columbia.

The County also participates in the National Capital Region Mutual Aid Agreement, a regional mutual agreement coordinated by the Washington Metropolitan Council of Governments. This agreement provides for inter-jurisdictional support during declared emergencies and public events that attract a large number of participants.

---

[7] Chapter 21 of the County Code specifies that certain regulations pertaining to the Length of Service Awards Program are not subject to Council approval.

D. State Law and Regulations

Several sections of the Maryland Code include provisions that govern or otherwise affect the duties and responsibilities of MCFRS. The Public Safety Article of the Maryland Code:

- Establishes Maryland Emergency Number Systems Board (Title 1);
- Establishes a State Fire Prevention Commission (Title 6);
- Establishes a State Fire Marshal (Title 6);
- Authorizes fire, rescue, and emergency medical services mutual aid agreements (Title 7);
- Establishes funds to assist counties acquire fire and rescue equipment and facilities (Title 8);
- Authorizes counties to contribute money to volunteer fire companies (Title 8);
- Establishes state requirements regarding smoke detectors, sprinklers, and fire evacuation procedures (Title 9);
- Authorizes counties to adopt fire prevention codes (Title 9);
- Authorizes local fire officials to conduct fire inspections (Title 9);
- Regulates the possession and use of fireworks and sparklers (Title 10);
- Regulates the possession and use of explosives (Title 11); and
- Establishes emergency management requirements and procedures (Title 14).

The Criminal Procedure Article of the Maryland Code:

- Authorizes fire and explosives investigation – law enforcement powers (Title 2).

The Education Article of the Maryland Code:

- Establishes the Emergency Medical Services Board, the Maryland Institute for Emergency Medical Services Systems, and the Emergency Medical Services Advisory Council (Title 13);
- Establishes licensure and certification requirements for individuals performing emergency medical services (Title 13); and
- Establishes an automated external defibrillator program (Title 13).

Additional State fire safety and emergency medical response requirements appear in numerous State regulations.

E. Other Agreements, Plans, and Guidelines

In addition to State and local laws and regulations, other agreements, plans, and guidelines establish procedures, standards, and objectives for the provision of fire and rescue service in Montgomery County. MCFRS practices and resource allocation decisions take into account:

1. Personnel agreements;
2. MCFRS Master Plan; and
3. National Fire Protection Association (NFPA) Codes and Standards.

1. Personnel Agreements

Career Employee Collective Bargaining Agreement: Chapter 33 of the County Code sets the framework and procedure for the County to engage in collective bargaining with career fire and rescue personnel. The County Government and the certified representative of fire and rescue employees bargain to reach an agreement that specifies:

- Salaries and wages;
- Pension and other retirement benefits for active employees;
- Employee benefits such as, but not limited to, insurance, leave, holidays, and vacations;
- Hours and working conditions;
- Procedures for the orderly processing and settlement of grievances concerning the interpretation and implementation of any collective bargaining agreement;
- Matters affecting the health and safety of employees; and
- Amelioration of the effect on employees when there is loss of existing jobs.

The International Association of Fire Firefighters (IAFF) Local 1664 is the certified representative of career MCFRS firefighters. The County Government and the IAFF entered into a collective bargaining agreement in 2005 that extends until June 30, 2008.

MCVFRA Direct Negotiation Agreement: Chapter 21 of the County Code establishes the direct negotiation process. This process requires that the Fire Chief consult with the LFRD representative on matters relating to:

- Volunteer firefighters' and rescuers' participation in MCFRS policy decisions;
- Representation of volunteer firefighters and rescuers on MCFRS committees and task forces;
- Volunteer firefighter and rescuer recruitment, selection, and recognition;
- Procedures used to evaluate and discipline volunteer firefighters and rescuers;
- Protection of volunteer firefighters and rescuers from harassment and discrimination;
- Length of service awards and other benefits for volunteers; and
- Allocation of appropriated funds and equipment among paid and volunteer personnel.

In November 2006, the Executive transmitted a memorandum of agreement between the County Government and Montgomery County Volunteer Fire Rescue Association (MCVFRA) that resulted from the direct negotiation process. The Council approved the memorandum of agreement in January 2007.

2. Master Plan.

Chapter 21 of the County Code describes the process for the development, review, approval, and amendment of the Fire, Rescue, and Emergency Medical Services Master Plan. The purpose of the Master Plan is to serve as a guideline for the Executive, Council, and Fire Chief in making decisions regarding delivery of fire and rescue services. As specified in the County Code, the Master Plan does not have the force of law and does not impose any legal obligation on any party.

The Code requires that the Master Plan include a(n):

- Survey of the resources and personnel of existing fire, rescue, and emergency medical services, and an analysis of the effectiveness of the fire and building codes;
- Analysis of short- and long-term fire prevention and control needs and emergency medical services needs;
- Plan to meet the fire prevention and control and emergency medical services needs;
- Estimate of cost and plans for financing the implementation and operation of the plan on a continuing basis, and a summary of problems anticipated in implementing the plan;
- Definition of the current and future fire protection and emergency medical environment by establishing and maintaining a comprehensive data base;
- Definition of goals and objectives for service levels;
- Identification and justification of the resources and technology necessary to develop and operate the fire protection and emergency medical system as recommended by the plan;
- Detailed program of action to implement and maintain the system as recommended by the plan; and
- Program of action to coordinate with the Department of Homeland Security, the County's fire prevention and control and emergency services resources into County-wide, regional, State, and national emergency management plans.

The County Council most recently approved a comprehensive update to the Fire, Rescue, and Emergency Medical Services Master Plan in October 2005.

3. NFPA Codes and Standards

The National Fire Protection Association (NFPA) is a non-profit organization that advocates fire prevention and public safety. NFPA has developed over 300 recommended codes and standards covering topics such as disaster planning, fire safety, staffing levels, and training requirements. These standards are voluntary and not legally binding, unless the County incorporates them into law or regulation. In several places, the County's approved Fire, Rescue, and Emergency Medical Services Master Plan makes reference to an NFPA code or standard as an objective the County should attempt to achieve. Among these include:

- NFPA 1006: Standard for Rescue Technician Professional Qualifications;
- NFPA 1500: Standard on Fire Department Occupational Safety and Health Program;
- NFPA 1582: Standard on Medical Requirements for Fire Fighters and Information for Fire Department Physicians;
- NFPA 1670: Standard on Operations and Training for Technical Rescue Incidents;
- NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments; and
- NFPA 1720: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments.

The County has adopted approximately 80 NFPA codes and standards into the County Code including the following standards:

- NFPA 13: Standard for the Installation of Sprinkler Systems;
- NFPA 30: Flammable and Combustible Liquids Code;
- NFPA 72E: Standard for Automatic Fire Detectors; and
- NFPA 101: Code for Life Safety from Fire in Building and Structures.

A complete list of all NFPA codes and standards adopted by the County appears in Appendix C.

CHAPTER III: ORGANIZATIONAL STRUCTURE

This chapter describes the organization of the Montgomery County Fire and Rescue Service (MCFRS) and its relationship with other entities involved in emergency preparedness and response in Montgomery County. As noted in the previous chapter, Chapter 2 of the County Code establishes MCFRS as a department of the County Government that operates as part of a County fire and rescue system that also includes the Fire and Rescue Commission and local fire and rescue departments (LFRDs).

A. Department Structure

MCFRS is a department of County Government headed by the Fire Chief. Chapter 21 of the County Code describes the role and responsibilities of the Fire Chief (see Chapter II of this report). The County Code specifies two MCFRS organizational divisions:

- The <u>Division of Operations</u> is responsible for the front line delivery of fire, rescue, and emergency medical services in the County.

- The <u>Division of Volunteer Services</u> is responsible for coordinating the operations and administration of volunteer personnel and the LFRDs.

The Fire Chief has created four additional MCFRS organizational units:

- The <u>Office of the Fire Chief</u> manages overall service delivery, planning, policy development, fiscal, and business functions of MCFRS.

- The <u>Administrative Services Division</u> provides information technology, human resource, budgeting, fiscal, procurement, technology, capital and facilities management, insurance, and other central administrative and management services for MCFRS.

- The <u>Wellness, Safety, and Training Division</u> is responsible for developing and operating health, safety, and training programs for County firefighters and emergency medical service providers.

- The <u>Community Risk Reduction Division</u> is responsible for assessing current and anticipated fire and emergency medical service risks and developing plans, outreach activities, mitigation processes, and law enforcement actions to protect the community.

Chapters V through X provide additional information on each of the divisions. Exhibit 3-1 on page 13 shows the MCFRS organization chart.

EXHIBIT 3-1: MONTGOMERY COUNTY FIRE AND RESCUE SERVICE ORGANIZATION CHART

Fire and Rescue Commission

Office of the Fire Chief

Fire Chief's Staff

Operations Division
- Field Operations
- Emergency Communications
- Apparatus
- Special Operations
- Emergency Medical Services

Administrative Services Division
- Information Technology
- Logistics
- Procurement
- Human Resources
- CIP and Facilities
- Budget and Grants

Volunteer Services Division
- Mobile Volunteer Corps
- LOSAP and Benefits

Wellness, Safety & Training Division
- Wellness-Fitness
- Training
- Safety

Community Risk Reduction Services Division
- Fire and Life Safety Education
- Fire Code Enforcement
- Public Information
- Recruitment
- Planning
- Fire and Explosives

Source: MCFRS

B. Montgomery County Fire and Rescue Commission

Chapter 21 of the County Code establishes the County Fire and Rescue Commission (FRC). The County Code grants the FRC authority to review and approve or disapprove "...any generally applicable Fire and Rescue Service policy or regulation proposed by the Fire Chief."[1] In addition, the Code states that the FRC must make recommendations on "...how the County can:

    (A). achieve and maintain effective, efficient, and equitable fire, rescue, and emergency medical services County-wide; and

    (B). improve the policy, planning, and regulatory framework for all fire, rescue and medical service operations."[2]

The Code further authorizes the FRC to approve policy and operational recommendations as detailed in Chapter V of this report.

The Code stipulates that the FRC consist of seven voting members appointed by the County Executive and confirmed by the County Council. By law, the FRC consists of:

- Two career fire-rescue personnel;
- Two volunteer members of local County fire-rescue departments; and
- Three citizens having no personal, family, or business connection with any County volunteer or career fire-rescue organization.

C. Local Fire and Rescue Departments

There are 19 local fire and rescue departments (LFRDs) in the County. Each LFRD is an independent State-chartered corporation that operates under the authority of the MCFRS Fire Chief, as defined in Chapter 21 of the County Code. The County Code authorizes LFRDs to provide direct fire suppression, rescue, or emergency medical services. LFRDs must comply with County laws, regulations, policies, and procedures, and the orders of the Fire Chief. Both career and volunteer personnel perform field operation duties. Additional information about LFRD stations and staffing appears in Chapter VI of this report.

D. Related Government and Community Organizations

MCFRS works with other governmental and community organizations to protect life and property in Montgomery County. MCFRS coordinates its activities with a variety of County, State, and Federal departments and agencies to improve emergency incident preparedness and response and to promote safety at home, at work, and travel. Table 3-1 lists the County, State, and Federal government departments and agencies that routinely interact with MCFRS. As discussed in Chapter II, MCFRS also has entered into mutual aid agreements with several nearby jurisdictions and with Federal agencies with installations in the County.

---

[1] Montgomery County Code: Chapter 21-2(d)(4)
[2] Montgomery County Code: Chapter 21-2(d)(1)

Table 3-1: Government Agencies and Departments that Interact with MCFRS

Montgomery County	State of Maryland	Federal Government

County Government:
• County Attorney's Office
• Department of Corrections and Rehabilitation
• Department of Environmental Protection
• Department of Finance
• Department of Health and Human Services
• Department of Housing and Community Affairs
• Department of Permitting Services
• Department of Public Works and Transportation Department
• Department of Technology Services
• Homeland Security Department
• Office of Human Resources
• Police Department
• Regional Service Centers
 	
Other Agencies:
• Montgomery County Public Schools
• Montgomery College
• Maryland-National Capital Park and Planning Commission
• Sheriff's Department
	• Emergency Numbers Systems Board
	• Maryland Department of the Environment (MDE)
	• Maryland Emergency Management Agency (MEMA)
	• Maryland Institute For Emergency Medical Services Systems (MIEMSS)
	• Maryland National Guard
	• State Fire Marshal's Office
	• State Police
	• State's Attorney
	• University of Maryland Fire-Rescue Institute (MFRI)
		• Bureau of Alcohol, Tobacco, Firearms and Explosives
		• Consumer Products Safety Commission
		• Department of Homeland Security
		  – Federal Emergency Management Agency (FEMA)
		  – National Domestic Preparedness Office, FBI
		  – National Disaster Medical System
		  – Domestic Emergency Support Teams, DOJ
		  – Nuclear Incident Response Team, DOE
		• Department of Transportation
		• Federal Bureau of Investigation

Source: MCFRS 2005 Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan

Several community organizations team with MCFRS to provide emergency medical care, provide disaster relief, and prevent and respond to fires and other dangerous incidents. These community organizations include:

- Local Hospitals;
- The American Red Cross – Montgomery County Chapter; and
- Electricity, Gas, and Water Supply Utilities.

E. Volunteer and Career Organizations

Several professional organizations represent MCFRS volunteer and career personnel. These organizations include:

- The <u>Montgomery County Volunteer Fire-Rescue Association</u> represents the interests of volunteers and serves as the representative of the 19 LFRDs for purposes of negotiating with the Fire Chief on all major policy changes.

- The <u>International Association of Fire Fighters – Local 1664</u> is the bargaining agent for MCFRS uniformed personnel of the rank of Firefighter/Rescuer I through Captain.

- The <u>Montgomery County Career Fire-Rescue Officers Association</u> addresses issues of concern to career officers of the ranks of Battalion Chief through Division Chief.

- The <u>Hispanic Firefighters Association</u> promotes the recruitment, retention, and career advancement of Hispanic firefighters and rescuers and offers life safety education to the Hispanic community and to other residents of the County.

- <u>Progressive Firefighters United of Montgomery County</u> promotes the recruitment, retention, and career advancement of African American firefighters and rescuers and provides fire safety education in the African American community.

CHAPTER IV: OPERATING BUDGET OVERVIEW

This chapter provides an overview of the Montgomery County Fire and Rescue Service (MCFRS) revenue sources, budget and staffing. Unless otherwise noted, all revenue, expenditure, and position data included in this chapter are taken from the approved FY07 MCFRS operating budget and work complement.

A. Revenue Sources

The approved FY07 operating budget estimates that the County will collect more than $184 million in MCFRS-related revenues during the fiscal year. In FY06, the County received more than $167 million in MCFRS revenues. Three major funding sources contribute to MCFRS revenues:

1. Fire District Tax revenues;
2. Grant funds; and
3. Fee revenues.

Fire District Tax: Chapter 21 of the County Code establishes the Fire District Tax as a tax based on the assessed value of taxable property in the Fire Tax District. The entire County lies in the Fire Tax District. The Fire District Tax is part of the overall County property tax governed by the Charter limit on property tax revenue.

The County Code authorizes the Council to set the Fire District Tax at a rate sufficient to fund:

- Management, operation, and maintenance of all fire and rescue services;
- Purchase (including debt service), construction, maintenance, and operation of real and personal property necessary or incidental to fire and rescue services;
- Operation of the Commission and the Fire and Rescue Service;
- All tax-supported expenditures of the local fire and rescue departments; and
- Awards for the Length of Service Awards Program.

For FY07, the County assessed a Fire District Tax of $0.134 per $100 of assessed value and is projected to raise more than $179 million. In FY06, the Fire District Tax raised more than $161 million, an amount more than 96 percent of total MCFRS revenues.

Grants: MCFRS receives grant revenues from the Federal and State governments. Most grants are designated for a specific purpose or use. For example, MCFRS receives State grants for the acquisition or rehabilitation of apparatus, equipment, and facilities, and for the County's portion of 911-system fees collected by the State. In FY06, grant revenues represented about two percent of total MCFRS revenue.

Fee Revenues: MCFRS charges user fees for services including fire code enforcement permits. In FY06, fee revenues represented about one percent of total MCFRS revenue.

Table 4-1 shows actual MCFRS revenues by source for FY06.

Table 4-1: Actual MCFRS Revenues by Source, FY06

Revenue Source	Amount ($1,000s)	Percentage
Fire District Tax	$161,260	96.4
Grant Funds	$3,262	1.9
Fee Revenues	$1,480	0.9
Other Revenues*	$1,331	0.8
Total	$167,332	100.0%

Source: MCFRS
* Other revenues include investment income and civil citation payments.

LFRDs engage in independent fundraising efforts. LFRDs use these funds for a variety of purposes including the purchase of equipment and renovation of facilities. LFRDs do not routinely report their fundraising revenues to MCFRS.

B. Operating Budget Summary

For FY07, the Council approved an operating budget of about $178 million for MCFRS. Table 4-2 shows a breakdown of MCFRS personnel costs and operating expenses by division. More than three-quarters of the total MCFRS FY07 operating budget is allocated to the Operations Division, the unit that provides front line response to emergency incidents (see Chapter VI).

Personnel costs (salaries, benefits, and overtime) are by far the most significant component of the MCFRS operating budget. In FY07, personnel costs account for 87 percent of total budgeted operating budget expenditures.

The most significant MCFRS non-personnel costs relate to the operations of the Public Safety Training Academy and other activities associated with the Wellness, Safety, and Training Division.

The MCFRS operating budget funds the salaries and benefits for 32 mechanics and administrative aides assigned to LFRDs. The FY07 operating budget includes about $2.6 million to pay these salaries and benefits.

The FY07 approved operating budget also includes $3.7 million dollars that MCFRS distributes among the LFRDs to pay for operating expenses such as apparatus, utilities, fuel, and vehicle maintenance.[1] In addition, MCFRS provides a stipend to LFRDs for "living supplies," such as cleaning and household supplies.

---

[1] MCFRS provides direct payments to 18 of 19 LFRDs. The Bethesda-Chevy Chase Rescue Squad does not receive direct payment from MCFRS. All LFRDs receive support in the form of training, personnel and equipment.

Table 4-2: MCFRS Personnel Costs and Operating Expenses by Division, FY07
($ in 1,000s)

Division	Personnel	Operating	Total	% Total
Fire Chief* / Fire & Rescue Commission	$1,445	$150	$1,595	1%
Operations	$131,844	$3,700	$135,544	76%
Administrative Services	$4,509	$3,987	$8,496	5%
Volunteer Services	$364	$2,067	$2,431	1%
Wellness, Safety, and Training	$7,372	$9,458	$16,830	9%
Community Risk Reduction	$6,134	$654	$6,788	4%
Salaries and Wages – LFRD Staff	$2,594	$0	$2,594	1%
Payments to LFRDs	---	$3,704	$3,704	2%
Total	**$154,260**	**$23,720**	**$177,982**	**100%**
% Total	**87%**	**13%**	**100%**	**---**

Source: MCFRS (percents do not add to 100% because of rounding)
*Includes Office of Internal Affairs

The FY07 approved operating budget continued a multi-year growth trend in MCFRS funding. From FY02 through FY07, the approved MCFRS operating budget rose by more than $76 million, a 75 percent increase. During that period, the MCFRS operating budget increased by an average rate of 12 percent per year. As discussed later in this chapter, expanding personnel costs have been the most significant factor in the steep increase in MCFRS funding. Exhibit 4-1 illustrates the growth of the MCFRS budget over the last seven years.

Exhibit 4-1: MCFRS Total Operating Budget, FY01-07[2]
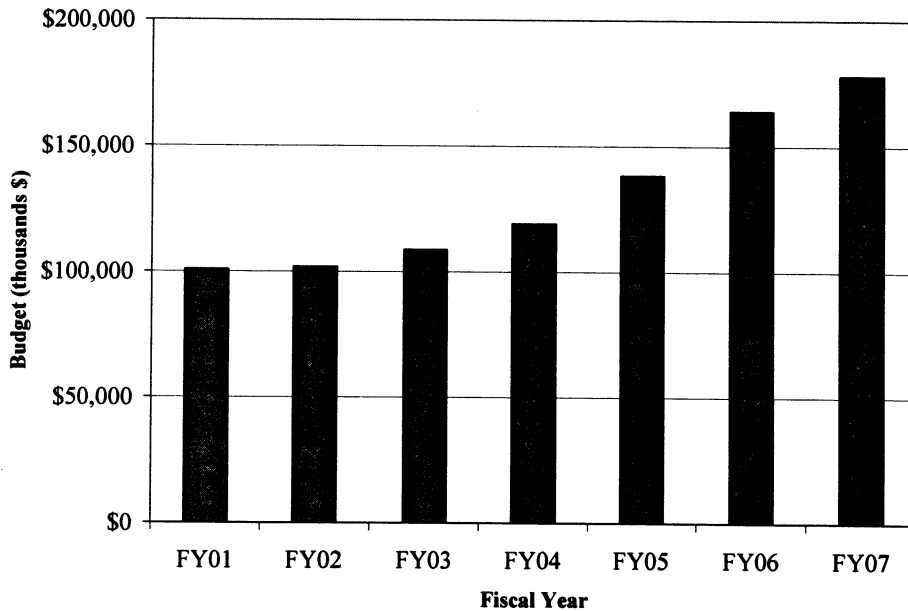
Source: County Government, Office of Management and Budget

---

[2] Operating budget expenditures are actual data for FY01-06 and budgeted data for FY07.

Supplemental Appropriations: On eight occasions in FY05 and FY06, the County Executive requested Council authorization to fund MCFRS expenditures not included in the approved annual operating budget. These "supplemental appropriations" either represent mid-year additions to the County-funded portion of the MCFRS budget or authorize the Department to spend resources received through a State or Federal grant.

Tables 4-3 and 4-4 list the MCFRS supplemental appropriations to the operating budget approved by Council for FY05 and FY06. The table excludes bond funded and capital budget appropriations. As shown in Table 4-3, the Council approved County-funded supplemental appropriations totaling greater than $11 million in FY06, an amount equivalent to almost seven percent of the MCFRS operating budget approved at the beginning of the fiscal year.

Table 4-3: MCFRS Supplemental Appropriations, County Funds, FY05-06

Fiscal Year	Purpose/Use	Source of Funds	Amount
FY05	Outreach and Recruitment	General Fund	$200,000
	Additional EMS Capacity (Flex Unit)	Fire Tax District Fund	$928,000
	Apparatus Maintenance	Fire Tax District Fund	$760,000
	Restructuring of MCFRS	Fire Tax District Fund, General Fund	$796,000
	FY05 Total		**$2,684,000**
FY06	Interim Clarksburg Service	Fire Tax District Fund	$3,911,000
	Apparatus Management Plan	General Fund	$2,969,000
	Interim Clarksburg Fire Station	Fire Tax District Fund	$1,940,000
	Fleet Maintenance and Improvement	General Fund	$2,500,000
	FY06 Total		**$11,050,000**

Source: MCFRS

Table 4-4: MCFRS Supplemental Appropriations, State and Federal Grants, FY05-06

Fiscal Year	Purpose/Use	Source of Funds	Amount
FY05	Emergency Preparedness/Response	Federal Grant	$973,000
	Homeland Security	Federal Grant	$748,000
	Senator Amoss Grant	State Grant	$1,277,500
	FY05 Total		**$2,998,500**
FY06	Homeland Security	Federal Grant	$214,000
	Senator Amoss Grant	State Grant	$1,278,000
	Homeland Security	Federal Grant	$294,000
	Homeland Security	Federal Grant	$2,630,000
	FY06 Total		**$4,416,000**

Source: MCFRS

C. MCFRS Positions and Personnel Costs

As of January 2007, MCFRS reports the Department's work complement includes 1,187 full-time and three part-time positions.[3] Uniformed personnel comprise 1,081 or 91 percent of all MCFRS positions. The MCFRS Operations Divisions is by far the largest MCFRS unit with 86 percent of all positions and 94 percent of uniformed positions. Table 4-5 shows the number of MCFRS career uniform and civilian positions.

Table 4-5: MCFRS Career Uniform and Civilian Positions by Division, January 2007

Division	Uniform Positions	Civilian Positions	Total Positions	% of Total Positions
Fire Chief* / Fire & Rescue Commission	3	5	8	1%
Operations	1,014	9	1,023	86%
Administrative Services	4	29	33	3%
Volunteer Services	1	4	5	<1%
Wellness, Safety, and Training	18	11	29	2%
Community Risk Reduction Services	41	19	60	5%
LFRD Employees - Mechanics & Admin. Personnel	---	32	32	3%
Total	**1,081**	**109**	**1,190**	**100%**

*Including Office of Internal Affairs

---

[3] The FY07 MCFRS approved personnel complement (issued in July 2006) lists 1,164 full-time and five part-time positions in MCFRS – 17 fewer full-time and two more part-time positions than reported in January 2007. In FY07 to date, the Council has approved supplemental appropriations creating 11 new full-time MCFRS positions. MCFRS believes that the approved personnel complement excluded six existing full-time positions and included two non-existent part-time positions.

The table above includes career uniform and paid civilian positions. Chapter VI discusses the number of volunteers that support MCFRS. The department's staffing plan assumes the LFRDs fill the equivalent of 32 positions countywide on nights and weekends. At present, MCFRS does not have actual data on the exact number of hours served by LFRD operational and administrative volunteers.

Salaries and Benefits: As shown in Table 4-6, the FY07 MCFRS approved operating budget includes $154 million in total personnel costs. Salaries comprise almost $87 million or 56 percent of total personnel costs. The FY07 operating budget includes $53 million in MCFRS employee benefits. MCFRS benefits cost an amount equal to 62 percent of MCFRS salaries. Across all County Government departments, FY07 employee benefits total to an amount equal to 41 percent of salaries.[4] MCFRS benefits are higher relative to salaries than in most other departments because public safety employees receive more costly benefits – primarily retirement benefits -- than most other County Government employees.

Table 4-6: MCFRS Budgeted Personnel Costs by Category, FY07
($ in 1,000s)

Division	Salaries	Benefits	Adjustments	Lapse	Overtime	Total
Fire Chief* / FRC	$800	$423	$96	$0	$126	$1,445
Operations	$73,154	$46,874	$9,367	-$1,799	$4,247	$131,843
Administrative Services	$2,942	$1,144	$192	$0	$231	$4,509
Volunteer Services	$2,142	$799	$0	$0	$16	$2,957
Wellness, Safety, Training	$3,941	$2,038	$202	$0	$1,190	$7,371
Community Risk Reduction	$3,727	$2,059	$3	-$21,000	$366	$6,134
Total	$86,706	$53,337	$9,860	-$1,820	$6,176	$154,259

*Including Office of Internal Affairs

Salary and Pay Adjustments: The FY07 approved budget includes nearly $10 million in MCFRS personnel costs labeled as "salary adjustments," "pay adjustments," or "miscellaneous costs." MCFRS reports that about $3 million of this sum covers salary differentials paid to paramedics and other responders with advanced training and skills. According to the Department, the remainder of the "adjustments" covers unspecified personnel costs resulting from the collective bargaining process but not directly budgeted as salaries or benefits.

Lapse: Lapse refers to the reduction in budgeted personnel costs to account for turnover, vacancies, and delays in filling positions. For FY07, the Executive budgeted about $1.8 million in MCFRS lapse. The amount of budgeted lapse represents about 1.2 percent of total budgeted personnel cost. In contrast, the Office of Management and Budget reports that the FY07 budgeted lapse rate for the entire County Government (across all departments) was 2.2 percent. MCFRS does not maintain data on actual lapse rates. MCFRS reports that the Department has experienced an average of 21 to 26 vacant positions or between 1.8 and 2.2 percent of total MCFRS positions.

---

[4] Source: Office of Management and Budget

<u>Overtime</u>: MCFRS pays overtime when employees work beyond their regularly scheduled hours to fill in for vacant positions or for personnel who are on leave, detail, light duty, or military duty. The FY07 approved operating budget includes about $6.2 million for MCFRS overtime. For each of the past seven years, MCFRS has budgeted about $6 million for overtime. As illustrated in Exhibit 4-2, actual overtime expenditures for the past two years have been more than double the budgeted amount.

Exhibit 4-2: MCFRS Overtime - Approved Budget* and Actual Expenditures, FY01-06
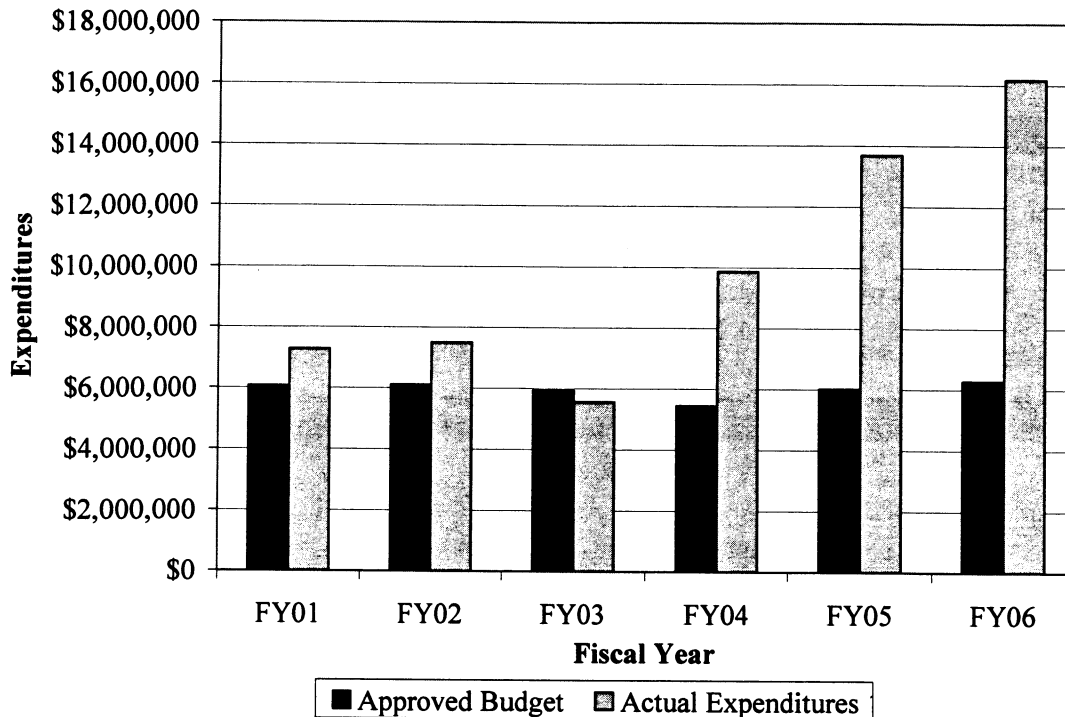
Source: Office of Management and Budget

* Approved budget amounts represent the budget level at the start of each fiscal year. In some years, the MCFRS overtime budget was adjusted mid-year to reflect supplemental appropriations or budgetary transfers. Most of these mid-year adjustments involved only marginal changes in the overtime budget. In FY06, the MCFRS overtime budget increased mid-year by $2.2 million.

The Executive has not requested a supplemental appropriation to pay for unbudgeted overtime costs. It appears that the department has covered unbudgeted overtime by using salary adjustment, unbudgeted lapse, and other surplus personnel funding in the approved budget.

<u>Position and Personnel Cost – Comparative Trends</u>: While both the size of the MCFRS workforce and MCFRS personnel costs have increased in recent years, they have not grown at a similar pace. Rather, a large disparity exists in the rate of increase for two seemingly related measurements. During the period from FY02 through FY07, the number of MCFRS positions increased by about 17 percent. Over the same period, MCFRS personnel costs grew by about 83 percent. The rapid rise in MCFRS personnel costs over the past six years likely evidences the marked growth in MCFRS per employee compensation cost that has occurred in recent years.

Exhibit 4-3 shows the total number of MCFRS career employees from FY02 to FY07.
Exhibit 4-4 shows MCFRS personnel costs for MCFRS from FY01 to FY07.

Exhibit 4-3: Total MCFRS Career Positions, FY01–07[5]
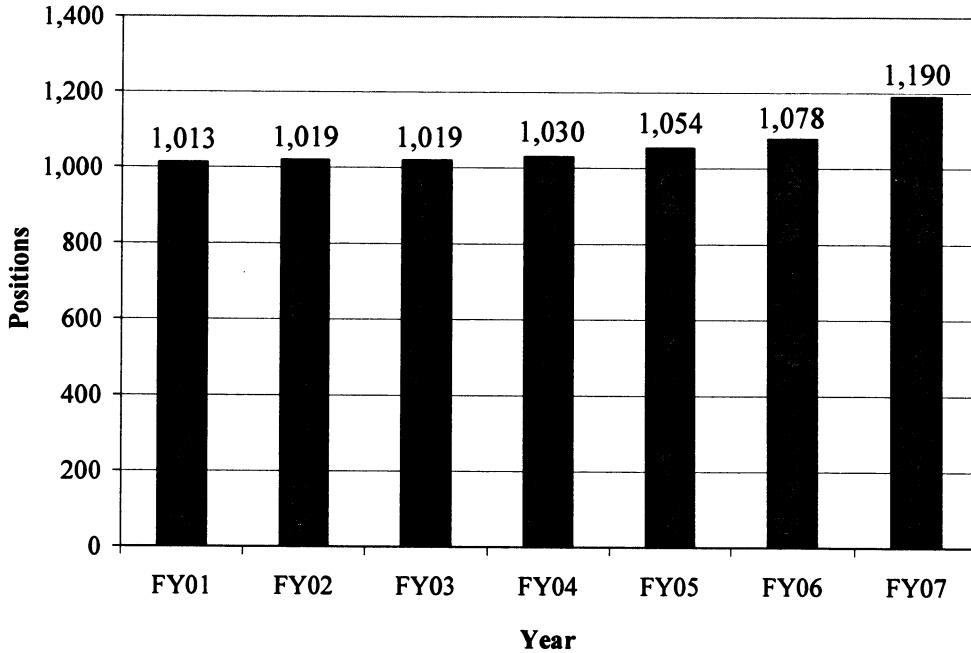
Source: Office of Management and Budget; MCFRS
Note: Number of positions reflect actual total for one month in each fiscal year as provided by MCFRS.

Exhibit 4-4: MCFRS Personnel Expenditures, FY01-07[6]
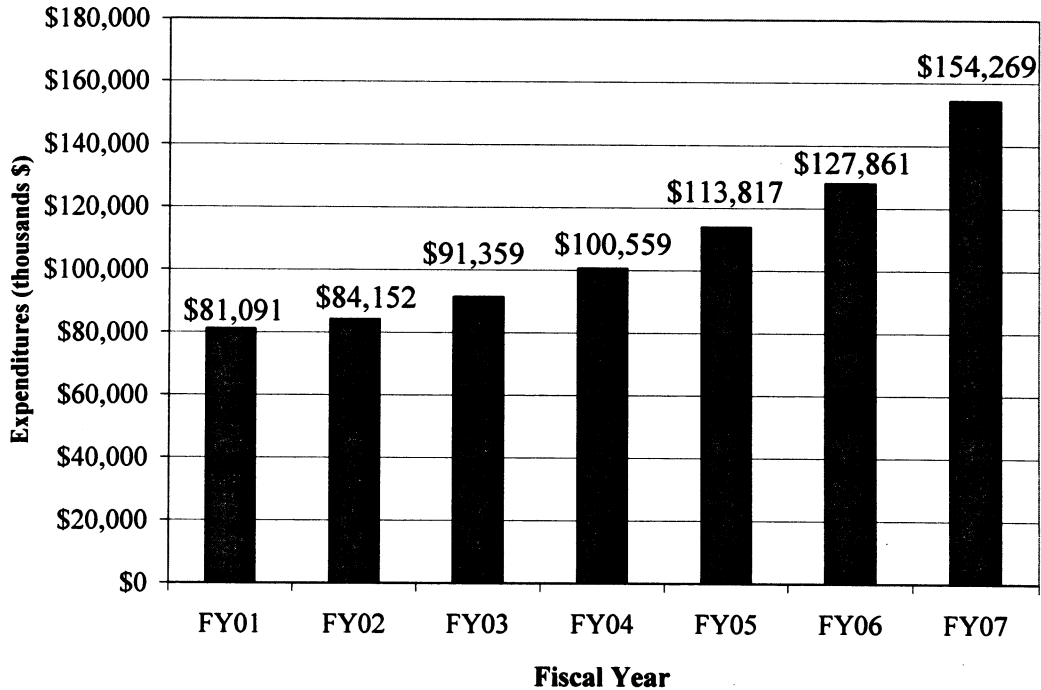
Source: Office of Management and Budget

---

[5] Position totals for FY01-06 are taken from the Approved Personnel Complements for FY01-06. FY07 position totals were provided by MCFRS (as of January 2007).
[6] Personnel expenditures are actual data for FY01-06 and budgeted data for FY07.

Exhibit 4-5 graphically compares the percent increase in the MCFRS operating budget, MCFRS positions, and MCFRS personnel costs from FY02 to FY07.

Exhibit 4-5: Percent Increase in MCFRS New Positions and Total Personnel Costs, FY02-07
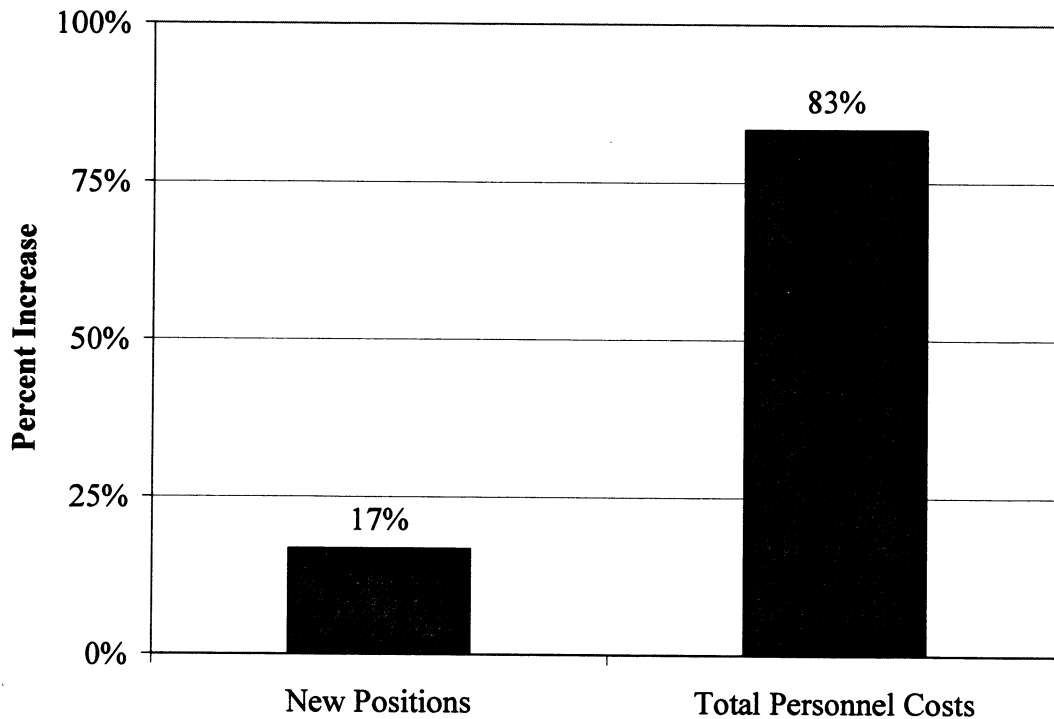
D. Capital Improvements Program / Capital Budget

While the scope of this report includes only the MCFRS operating budget, OLO notes that the County has programmed significant resources for the MCFRS capital improvement program (CIP). For the six-year period from FY07 through FY12, the approved CIP programs over $100 million for MCFRS projects. For FY07, the Council appropriated $45 million for 14 MCFRS capital projects including:

- Purchase of replacement apparatus;
- Construction of the Clarksburg, East Germantown, Travilah, and West Germantown Stations;
- Construction of an addition to the Burtonsville Fire Station;
- Replacement of Takoma Park Station #2;
- Relocation of the Wheaton Volunteer Rescue Squad;
- Improvement of heating, air conditioning, ventilation, life safety, and vehicle exhaust systems at multiple stations;
- Roof replacement and paved area resurfacing at multiple stations; and
- Retrofitting multiple stations to better accommodate female personnel.

CHAPTER V: OFFICE OF THE FIRE CHIEF AND FIRE & RESCUE COMMISSION

The Office of the Fire Chief manages overall service delivery, planning, fiscal, and business functions of the Montgomery County Fire and Rescue Service (MCFRS). The budget of the Office of the Fire Chief includes resources to support the County's Fire and Rescue Commission (FRC) and the Office of Internal Affairs.

A. Budget and Staffing Overview

As shown in Table 5-1, the approved FY07 operating budget for the Office of the Fire Chief, including funding for the Fire and Rescue Commission, is almost $1.6 million, or about one percent of the total MCFRS operating budget. Personnel costs comprise 91 percent of the Office's operating budget.

Table 5-1: Office of the Fire Chief and Fire & Rescue Commission
Approved FY07 Personnel Costs and Operating Expenses

Expenditure Category	Amount ($1,000s)
Personnel Costs	$1,445
Operating Expenses	$150
Total Operating Costs	**$1,595**

Source: MCFRS

The Office of Fire Chief has an approved FY07 personnel complement of three uniformed and five civilian positions. Positions in this Office represent about one-half of one percent of the total MCFRS career workforce.

Table 5-2: Office of the Fire Chief and Fire & Rescue Commission
Career Uniform and Civilian Positions, January 2007

Uniform		Civilian	
Position	**Number**	**Position**	**Number**
Captain	1	Manager I/II/III	1
Battalion Chief	1	Senior Executive Administrative Aide	1
Fire Chief	1	Administrative Specialist II	1
Total	**3**	Office Services Coordinator	1
		Program Manager	1
		Total	**5**

Source: MCFRS

B. Major Office Responsibilities

As established in Chapter 21 of the County Code, the Fire Chief is the uniformed department head of the MCFRS. The major responsibilities of the Office of the Fire Chief include:

Operational Management: The County Code empowers the Fire Chief with "full authority over all fire, rescue, and emergency medical services in the County, including any fire, rescue, and emergency medical services provided by local fire and rescue departments." The Office of the Fire Chief manages certification under the Integrated Emergency Command Structure (IECS), the Regulation that authorizes career and volunteer personnel to serve in each specific rank.

Overall Direction and Management: The Fire Chief supervises senior MCFRS staff and meets with LFRD representatives to communicate policy, and evaluate the effectiveness of service delivery. The Office of the Fire Chief manages the development and implementation of MCFRS policies and regulations.

Internal Affairs: The Fire Chief appoints the MCFRS Internal Affairs Officer. The Internal Affairs Officer is responsible for monitoring compliance with County laws, regulations, policies, and procedures and for investigating all matters as assigned by the Fire Chief. The Office of the Fire Chief oversees the disciplinary process for complaints or actions against any employee or volunteer in the MCFRS.

Honor Guard: The Office of the Fire Chief manages the activities of the MCFRS Honor Guard. The MCFRS Honor Guard participates in ceremonial functions and funeral services. The MCFRS Honor Guard consists of 21 members and participated in about 100 events in FY06.

Staff Support to the FRC: Staff in the Office of the Fire Chief provide administrative support for the County's Fire and Rescue Commission.

C. Montgomery County Fire and Rescue Commission

As discussed in Chapter II of this report, the County Code establishes the County Fire and Rescue Commission (FRC). The Code grants the FRC authority to review and approve or disapprove "any generally applicable Fire and Rescue Service policy or regulation proposed by the Fire Chief." In addition, the Code states that the FRC must make recommendations on "...how the County can:

- (A). achieve and maintain effective, efficient, and equitable fire, rescue, and emergency medical services County-wide; and

- (B). improve the policy, planning, and regulatory framework for all fire, rescue and medical service operations."[1]

---

[1] Montgomery County Code: Chapter 21-2(d)(1)

The Code further authorizes the FRC to approve policy, operational, and other recommendations including to:

"(A)   advise the Fire Chief, County Executive, and County Council on any matter relating to fire, rescue and emergency medical services, and review the performance of the County Fire and Rescue Service and any action taken or policy adopted by the Service;

(B)   advise the Chief, Executive, Council on County-wide policies, standards, procedures, plans, and programs that should apply to all fire, rescue, and emergency medical service operations;

(C)   review and make recommendations regarding the master plan for fire, rescue, and emergency medical services;

(D)   recommend and comment on legislation, regulations, and policies that apply to or affect the Fire and Rescue Service;

(E)   review and recommend any appropriate changes in communications and dispatch procedures for emergency communications centers;

(F)   recommend guidelines for curriculum and programs of the Public Safety Training Academy and other training programs for Fire and Rescue Service employees and volunteers;

(G)   recommend to the Chief, Executive, and Council a benefits program to provide financial protection for volunteers and their families if a volunteer becomes injured, disabled, or dies in the line of duty;

(H)   recommend to the Chief, Executive, and Council policies and programs to recruit and retain volunteers; and

(I)   promote coordination with other County-wide, regional, state, and national emergency management agencies and activities."[2]

The County Code requires that the FRC submit an annual report to the County Executive and County Council describing it activities and recommendations.

---

[2] Montgomery County Code: Chapter 21-2(d)(3)

CHAPTER VI: OPERATIONS DIVISION

Chapter 21 of the County Code establishes the position of Chief of the Division of Fire and Rescue Operations. The County Code grants the Chief of the Division of Fire and Rescue Operations with "...operational authority over fire, rescue, and emergency medical services activities of the Fire and Rescue Service, including the local fire and rescue departments, as assigned by the Fire Chief."[1]

A. Budget and Staffing Overview

The Operations Division is, by far, the largest unit within the Montgomery County Fire and Rescue Service (MCFRS). As shown in Table 6-1, the approved FY07 operating budget for the Operations Division is $135.5 million and 76 percent of the total MCFRS operating budget. Personnel costs comprise 91 percent of the Division's operating budget.

Table 6-1: MCFRS Operations Division
Approved FY07 Personnel Costs and Operating Expenses

Expenditure Category	Amount ($1,000s)
Personnel Costs	$131,844
Operating Expenses	$3,700
Total Operating Costs	$135,544

Source: MCFRS

According to the approved FY07 personnel complement for the Operations Division has 1,014 uniform and nine civilian positions. Positions in this division represent about 86 percent of the total MCFRS career workforce.

Table 6-2: MCFRS Operations Division
Career Uniform and Civilian Positions, January 2007

Uniform		Civilian	
Position	Number	Position	Number
Firefighter/Rescuer	576	Program Manager I/II	1
Master Firefighter	199	Fiscal Assistant	1
Lieutenant	93	Office Services Coordinator	4
Captain	115	Equipment Service Coordinator	1
Battalion Chief	23	Engine Manager	1
Assistant Chief	7	Parts Manager	1
Division Chief	1	Total	9
Total	1014		

Source: MCFRS

---

[1] Montgomery County Code: Chapter 21-3 (c).

The major responsibilities of the Operations Division are the task of five sections:

- Field Operations Section;
- Emergency Medical Services Section;
- Special Operations Section;
- Emergency Communications Center; and
- Apparatus Management Section.

Section B of this chapter describes Field Operations duties, organizational structure, staffing, and workload. Section C addresses the responsibilities of the Emergency Medical Services Section, the Special Operations Section, the Emergency Communications Center, and the Apparatus Management Section

B. Field Operations

The Field Operations Section is responsible for the front line delivery of fire, rescue, and emergency medical services in the County. The Section is responsible for the management and immediate direction of uniformed personnel at fire and rescue stations in the County. Career and volunteer personnel serve as first responders to emergency incidents in the County and respond to certain out-of-County incidents (see Chapter II).

1. Local Fire and Rescue Departments

There are 19 local fire and rescue departments (LFRDs) in the County. Each LFRD is an independent State-chartered corporation that operates, under the authority of the MCFRS Fire Chief, at least one fire and/or rescue station. Table 6-3 lists the 34 fire and rescue stations grouped by LFRD. One station, Station 35 in Clarksburg, is operated by MCFRS and is not affiliated with a LFRD. A map of fire and rescue stations in the County appears in Appendix D.

Both career and volunteer personnel staff fire and rescue stations in the County and perform field operations duties. MCFRS operates under an Integrated Emergency Command Structure (IECS) that defines the authority and responsibilities for all career and volunteer personnel. The Operations Division Chief is responsible for the personnel management and immediate direction of those uniformed personnel who are assigned to all fire and rescue stations in the County.

MCFRS has organized its 34 stations into five battalions. Each Field Operations battalion consists of at least 150 career personnel. The number of active operational volunteers varies among the battalions.

Table 6-3: Montgomery County Fire and Rescue Stations, January 2007

Fire and Rescue Department	Stations	
Bethesda Fire Department	Station 6	6600 Wisconsin Ave, Bethesda
	Station 20	9041 Old Georgetown Road, Bethesda
	Station 26	6700 Democracy Boulevard, Bethesda
Bethesda-Chevy Chase Rescue Squad	Rescue 1	5020 Battery Lane, Bethesda
Burtonsville Volunteer Fire Department	Station 15	13900 Old Columbia Pike, Burtonsville
Cabin John Park Volunteer Fire Department	Station 10	8021 River Road, Bethesda
	Station 30	9404 Falls Road, Potomac
Chevy Chase Fire Department	Station 7	8001 Connecticut Avenue, Chevy Chase
Damascus Volunteer Fire Department	Station 13	26334 Ridge Road, Damascus
Gaithersburg-Washington Grove Volunteer Fire Department	Station 8	801 Russell Avenue, Gaithersburg
	Station 28	7272 Muncaster Mill Road, Derwood
Germantown Volunteer Fire Department	Station 29	20001 Crystal Rock Drive, Germantown
Glen Echo Volunteer Fire Department	Station 11	5920 Massachusetts Avenue, Bethesda
Hillandale Volunteer Fire Department	Station 12	10617 New Hampshire Ave., Silver Spring
	Station 24	13216 New Hampshire Ave., Silver Spring
Hyattstown Volunteer Fire Department	Station 9	25801 Frederick Road, Clarksburg
Kensington Volunteer Fire Department	Station 5	10620 Connecticut Avenue, Kensington
	Station 18	12251 Georgia Avenue, Wheaton
	Station 21	12500 Veirs Mill Road, Rockville
	Station 25	14401 Connecticut Avenue, Layhill
Laytonsville District Volunteer Fire Department	Station 17	21400 Laytonsville Road, Laytonsville
Rockville Volunteer Fire Department	Station 3	380 Hungerford Drive, Rockville
	Station 23	121 Rollins Avenue, Rockville
	Station 31	12100 Darnestown Road, N. Potomac
	Station 33	11430 Great Falls Road, Potomac
Sandy Spring Volunteer Fire Department	Station 4	17921 Brooke Road, Sandy Spring
	Station 40	16911 Georgia Avenue, Olney
Silver Spring Volunteer Fire Department	Station 1	8131 Georgia, Avenue, Silver Spring
	Station 16	111 University Boulevard E., Silver Spring
	Station 19	1945 Seminary Road, Silver Spring
Takoma Park Volunteer Fire Department	Station 2	7201 Carroll Avenue, Takoma Park
Upper Montgomery County Volunteer Fire Dept.	Station 14	19801 Beallsville Road, Beallsville
Wheaton Volunteer Rescue Squad	Rescue 2	11435 Grandview Avenue, Wheaton
MCFRS - Clarksburg	Station 35	22610 Gateway Center Drive, Clarksburg

2. Career Field Operations Personnel

The 34 fire stations in the County are staffed by over 900 career firefighter/rescuers. Field Operations personnel serve at one of the following ranks:

- <u>Firefighter/Rescuers I, II, and III</u> provide front line fire suppression, rescue, and emergency medical care under the supervision of command staff.

- <u>Master Firefighter/Rescuers</u> act as primary apparatus driver/operators and serve as front line fire apparatus officers for fire suppression, rescue, and emergency medical response.

- <u>Lieutenants</u> serve as first level supervisors of personnel responding to fire, rescue, and emergency medical incidents. Lieutenants are responsible for the operation of a fire/rescue emergency vehicle at the scene of an emergency and for supervision of all personnel assigned to that vehicle.

- <u>Captains</u> serve as primary station supervisors and as second level supervisors of personnel responding to fire, rescue, and emergency medical incidents. Captains manage staff from multiple vehicles at an incident and supervise all personnel assigned to a shift at a single fire/rescue station.

- <u>Battalion Chiefs</u> serve as the first response command officer for all major fire or rescue incidents. Battalion Chiefs supervise personnel at five to six stations and conduct daily visits to each fire station to perform administrative duties and oversee operations.

- <u>Assistant Chiefs</u> are senior managers that direct major sections of MCFRS. Three Assistant Chiefs lead one of the three primary field operations shifts.

Uniformed field personnel of any rank who maintain current EMT-I[2] certification serve as paramedics. Paramedics respond to emergency medical incidents involving life-threatening conditions for the patient.

Most Field Operations career personnel are assigned to one of the three shifts. Each shift consists of about 300 career personnel that are on-duty for 24 hours and then off-duty for the following 48 hours. MCFRS reports that on average, adjusting for earned leave, training, detail work, and light duty, a career shift firefighter is available to respond to calls 1,920 hours per year. On average, a career shift paramedic is available to respond to calls 1,640 hours per year according to MCFRS calculations.

---

[2] EMT-I is the *Medical Technician-Intermediate: National Standard Curriculum* developed by the National Highway Traffic Safety Administration

Table 6-4 shows the staffing breakdown of career Field Operations positions by LFRD and rank. The table includes 36 firefighter/rescuer positions that were approved for FY07 and that will be filled in the last quarter of the fiscal year.

Table 6-4: MCFRS Career Uniform Positions by LFRD and Rank, December 2006

	Firefighter I - III	Master Firefighter	Lieutenant	Captain	Battalion Chief	Assistant Chief	Total
Battalion 1							
Burtonsville	9	7	3	3	1	0	23
Hillandale	39	12	6	6	1	0	64
Silver Spring	45	15	6	9	1	0	76
Takoma Park	21	6	3	3	1	0	34
Subtotal	114	40	18	21	4	0	197
Battalion 2							
Bethesda	27	13	4	9	1	0	54
Cabin John	25	12	6	6	1	0	50
Chevy Chase	15	3	0	3	1	0	22
Glen Echo	15	3	0	3	1	0	22
Subtotal	82	31	10	21	4	0	148
Battalion 3							
Germantown	30	15	12	3	1	0	61
Rockville	74	32	17	12	1	0	136
Upper Montgomery	10	6	3	3	1	0	23
Subtotal	115	53	32	18	3	0	220
Battalion 4							
Kensington	59	19	9	10	1	0	98
Wheaton Rescue	7	3	2	1	1	0	14
Sandy Spring	17	9	3	6	1	0	36
Subtotal	83	31	14	17	3	0	148
Battalion 5							
Damascus	15	6	1	3	1	0	26
Gaithersburg	46	12	6	6	1	0	71
Hyattstown	15	3	0	3	1	0	22
Laytonsville	15	4	1	3	1	0	24
Clarksburg	23	11	3	3	0	0	40
Subtotal	114	36	11	18	4	0	183
Field Operations	1	2	0	10	2	3	17
New FY07 Positions (yet to be allocated)	36	0	0	0	0	0	36
Total	**544**	**193**	**85**	**105**	**19**	**3**	**949**

Source: MCFRS

3. Volunteer Field Operations Personnel

Volunteers serve in the field as firefighters, rescuers, and emergency medical service providers. Field Operations volunteers perform front line fire suppression, rescue, and emergency medical care activities together with career personnel. Volunteers can attain the ranks of Firefighter I, Firefighter II, Firefighter III, Master Firefighter, Lieutenant, Captain, Battalion Chief, Assistant Chief, Deputy Chief, and Chief.

Field Operations volunteers receive training at the County's Public Safety Training Academy, the University of Maryland Fire and Rescue Institute, and other fire-rescue training facilities. In addition, several LFRDs also offer in-station training for their operational volunteers. Volunteers that earn State Emergency Medical Technicians-Basic (EMT-B) certification may respond to emergency medical incidents. Volunteers that are certified as Firefighter/Rescuers are eligible to respond to any fire, rescue, or emergency medical incident. Many volunteers have attained rank of Medical Attendant, Master Medical Attendant, or Paramedic (EMT-P) or EMT-I certification.

Approximately 1,000 volunteers have received Integrated Emergency Command Structure (IECS) certification, which qualifies them to respond to emergency incidents. In Calendar Year 2005, a total of 874 volunteers maintained "active" status (as determined through the Length of Service Award Program points system -- see Chapter VII). A total of 684 volunteers were both IECS certified and maintained "active" status. An additional 226 active volunteers supported LFRDs by performing administrative services, fund raising, station and apparatus maintenance, and property management duties. Table 6-5 shows the number of active volunteers by LFRD for Calendar Year 2005.

Volunteers primarily work in an operational capacity during evening and weekend hours. The department's staffing plan assumes the LFRDs fill the equivalent of 32 positions countywide on nights and weekends. At present, MCFRS does not have actual data on the exact number of hours served by operational and administrative volunteers. As discussed in Chapter VII, the Division of Volunteer Services and the Department of Technology Services have begun to develop an automated system to track data on the actual hours served and activities performed by MCFRS volunteers.

Table 6-5
Active Volunteers[3] by LFRD, Calendar Year 2005

LFRD	Total Active Volunteers
Bethesda-Chevy Chase Rescue Squad	159
Bethesda Fire Department	6
Burtonsville Volunteer Fire Department	49
Cabin John Park Volunteer Fire Department	47
Chevy Chase Fire Department	0
Damascus Volunteer Fire Department	30
Gaithersburg-Washington Grove Volunteer Fire Dept.	46
Germantown Volunteer Fire Department	34
Glen Echo Volunteer Fire Department	7
Hillandale Volunteer Fire Department	19
Hyattstown Volunteer Fire Department	18
Kensington Volunteer Fire Department	81
Laytonsville District Volunteer Fire Department	42
Rockville Volunteer Fire Department	114
Sandy Spring Volunteer Fire Department	66
Silver Spring Volunteer Fire Department	24
Takoma Park Volunteer Fire Department	20
Upper Montgomery County Volunteer Fire Dept.	27
Wheaton Volunteer Rescue Squad	85
Total Active Volunteers	**874**

Source: MCFRS

---

[3] "Active" status as determined through the Length of Service Award Program (LOSAP) point system.

4. Incident and Response Time Data

MCFRS maintains two data that contain key information on MCFRS Field Operations workload demand and operational objectives. This section presents data on:

1. Number and type of MCFRS incident responses
2. MCFRS actual and target response times.

<u>Number and Type of Incident Responses</u>: MCFRS responded to over 100,000 incidents in FY06. As illustrated in Exhibit 6-1, 71 percent MCFRS responses during FY06 involved an emergency medical incident. In each of the past six years, emergency medical service responses comprised over two-thirds of all MCFRS incident responses (see Table 6-6).

Exhibit 6-1: Distribution of MCFRS Responses by Incident Type, FY06
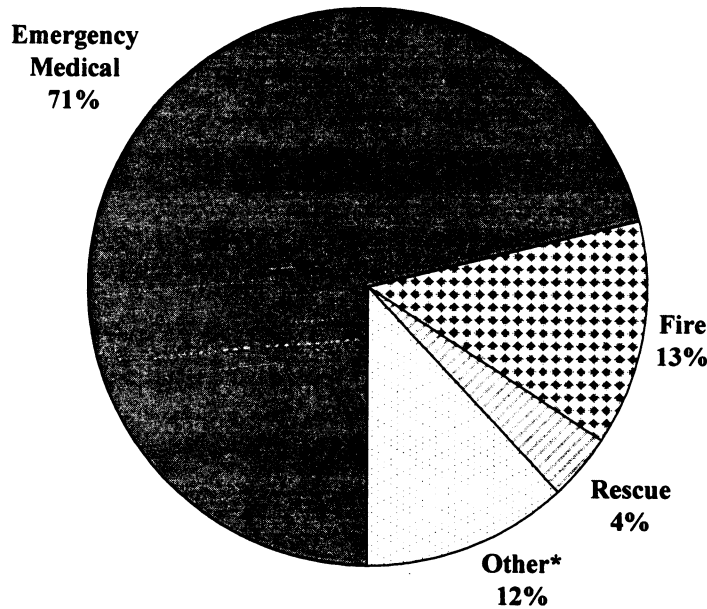
Total = 100,804 incidents
* Other includes hazardous materials incidents, malfunctioning/false alarm responses, and service calls.
Source: MCFRS

There are two categories of emergency medical response. A Basic Life Support (BLS) response involves non-life threatening calls such as non-serious automobile accidents, minor injuries or illness, and uncomplicated childbirth. An Advanced Life Support (ALS) response involves life-threatening incidents such as trauma and cardiac arrest. In FY06, BLS calls comprised 58 percent of all emergency medical responses while ALS calls comprised 42 percent of the emergency medical responses.

About 17 percent of MCFRS calls in FY06 were for fire or rescue incidents. Most fire calls involved non-structural fires. Structure fires accounted for about one percent of total MCFRS responses in FY06. Table 6-6 shows the number of MCFRS responses by incident type for FY01 through FY06.

Table 6-6: MCFRS Responses by Incident Type, FY01-06

Incident Type	FY01	FY02	FY03	FY04	FY05	FY06
Emergency Medical						
Advanced Life Support	23,482	25,116	25,573	31,412	30,110	30,248
Basic Life Support	41,523	42,225	43,461	40,846	41,203	41,651
Subtotal	65,005	67,341	69,034	72,258	71,313	71,899
Fire						
Structure Fires	1,132	1,142	1,066	1,002	931	940
Other Fires	14,113	15,367	14,329	12,586	10,937	12,055
Subtotal	15,245	16,509	15,395	13,588	11,868	12,995
Rescue	3,719	4,371	4,583	3,939	3,898	4,017
Other Incidents						
Hazardous Materials	55	102	56	30	43	28
False/Malfunctioning Alarms	8,753	8,688	8,310	8,922	8,249	8,234
Service Calls*	3,898	3,899	4,062	2,148	3,131	3,631
Subtotal	12,706	12,689	12,428	11,100	11,423	11,893
Total – All Incidents	**96,675**	**100,910**	**101,440**	**100,885**	**98,502**	**100,804**

* Service calls include lock outs, non-emergency medical care, and fuel spills.
Source: MCFRS

As detailed in Chapter II, the County has entered into mutual aid agreements with the Federal Government and with several neighboring local jurisdictions. In FY06, MCFRS assisted in 5,670 fire, rescue, and emergency medical incidents occurring on Federal installations or outside the County. These 5,670 incidents are included in the 100,804 total FY06 incidents shown in Table 6-6.

Table 6-7 shows the number of times MCFRS provided aid to other jurisdictions and the number of times the County received assistance from others jurisdictions in each year from FY01 through FY06.

Table 6-7: Number of Mutual Aid Responses Provided by MCFRS and Number of Mutual Aid Responses Received by Montgomery County, FY01-06

Type of Mutual Aid	FY01	FY02	FY03	FY04	FY05	FY06
Provided by MCFRS	4,591	4,977	4,962	5,837	5,638	5,670
Received by the County	3,145	3,184	3,332	4,326	3,864	4,136

Source: MCFRS

<u>Frequency of Incidents by Time of Day, Day of Week, and Month of Year</u>: OLO examined FY06 MCFRS incident data to determine patterns in the distribution of incidents by time of day, day of week, and month of year. OLO found that time of day is an important indicator of MCFRS workload. MCFRS workload does not vary significantly by day of week or by month of year.

In FY06, approximately 74 percent of all MCFRS responses occurred during the 12-hour period extending from 9:00 am to 9:00 pm. The peak periods of activity were identical across all incident types: ALS, BLS, structure fires, and other fires.

In FY06, there was no significant variation by day of week in the frequency of MCFRS responses. The largest number of incidents occurred on Fridays (16 percent of total incident) while the fewest number of incidents occurred on Sundays (13 percent). Incident frequency by day of the week was similar for ALS, BLS, structure fires, and other fire incidents.

OLO also found no significant variation in the number of incidents by month. MCFRS responded to the greatest number of incident occurred in July (9 percent of total incidents) and the fewest number in March (8 percent). Incident frequency by month of year was similar for ALS, BLS, structure fire and other fire incidents.

<u>Response Time</u>: MCFRS regards its response time as one of its most important performance measures. Response time is the amount of time that elapses between MCFRS receipt of an emergency 911 call and the arrival of MCFRS personnel at the incident scene. The *Fire, Rescue, and Emergency Medical Services, and Community Risk Reduction Master Plan* establishes response time goals for different types of incidents. Table 6-8 shows the response time goals for the first arriving ALS, BLS, or fire suppression unit. A more detailed table of the Master Plan response time goals appears in Appendix E.

Table 6-8: *Master Plan* Response Time Goals

Incident Type	Response Time Goal
Advanced Life Support	8 minutes
Basic Life Support	6 minutes
Structure Fire	6 minutes

Fire, Rescue and Emergency Medical Services, and Community Risk Reduction Master Plan, Page 5-54

MCFRS records the actual response time for every incident response.[4] As shown in Table 6-9, the average response time for incidents did not met the response time goal for each month of FY06.

---

[4] The response time measure begins when the fire/rescue operator receives the call. The average response time is based on the time from the 911 call to the arrival of County units at the incident scene.

Table 6-9: Average Response Times by Month, FY06

Incident Type	2005						2006					
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Advanced Life Support	9:52	10:00	9:45	10:06	10:09	10:08	9:57	9:55	10:00	10:03	10:13	10:11
Basic Life Support	10:32	10:25	10:41	10:42	10:54	11:07	10:29	10:34	10:38	10:50	10:59	10:58
Structure Fire	13:57	12:08	15:13	13:14	15:23	15:58	14:42	16:14	18:06	14:15	15:08	15:35

Source: MCFRS

The Master Plan also sets goals for the percent of responses that meet the response time goals. The Master Plan establishes different response time achievement goals for urban, suburban, and rural service areas of the County. Table 6-10 shows the response time achievement goals for urban, suburban, and rural service areas.

Table 6-10 also shows the actual percentage of responses that met the performance targets by service area of the County during FY01 through FY05. Data from FY01 through FY05 indicate that actual MCFRS response times have fallen below the *Master Plan* performance targets for most incident types and service areas.

Table 6-10: *Master Plan* Response Time Performance Targets and Percentage of MCFRS Responses within Response Time Goals, FY01-06

Incident Type	Service Area	Response Time Goal Performance Targets	Percent of Time Actual Response within Response Time Goal					
			FY01	FY02	FY03	FY04	FY05	FY06
Advanced Life Support (% < 8 min.)	Urban	90%	80%	96%	85%	71%	69%	70%
	Suburban	80%	70%	89%	77%	59%	61%	58%
	Rural	45%	47%	85%	65%	54%	56%	39%
Basic Life Support (% < 6 min.)	Urban	90%	62%	72%	75%	59%	66%	61%
	Suburban	75%	46%	52%	63%	44%	48%	49%
	Rural	50%	24%	35%	48%	35%	38%	27%
Structure Fire (% < 6 min.)	Urban	90%	62%	94%	70%	62%	71%	60%
	Suburban	75%	36%	83%	44%	36%	44%	41%
	Rural	50%	N/A	88%	39%	28%	31%	22%

Source: MCFRS and *Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan*, Page 5-54

5. Station Apparatus

Field Operations personnel travel to incidents in a variety of apparatus. The principal apparatus used in most fire, rescue, and emergency medical responses include:

- <u>Ambulances</u> transport basic life support patients to receive in-hospital medical care.

- <u>Medic Units</u> transport advanced life support patients to receive in-hospital medical care.

- <u>Heavy Rescue Squads</u> transport personnel and equipment to rescue structure occupants, shut off utilities, and provide lighting.

- <u>Rescue Engines/Rescue Trucks</u> provide passenger vehicle extrication capability.

- <u>Engines</u> provide water-carrying, fire suppression, basic life support, and basic rescue capabilities.

- <u>Ladder/Aerial Trucks</u> work in tandem with an engine to suppress structure fires by providing ladder support, forcible entry, rescue, and ventilation.

- <u>Tankers</u> provide large quantities of water to support fire suppression operations in areas lacking hydrants. Engine-Tankers are engines equipped with a high capacity water tank for fire suppression or for water shuttle operations.

- <u>Brush Units</u> have off-road capability and are designed for fighting fires involving brush, woods, grassland, and cropland.

- <u>Command Vehicles</u> are assigned to career and volunteer command officers for emergency response and administrative purposes.

MCFRS designates each piece of apparatus into one of three categories: front line units, ready reserve units, and standby units.

- <u>Front Line</u> units are the primary emergency response apparatus based at fire and rescue stations and available for immediate use.

- <u>Ready Reserve</u> apparatus are reserved to temporarily replace front line units that have mechanical or safety-related problems. Ready reserve unit are similarly equipped as front line units and maintained for immediate activation to front line status.

- <u>Standby Reserve</u> units are not equipped for immediate replacement of front line apparatus but with sufficient lead time may be prepared to replace front line or ready reserve units that are out of service for extended periods of time. In order to put a standby apparatus in service, equipment is needed from an out-of-service apparatus.

Table 6-11 shows the number of primary apparatus available or in reserve for the 34 MCFRS fire and rescue stations. A complete listing of MCFRS apparatus and other vehicles appears in Appendix F.

Table 6-11: Primary MCFRS Station Apparatus, November 2006

Apparatus Type	Front Line	Ready Reserve	Standby Reserve
Ambulances	24	9	19
Medic Units	17	0	0
Heavy Rescue Squads/Rescue Engine	9	3	2
Engines	32	6	20
Ladder/Aerial Trucks	15	0	5
Tankers/Engine-Tankers	8	0	0
Brush Units	14	2	0
Command Vehicles	60	0	0
Total	**188**	**20**	**46**

Source: MCFRS

6. Apparatus Staffing Levels

In November 1990, the County Council approved Executive Regulation 14-90 (COMCOR 21.02.08). This regulation establishes minimum and desired staffing levels for fire and rescue apparatus. The stated purpose of this policy is "...to ensure the safety of fire and rescue personnel and the efficient delivery of fire, rescue, and emergency medical services on all emergency incidents." Under this regulation, both career and volunteer personnel with appropriate training count toward the minimum and desired staffing levels. Table 6-12 shows the minimum and desired apparatus staffing levels specified in Regulation 14-90.

Table 6-12: Executive Regulation 14-90
Minimum and Desired Apparatus Staffing Levels

Apparatus Type	Minimum Staffing Level	Desired Staffing Level
Engine	3 personnel	4 personnel
Ladder Truck	3 personnel	4 personnel
Rescue Squad	3 personnel	4 personnel
Extrication Unit	3 personnel	4 personnel
Brush Truck	1 personnel	2 personnel
Mobile Intensive Care Unit	3 personnel	3 personnel
Ambulance	2 personnel	3 personnel

In October 2005, the County Council approved the Fire, Rescue, Emergency Medical Service and Community Risk Reduction Master Plan. As discussed in Chapter II of this report, the Master Plan serves as a guideline for the Executive, Council, and Fire Chief in making decisions regarding delivery of fire and rescue services but does not have the force of law and does not impose any legal obligation on any party.

The Master Plan includes the following recommendation:

> *"The County must increase mandatory minimum staffing to four personnel for engines, aerial units, and rescue squads. Concurrently, the MCFRS must do everything within its capability to staff all engines, aerial units, and rescue squads with at least four personnel per unit. This can be accomplished through continuous efforts to recruit and retain volunteers, ensuring volunteer standbys during evenings and weekends, and influencing elected officials to fund increased career staffing levels in accordance with staffing levels determined by the Fire Chief and provisions set forth in NFPA Standard 1710. Without 4-person staffing on engines, aerial units, and rescue squads, the safety of firefighter-rescuers is compromised and their effectiveness in suppressing fires and rescuing trapped or injured persons is also compromised."* (p. 5-32)

The Master Plan recommends phasing in four-person staffing of engines, aerial units, and rescue squads over a seven-year period. The Master Plan further recommends that the County provide four-person staffing for each engine, aerial unit, and rescue squad at newly opened stations. The Executive requested FY07 funding for 36 career personnel to begin implementation of the first phase of four-person staffing. The Council approved this request. The Department estimates that full implementation of four-person staffing will require hiring an additional 200 new career firefighter/rescuers over the next six years.

C. Other Major Operations Division Responsibilities

This section describes the major responsibilities of the Operations Division performed by the:

- Emergency Medical Services Section;
- Special Operations Section;
- Emergency Communications Center; and
- Apparatus Management Section.

1. Emergency Medical Services Section

The Emergency Medical Services (EMS) Section coordinates and oversees the provision of emergency medical services in the County. Staff in this Section perform their duties in association with the MCFRS Medical Director.

The EMS Section provides direct supervision of ALS and BLS care in the County. The Section also oversees BLS, ALS, and pre-hospital emergency medical services in the County. The EMS Section:

- Administers EMS training, quality assurance and certification programs in cooperation with the Wellness, Safety and Training Division;
- Conducts EMS provider evaluation and quality assurance programs;
- Coordinates EMS data collection; and
- Oversees EMS communications procedures and systems.

2. Special Operations Section

The Special Operations Section consists of seven teams with specialized skill sets and proficiencies. With the exception of the Assistant Chief for Special Operations, MCFRS does not maintain dedicated staff for the Special Operations teams. Rather, all team members serve as firefighters and emergency medical service providers in the Field Operations Division. Team members receive specialized training in their area of expertise and assemble together as needed to respond to incidents and to participate in emergency planning.

- The Hazardous Incident Response Team (HIRT) responds to incidents involving toxic, corrosive, explosive, and reactive materials. HIRT members receive training in areas such as hazardous material handling and safety, chemical agent detection, chemical/biological decontamination, explosive recognition, and managing the consequences of a weapons of mass destruction incident. In addition to its emergency response and training activities, HIRT inspects businesses to verify compliance with hazardous material management requirement of the Federal Superfund Amendments and Reauthorization Act. HIRT members are stationed at Station 7 in Chevy Chase, Station 25 in Aspen Hill, Station 28 in Derwood, and Station 20 in Bethesda. In FY06, HIRT responded to 117 incidents.

- The County's <u>Urban Search and Rescue</u> (US&R) Task Force is a group of firefighters, paramedics, and volunteer civilian specialists who train and respond to specialized rescue situations. The US&R Task Force responds to emergencies involving trench collapse, structure and building failures, confined space incidents, urban victim search, and other incidents in which their specialized equipment or expertise may be needed. The County's US&R Task Force serves as one of 28 task forces designated by the Federal Emergency Management Administration (FEMA) to conduct to emergency search and operations as needed throughout the United States.

    The US&R Task Force maintains a collapsed building and confined space training facility located at the Public Safety Training Academy. The US&R Task Force maintains is located at Station 31 in Rockville. In FY06, the County's US&R Task Force responded to 67 in-County and three out-of-County incidents.

- The MCFRS <u>Swift Water Rescue Team</u> is responsible for water rescue in the Potomac River and throughout the County during flash floods and heavy rains. The Team includes members trained to perform underwater search, rescue, and recovery. The Swift Water Rescue Team responded to 91 incidents in FY06.

- The MCFRS <u>Rail Group</u> responds to emergency heavy and passenger rail incidents. The Rail Group responded to seven incidents in FY06.

- The <u>Emergency Operations Center (EOC) Plans Group</u> conducts fire, rescue, and emergency medical disaster planning in case of an event that warrants activation of the County's Emergency Operations Center.

- The <u>National Medical Response Team (NMRT) Group</u> coordinates the County's participation in regional and national medical emergency response planning for major disasters including those involving hazardous materials and weapons of mass destruction.

- The <u>National Capital Region (NCR) Radio Cache Group</u> is responsible for the administration and maintenance of a supply of 500 portable radios for use by public safety agencies in the Washington D.C. region in the event of a failure in the emergency communications infrastructure. This group also manages the portable radio training program.

Table 6-13 shows the number of uniform and civilian members on each Special Operations Team.

Table 6-13: Special Operations Team Members, FY07

Team	Number of Trained Members	
	Uniform	Civilian
Hazardous Incident Response Team	93	0
Urban Search and Rescue Task Force	158	31
Swift Water Rescue Team	68	0
Rail Group	4	0
Emergency Operations Center Plans Group	7	0
National Medical Response Team Group	18	2
National Capital Region Radio Cache Group	8	0

3. Emergency Communications Center

The MCFRS Emergency Communications Center (ECC) is one component of the County's Public Safety Communications Center (PSCC). The ECC handles all fire, rescue, and emergency medical requests for assistance received via the County's 911-system. The MCFRS personnel complement includes 52 uniformed and seven civilian positions to staff the ECC 24 hours a day, 365 days a year.

Montgomery County Police call takers receive a majority of the 911 calls and transfers all fire, rescue, and medical requests to MCFRS. Uniformed MCFRS dispatchers accept and process all rollover calls into the center that exceed police capacity. Uniformed MCFRS dispatchers enter information into the computer-aided dispatch (CAD) system. CAD is an emergency incident response system that accepts caller information, assists the dispatcher in determining the resources needed to respond to the call, alerts firehouse personnel of the incident, and tracks the status of fire and rescue resources throughout the County.

For medical calls, MCFRS dispatchers use the County's Emergency Medical Dispatch (EMD) system to provide callers with medical attention from the initiation of the call until the arrival of emergency medical service providers. The EMD system presents standardized questions to assist the dispatcher, in determining the medical resources needed.

4. Apparatus Management Section

The Apparatus Section procures, inspects, maintains, and repairs the MCFRS fleet of over 300 vehicles. The Section provides centralized functions for MCFRS and the LFRDs including:

- <u>Maintenance</u>: The Apparatus Management Section has developed and implemented preventative maintenance programs designed to increase vehicle reliability and decrease breakdowns. LFRD personnel and vendors perform preventative maintenance and prepare daily, weekly, and monthly vehicle condition and defect reports. MCFRS staff review these data to identify repair trends and to plan future maintenance.

- <u>Inventory and Records Management</u>: MCFRS operates an apparatus records management system that maintains an inventory of all fire and rescue apparatus based at MCFRS and LFRD facilities. The system keeps records on apparatus age, condition, and maintenance history.

- <u>Purchasing</u>: In collaboration with the LFRDs, the Apparatus Management Section works to arrange competitive purchasing of commonly used parts and supplies. The Section Chief participates in the Apparatus Specifications Committee which sets specifications on new and refurbished apparatus. Section staff oversee the solicitation of contracts for the procurement of new apparatus.

- <u>Equipment Standardization</u>: This Section fits apparatus with newly purchased equipment. Centralization of this function promotes standardization of the layout of equipment on all apparatus.

Table 6-14 shows the number and type of front line, ready reserve, and standby reserve vehicles used by MCFRS and overseen by the Apparatus Management Section. A list of the vehicle inventory by LFRD appears in Appendix F.

Table 6-14: Types of Vehicles Utilized by MCFRS, November 2006

Apparatus	Unit Type	Front Line	Ready Reserve	Standby Reserve-
Aerial Tower	Aerial	6	0	2
Air Cascade unit	---	3	0	0
All-Terrain Vehicles (ATV)	---	5	0	0
Ambulance	EMS	24	9	19
Bikes	Light	4	0	0
Bomb Squad	Specialty	1	0	0
Brush unit	---	13	2	0
Canteen	---	5	0	0
Collapse Rescue Team (CRT) and Urban Search and Rescue (US&R)	Specialty	10	0	0
Command and Communications Bus	---	1	0	0
Command vehicles	Light	60	0	0
Decontamination	Specialty	2	0	0
EMS Carts	---	1	0	0
Engine	Engine	32	6	20
Engine-tanker	Engine	2	0	0
Firefighter Rehabilitation	---	0	0	0
Hazmat (HIRT)	Specialty	3	0	0
Heavy Rescue Squad	Rescue	7	2	2
Ladder Truck	Aerial	9	0	3
Mass Casualty	Specialty	2	0	0
Medic unit	EMS	17	0	0
Rescue Boat (RRATS)	Specialty	11	0	0
Rescue Engine	Rescue	3	1	0
Tanker	Engine	6	0	0
Utility	Light	73	0	0
Total	**—**	**300**	**20**	**46**

Source: MCFRS

CHAPTER VII: VOLUNTEER SERVICES DIVISION

Chapter 21 of the County Code establishes the non-merit position of Chief of the Division of Volunteer Services. The Chief of the Division of Volunteer Services serves under the Fire Chief as the highest ranking volunteer officer in the County. By law, the Chief of the Division of Volunteer Services is responsible for coordinating the operations and administration of volunteer personnel and LFRDs. The County Code grants the Chief of the Division of Volunteer Services "… operational authority over fire, rescue, and emergency medical services activities of the Fire and Rescue Service, including the local fire and rescue departments, as assigned by the Fire Chief."

Additional details regarding the responsibilities of the Chief of the Division of Volunteer Services enumerated in the County Code appear in Chapter II.

A. Budget and Staffing Overview

As shown in Table 7-1, the approved FY07 operating budget for the Volunteer Services Division is about $2.4 million or about two percent of the total Montgomery County Fire and Rescue Service (MCFRS) operating budget. Operating expenses comprise 85 percent of the Division's operating budget.

Table 7-1: MCFRS Volunteer Services
Approved FY07 Personnel Costs and Operating Expenses

Expenditure Category	Amount ($1,000s)
Personnel Costs	$364
Operating Expenses	$2,067
Total Operating Costs	$2,431

Source: MCFRS

The Volunteer Services Division has an approved FY07 personnel complement of one uniform and 4 civilian positions. Positions in this Division represent less than one percent of the total MCFRS career workforce.

Table 7-2: MCFRS Volunteer Services
Career Uniform and Civilian Positions, January 2007

Uniform		Civilian	
Position	Number	Position	Number
Division Chief	1	Program Manager I/II	1
Total	1	Planning Manager	1
		Administrative Specialist I/II/III	1
		Office Services Coordinator	1
		Total	4

Source: MCFRS

B. Major Division Responsibilities

The major responsibilities of the Volunteer Services Division include the following activities:

- Representing volunteers;
- Volunteer recruitment and retention;
- Tracking volunteer service hours;
- Volunteer benefits programs;
- Volunteer training and risk management support;
- Mobile Volunteer Personnel Corps; and
- LFRD budget support and grant assistance.

Representing Volunteers: The Volunteer Services Division promotes the interests of volunteers and the LFRDs in MCFRS management decision-making. The Division Chief meets regularly with LFRD representatives to assess needs of their volunteers and the plans of each of the 19 companies. The Division works to align MCFRS policies and plans with LFRD objectives regarding:

- Business planning;
- Facility development and maintenance;
- Staffing;
- Volunteer training; and
- Selection of equipment and apparatus.

As explicitly stated in the County Code, the Division Chief is responsible for promoting "…the integration of the activities of volunteer and career firefighters and rescuers." The County Code also directs the Division Chief to "…monitor legislative and regulatory actions involving volunteer activities and inform affected groups."[1]

Volunteer Recruitment and Retention: As directed by the County Code, the Volunteer Services Division Chief is responsible for promoting the recruitment and retention of volunteer firefighters and emergency medical service providers. The Division works with the Community Risk Reduction Services Division to develop programs to recruit volunteers to the County's volunteer fire corporations. MCFRS employs a variety of outreach strategies to recruit volunteers including mass mailings, advertising campaigns, trade fairs, and developing community partnerships.

Tracking Volunteer Service Hours: The Division recently teamed with the County's Department of Technology Services to develop an automated system to track the actual hours served and activities performed by MCFRS volunteers. Comprehensive data of this sort does not currently exist. Accurate data on volunteer service levels will assist the County in direct negotiations with MCVFRA and in the management of the Length of Service Awards Program.

---

[1] Montgomery County Code: Chapter 21-3 (d).

Volunteer Benefits Programs: The Volunteer Services Division administers the County's Length of Service Awards Program (LOSAP). LOSAP is established in the Chapter 21 of the County Code and provides volunteer firefighters and rescuers with financial awards upon completion of their service. The County Code establishes a formula for LOSAP benefits based on age and years of active service. LOSAP also provides volunteers with disability, survivor, and death benefits. The Division drafts LOSAP regulations and oversees LOSAP records management and awards payments for approximately 900 eligible volunteers.

The Volunteer Services Division also participates in the LFRD direct negotiation process with the Montgomery County Volunteer Fire and Rescue Association (MCVFRA). As detailed in Chapter II of this report, the direct negotiation process requires the Fire Chief to consult with an LFRD representative on a variety of matters including volunteer recognition and benefits.

Volunteer Training and Risk Management Support: As required by the County Code, the Volunteer Services Division Chief assists LFRDs with "training, risk management, and use and maintenance of apparatus."

The Volunteer Services Division works to enhance the training opportunities for volunteers. Working with the Wellness, Safety, and Training Division, the Volunteer Services Division developed distance learning programs for volunteers. The Division also assisted in the development of a professional development program for volunteer command officers.

Volunteer Services also provides health, safety, and apparatus maintenance assistance to volunteers and LFRDs. The Division schedules and manages hundreds of volunteer physicals each year. The Division developed a protective equipment cleaning program to protect volunteers from the potential negative health effects from wearing contaminated protective equipment.

Mobile Volunteer Personnel Corps: As required by the County Code, the Volunteer Services Division will create and will manage the MCFRS Mobile Volunteer Personnel Corps (MVPC). The Division of Volunteer Services will assign MVPC volunteers to LFRDs or MCFRS divisions as needed to meet changing staffing priorities. MVPC members serve both emergency and non-emergency functions serving as firefighters, emergency medical technicians, instructors, communications technicians, and child care providers.

LFRD Budget Support and Grant Assistance: The Volunteer Services Division assists LFRDs prepare budget and reimbursement requests. The Division also assists LFRDs prepare applications for State and Federal grants.

CHAPTER VIII: ADMINISTRATIVE SERVICES DIVISION

The Administrative Services Division provides information technology, human resource, budgeting, fiscal, procurement, technology, capital and facilities management, insurance, and other central administrative and management services for the Montgomery County Fire and Rescue Service (MCFRS).

A. Budget and Staffing Overview

As shown in Table 8-1, the approved FY07 operating budget for the Administrative Services Division is $8.5 million or about five percent of the total MCFRS operating budget. Personnel costs comprise 53 percent of the Division's operating budget.

**Table 8-1: MCFRS Administrative Services Division
Approved FY07 Personnel Costs and Operating Expenses**

Expenditure Category	Amount ($1,000s)
Personnel Costs	$4,509
Operating Expenses	$3,987
Total Operating Costs	$8,496

Source: MCFRS

The Administrative Services Division has an approved FY07 personnel complement of four uniform and 29 civilian positions. Positions in this Division represent about three percent of the total MCFRS career workforce.

**Table 8-2: MCFRS Administrative Services Division
Career Uniform and Civilian Positions, January 2007**

Uniform		Civilian	
Position	**Number**	**Position**	**Number**
Firefighter/Rescuer	1	Manager I/II/III	6
Battalion Chief	1	Program Manager I/II	2
Assistant Chief	1	Administrative Specialist I/II/III	4
Division Chief	1	Management and Budget Specialist	1
Total	**4**	Info Tech Specialist I/II/III	7
		Executive Administrative Aide	1
		Fiscal Assistant	2
		Office Services Coordinator	3
		Supply Technician	2
		Messenger Clerk	1
		Total	**29**

Source: MCFRS

B. Major Division Responsibilities

The major responsibilities of the Administrative Services Division are performed by six sections:

- Information Technology Section;
- Logistics Section;
- Procurement Section;
- Human Resources Section;
- Capital Projects, Facilities and Insurance Section; and
- Budget and Grant Administration Section.

Information Technology: The Information Technology Section of the Administrative Services Division develops and implements technology support for MCFRS. This Section maintains desktop computers, radios, telecommunications, and inventory control software. Staff also support the MCFRS portion of the County's Computer Aided Dispatch (CAD) system, the Emergency Communication Center work-order processing system that evaluates the incident information and determines the appropriate personnel and apparatus to respond.

The Information Technology Section also manages MCFRS Records Management Systems (RMS) and the data warehouse. The RMS systems records and reports incident data including:

- Dispatch time;
- Travel time;
- On-scene time;
- Actions taken at the scene;
- Property damages and/or casualties;
- Personnel involved; and
- Call type.

Logistics: The Logistics Section of the Administrative Services Division maintains the availability of uniforms, protective clothing, and supplies used by MCFRS personnel. This Section's duties include:

- Ordering new uniforms and equipment;
- Repairing existing uniforms and equipment;
- Storing, inventorying, and distributing uniforms and equipment;
- Cleaning protective clothing; and
- Operating and controlling inventory at a warehouse for the storage of spare parts, portable equipment, tools, and supplies used on MCFRS apparatus.

Procurement: The Administrative Services Division manages the MCFRS portion of the procurement process. In conjunction with the County Office of Procurement, MCFRS staff manages the solicitation, award, and payment of contracts for goods and services.

Specifically, the Procurement Section:

- Prepares requests for proposals and other contract solicitations;
- Monitors implementation of contracts;
- Manages MCFRS participation in the County's purchasing card program;
- Processes payments and travel requests; and
- Oversees MCFRS compliance with County procurement regulations.

Human Resources: The Human Resources Section of the Administrative Services Division is responsible for personnel management functions within MCFRS. In conjunction with the County Office of Human Resources, staff in this Section manage hiring, transfer, and termination processes for MCFRS. Additional duties of the Human Resources Section include:

- Administration of employment rules and regulations (code of conduct);
- Management the MCFRS disciplinary process (in coordination with the Office of Human Resources and the Office of the County Attorney);
- Oversight of the MCFRS grievance process;
- Administration of collective bargaining agreement and direct negotiation agreements;
- Execution of MCFRS promotional process including administration of promotional examinations; and
- Staff support for career and volunteer labor negotiations.

Capital Projects, Facilities, and Insurance Section: The Capital Projects, Facilities, and Insurance Section of the Division of Administrative Services manages several activities related to the management of MCFRS facilities. This Section manages facility acquisition, construction, and renovation of the MCFRS Capital Improvements Plan (CIP). This Section administers the MCFRS commercial insurance program and manages the disbursement of facility improvement awards to LFRDs.

Budget and Grant Administration Section: The Division's Budget and Grant Administration Section manages the preparation of the MCFRS operating budget. Section staff provide advice and guidance to other MCFRS divisions on budget preparation, financial analysis, and auditing. This Section also is responsible for the transfer of funds to LFRDs for items such as fuel, maintenance, and utilities.

The Budget and Grant Administration Section administers Federal and State grant funding. In FY06, MCFRS administered 18 Federal grant awards and two State grant awards including several homeland security and urban search and rescue grants.

CHAPTER IX: WELLNESS, SAFETY, AND TRAINING DIVISION

The Montgomery County Fire and Rescue Service (MCFRS) Wellness, Safety, and Training Division is responsible for developing and implementing health, safety, and training programs for County career and volunteer firefighters and emergency medical service providers.

A. Budget and Staffing Overview

As shown in Table 9-1, the approved FY07 operating budget for the Wellness, Safety, and Training Division is $16.8 million or about ten percent of the total MCFRS operating budget. Operating expenses comprise 56 percent of the Division's operating budget.

Table 9-1: MCFRS Wellness, Safety, and Training Division
Approved FY07 Personnel Costs and Operating Expenses

Expenditure Category	Amount ($1,000s)
Personnel Costs	$7,372
Operating Expenses	$9,458
Total Operating Costs	$16,830

Source: MCFRS

The Wellness, Safety, and Training Division has an approved FY07 personnel complement of 18 uniform and 11 civilian positions. Positions in this Division represent about two percent of the total MCFRS career workforce.

Table 9-2: MCFRS Wellness, Safety, and Training Division
Career Uniform and Civilian Positions, January 2007

Uniform		Civilian	
Position	Number	Position	Number
Master Firefighter	2	Office Services Coordinator	3
Lieutenant	3	Therapist	1
Captain	9	Psychologist	1
Battalion Chief	1	Exercise Psychologist	1
Division Chief	1	Emergency Services Ins.	1
Assistant Chief	2	Community Health Nurse	3
Total	18	SCBA Technician	1
		Total	11

B. Major Division Responsibilities

The major responsibilities of the Wellness, Safety, and Training Division are performed by three sections:

- Safety Section;
- Wellness Section; and
- Training Section.

Safety Section: The MCFRS Safety Section is responsible for promoting the safety, health, and welfare of career and volunteer firefighters and emergency medical service providers. The MCFRS Safety Chief supervises this Section and reports directly to the Division Chief. The Safety Section manages programs to achieve and maintain MCFRS safety standards and to reduce risks for firefighters and emergency medical service providers. Table 9-3 shows the number of medical and lost time injuries[1] by career and volunteer firefighters/rescuers from FY01 through FY06.

Table 9-3: MCFRS Career and Volunteer Firefighter/Rescuer Injuries, FY01-06

Injury Type	FY01	FY02	FY03	FY04	FY05	FY06
Medical Injuries	260	226	165	135	247	209
Lost Time Injuries	279	300	215	287	235	188
Total Injuries	**539**	**526**	**380**	**422**	**482**	**397**

Source: MCFRS

The MCFRS Safety Section develops and conducts accident prevention and safety training programs including the MCFRS Safety Officer program. One of the Safety Officers is on duty at all times, 24 hours a day, seven days a week. The responsibilities of the Safety Officers include:

- Educating firefighters and emergency medical service providers in injury prevention;
- Providing guidance regarding safety considerations of MCFRS operations and practices;
- Inspecting personal protective equipment;
- Performing station safety inspections;
- Ensuring compliance with live fire training standards;
- Serving as the on-site safety coordinator during serious incidents;
- Conducting collision and other incident investigations; and
- Monitoring the use of personnel protective equipment and self-contained breathing apparatus.

---

[1] Medical injuries are injuries that require some form of medical care but do not result in the loss of shift time. Lost time injuries require medical care and result in a loss of shift time.

Wellness Section: The MCFRS Wellness Section manages programs to address the physical and mental challenges of working as a firefighter or emergency medical service provider. The MCFRS Wellness Section provides programs to address four types of needs:

- Physical Fitness;
- Light Duty; and
- Behavioral Health.

Physical Health Care: The Fire and Rescue Occupational Medical Services (FROMS) is a component of the Wellness-Fitness Initiative jointly sponsored by MCFRS and the IAFF. FROMS physical health care programs provide:

- Entrance physicals for career and volunteer personnel;
- Annual physicals to all career Montgomery County Fire and Rescue personnel;
- Medical care for work-related injuries and illness;
- Follow up care for blood-borne pathogen exposure; and
- Return to work exams for employees injured at work with lost time.

FROMS also conducts education programs to promote healthy lifestyles and screening programs for early detection of cancer and other diseases. FROMS coordinates these programs with the IAFF and local medical institutions including Adventist Health Care.

Physical Fitness: The FROMS Fitness Section assists fire and rescue service personnel perform physically demanding aspects of their jobs without injury. Uniformed career MCFRS personnel participate in an annual fitness assessment. After the assessment, a FROMS exercise specialist provides feedback regarding job-related wellness. The fitness assessment does not affect employment status. However, the results of the fitness assessment may result in an alternative job placement within MCFRS. Table 9-4 shows the number of fitness assessments completed on MCFRS personnel from FY04 through FY06.

Table 9-4: FROMS Fitness Assessments, FY04-06

	FY04	FY05	FY06	Total
Number of Fitness Assessments	565	734	584	2,059

Source: MCFRS

In addition, the FROMS Fitness Section also provides the following services:

- Training peer fitness trainers;
- Recommendations on fitness equipment specifications; and
- Review of injury statistics and providing recommendations for prevention.

Light Duty: The Wellness, Safety, and Training Division manages the MCFRS Medically Influenced Duty Status (MIDS) program. The MIDS program arranges temporary light duty assignments for personnel who are injured or ill and cannot perform essential job functions.

Light duty assignments include office work, public education, building inspection, and other functions. Division staff schedule and monitor light duty assignments, assist with fitness for duty evaluations, and conduct other return-to-work activities.

<u>Behavioral Health:</u> The MCFRS behavioral health program provides mental health support for fire and rescue personnel and their families. A staff psychologist and social worker provide clinical services, educate MCFRS personnel on behavioral health, and train the Critical Incident Stress Management (CISM) Team. The CISM Team works to minimize the emotional and mental health effects related to firefighter and emergency medical service providers' duties. The CISM Team provides voluntary stress management education and counseling for both pre-incident and post-incident situations.

Training Section: The MCFRS Training Section develops and delivers training programs for all volunteer and career fire and rescue personnel in the County. The Training Section provides courses that meet MCFRS career development requirements and comply with Maryland Institute for Emergency Medical Services System (MIEMSS) requirements, Federal Occupational Safety and Health Administration (OSHA) requirements, and National Fire Protection Association (NFPA) standards. The Section offers basic and refresher courses necessary for job proficiency and employee promotion. MCFRS offers training courses in the following instructional areas:

- Volunteer orientation;
- Entry level firefighting;
- Emergency medical technician training;
- Paramedic training;
- Career development;
- Command officer professional development and improvement; and
- Standardized field training.

Training programs take place at the Public Safety Training Academy (PSTA) and other locations. In fiscal year 2006, MCFRS offered a total of 185 classes to 5,904 students for a total of 117,400 training hours.

The Training Section administers and operates the 21-week MCFRS Recruit School for candidate firefighters and emergency medical response providers. Recruits receive firefighting, emergency medical service, hazardous materials incident response, report writing, technology, and health and fitness training. MCFRS recruits graduate with a National Firefighter I certification.

The Training Section also operates the High School Fire Science Cadet program, an alternative educational opportunity offered in conjunction with the Montgomery County Public Schools. This program annually trains 25 to 30 high school juniors and seniors to become firefighters and emergency medical service providers. Data are currently not available on the number of students who join MCFRS or continue as volunteers after graduation.

CHAPTER X: COMMUNITY RISK REDUCTION SERVICES DIVISION

The Montgomery County Fire and Rescue Service (MCFRS) Community Risk Reduction Division is responsible for assessing current and anticipated fire and emergency medical service risks and developing plans, outreach activities, mitigation processes, and law enforcement actions to protect the community.

A. Budget and Staffing Overview

As shown in Table 10-1, the approved FY07 operating budget for the Community Risk Reduction Services Division is $6.8 million or about four percent of the total MCFRS operating budget. Personnel costs comprise 90 percent of the Division's operating budget.

**Table 10-1: MCFRS Community Risk Reduction Services Division
Approved FY07 Personnel Costs and Operating Expenses**

Expenditure Category	Amount ($1,000s)
Personnel Costs	$6,134
Operating Expenses	$654
Total Operating Costs	**$6,788**

Source: MCFRS

The Community Risk Reduction Services Division has an approved FY07 personnel complement of 41 uniform and 19 civilian positions. Positions in this Division represent about five percent of the total MCFRS career workforce.

**Table 10-2: MCFRS Community Risk Reduction Services Division
Career Uniform and Civilian Positions, January 2007**

Uniform		Civilian	
Position	**Number**	**Position**	**Number**
Firefighter/Rescuer	4	Manager I/II/III	2
Master Firefighter	14	Program Manager I/II	4
Lieutenant	13	Planning Manager	1
Captain	6	Senior Permitting Specialist	1
Battalion Chief	2	Sr. Planning Specialist	1
Assistant Chief	1	Fiscal Assistant	1
Division Chief	1	Administrative Specialist I/II/III	1
Total	**41**	Info Tech Specialist I/II/III	1
		Office Services Coordinator	3
		Engineer	3
		Principal Administrative Aide	1
		Total	**19**

Source: MCFRS

B. Major Division Responsibilities

The major responsibilities of the Community Risk Reduction Services Division are performed by the following sections:

- Fire Code Enforcement Section;
- Fire and Explosives Investigations Section;
- Fire and Life Safety Education Section;
- Public Information Section;
- Recruitment Section; and
- Planning and Research Section.

Fire Code Enforcement Section: MCFRS Fire Inspectors enforce the County Fire Safety Code (Chapter 22 of the County Code) and related regulations. County Fire Inspectors also serve as deputies of the State Fire Marshal and have authority to enforce the State Fire Prevention Code. Fire Inspector code enforcement responsibilities cover both construction of new structures and compliance for existing structures.

In FY06, MCFRS estimates that Fire Inspectors performed 4,000 enforcement inspections of existing structures; 6,300 inspections of new construction; and, 10,500 inspections related to fire protection systems, permits, and licenses. Fire Inspector enforcement duties include:

- Preventive inspections;
- Fire Safety Code inspections of new construction;
- Forensic fire engineering investigations;
- Evaluation of the habitability of buildings after a structure fire;
- Safety code investigations:
- Review and certification of site and building plans; and
- Fire Code complaint inquiries.

Fire and Explosives Investigations Section: The Fire and Explosive Investigations Section investigates fire and explosive incidents that involve loss of life, serious injury, substantial property damage, or possible criminal activity. This Section also manages suspicious package incidents. MCFRS cross-trains Section personnel to perform both investigative and bomb mitigation duties.

The responsibilities of the Fire and Explosive Investigations Section include:

- <u>Origin and Cause Investigations</u>: This Section investigates the origin and cause of fire and explosive incidents. As shown in Table 10-3, MCFRS investigated almost 800 fire and explosive incidents in FY06.

Table 10-3: Fire and Explosives Incidents Investigated, FY01-06

Incident Type	FY01	FY02	FY03	FY04	FY05	FY06
Arson	160	165	157	163	189	196
Accidental Fire or Explosion	508	376	349	397	342	405
Explosive Related	155	664	341	205	173	194
Total Incidents Investigated	823	1,205	847	615	704	795

Source: MCFRS

- **Criminal Investigations**: MCFRS conduct criminal investigations of incidents involving incendiary fires or explosive devices or materials. Investigators examine the cause of a fire or explosive incident, conduct follow-up case work, process prisoners, and testify in court. State law authorizes County fire and explosive investigators with the rank of lieutenant or higher to issue criminal citations and to make arrests. Table 10-4 shows the number of arrests made as a result of MCFRS fire and explosive incident investigations.

Table 10-4: Fire and Explosive Incident Arrests, FY01-06

	FY01	FY02	FY03	FY04	FY05	FY06
Arrests	49	63	79	36	35	39

Source: MCFRS

- **Accelerant Detection**: The MCFRS Accelerant Detection K-9 unit consists of one handler and one trained dog that work to detect fire accelerant materials used by arsonists. The Federal Bureau of Alcohol, Tobacco and Firearms (ATF) provides training and recertification for the unit.

- **Bomb Squad**: The MCFRS Bomb Squad responds to incidents involving suspected incendiary fires or explosive devices or materials. The County's MCFRS Bomb Squad is accredited by the Federal Bureau of Investigation (FBI). The Bomb Squad consists of ten certified bomb technicians that respond to incidents in a bomb response vehicle equipped with a bomb disposal robot. In FY06, the Bomb Squad responded to 176 explosive-related incidents.

Life Safety and Fire Education Section: The Life Safety and Fire Education Section provides outreach and education services to improve public safety. This Section manages several programs to promote fire and injury prevention, including:

- **Safety Training Program**: MCFRS staff conduct site visits to businesses, residences, schools, and institutions to promote fire safety specific to that type of structure and use and to assist in the development of fire evacuation procedures.

- <u>Child Passenger Safety Program</u>: MCFRS promotes the proper use of child safety seats through educational programs and safety seat inspections. In FY06, public and private sector inspectors checked 8,058 safety seats.

Table 10-5: Child Safety Seats Inspected FY03-06

	FY03	FY04	FY05	FY06
Seats checked	9,289	8,995	8,470	8,058

- <u>Healthcare Workshops</u>: MCFRS sponsors workshops twice a year for employees of hospitals and nursing homes. Workshop participants receive classroom and practical instruction on hazard recognition, fire protection, evacuation procedures, patient carrying, and the use of portable fire extinguishers.

- <u>Learn to Be Safe Program</u>: MCFRS provides information about bicycle safety and the use of helmets, safe swimming, pedestrian safety, and car passenger safety.

- <u>Operation Extinguish</u>: MCFRS offers intervention and educational services for juvenile fire-setters and their families, as well as youngster involved in fireworks, pipe bombs, and false alarms. The program combines psychological counseling and fire safety education in an effort to eliminate this behavior. The program handles up to 70 youths a year through a contract administrated by Psychotheraeupetic Resources Inc. of Bethesda.

- <u>Risk Watch Program</u>: This program provides educational programs on fire safety to fourth grade students in the County schools.

- <u>Senior Citizen Fire Safety Task Force</u>: The Task Force consists of up to 25 members, who advise the Fire Chief on strategies and methods designed to reduce senior citizen fire-related deaths and injuries in the county.

- <u>Smoke Alarm Program</u>: Chapter 22 of the County Code requires installation of smoke alarms in all County residences.[1] MCFRS distributes smoke alarms and batteries to County residents. MCFRS distributed 473 smoke detectors and 692 batteries in FY06.

- <u>Safety in Our Neighborhood Program</u>: MCFRS disseminates information and conducts home safety inspections to reduce the number of unintentional fires and injuries that occur in County residences.

---

[1] Montgomery County Code: Chapter 22-96 (a).

Public Information Section: The Public Information Section is responsible for informing the community and the media about the MCFRS activities and programs. Activities of this Section include:

- Working with the news media to inform residents about MCFRS programs and services;
- Managing the content and design of the MCFRS web site;
- Producing cable television programming; and
- Providing graphical support to MCFRS.

Recruitment Section: The Recruitment Section is responsible for attracting a ready supply of diverse candidates who can be successfully employed or volunteer as firefighters or emergency medical service providers. Working with the County's Office of Human Resources, this Section conducts marketing and outreach activities to recruit candidates to apply for the entry level MCFRS positions. MCFRS runs two or three Recruit School classes per year to train entry level career firefighters. Recruit School classes have an average size of about 40 candidates.

The hiring process for career firefighter/rescuers involves several MCFRS divisions as well as the Office of Human Resources. A table outlining the hiring process and the responsibilities of different organizational units appears in Appendix G.

In conjunction with the MCFRS Volunteer Services Division, the Recruitment Section runs programs to recruit volunteers to the County's volunteer fire corporations. MCFRS employs a variety of outreach strategies to recruit volunteers including mass mailings, advertising campaigns, trade fairs, and developing community partnerships.

Planning and Research Section: The Planning and Research Section provides planning, research, analytical, and geographic information system support to MCFRS. Responsibilities of this Section include:

- Managing the review, amendment, and revision of the Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan (see Chapter II);
- Providing MCFRS input into the M-NCPPC community master planning process;
- Conducting MCFRS risk assessment, resource allocation, and station location studies;
- Representing MCFRS on interagency facility siting committees;
- Assisting in performance evaluations of MCFRS programs; and
- Assisting in the ongoing activities required to maintain MCFRS accreditation.

CHAPTER XI: FINDINGS

This chapter summarizes the findings of OLO's Phase I base budget review of the Montgomery County Fire and Rescue Service (MCFRS). The organization of OLO's findings parallels the organization of the report.

MCFRS ORGANIZATION

Finding #1: **By law, MCFRS is a department of the County Government. MCFRS is part of the County's fire and rescue system, which also includes the Fire and Rescue Commission and the 19 local fire and rescue departments.**

The Fire Chief serves as the department director of MCFRS. The County Code (Chapter 21) empowers the Fire Chief with "...full authority over all fire, rescue, and emergency medical services in the County, including any fire, rescue, and emergency medical services provided by local fire and rescue departments."

Chapter 21 of the Code also establishes the County Fire and Rescue Commission. The seven-member Commission advises the Fire Chief, the County Executive and the County Council on matters relating to fire, rescue and emergency medical services legislation, programs, procedures, and plans. The Code requires that the Commission review and approve fire and rescue service policies and regulations proposed by the Fire Chief.

Each of the 19 local fire and rescue departments (LFRDs) is an independent State-chartered corporation that operates under the authority of the MCFRS Fire Chief. The County Code authorizes LFRDs to provide direct fire suppression, rescue, or emergency medical services.

MCFRS BUDGET – REVENUES AND EXPENDITURES

Finding #2: **The MCFRS is funded primarily by Fire District Tax revenue.**

Chapter 21 of the County Code establishes the Fire District Tax as a tax based on the assessed value of taxable property in the Fire Tax District. The entire County lies in the Fire Tax District; and the Fire District Tax is part of the overall County property tax governed by the Charter limit on property tax revenue.

For FY07, the County assessed a Fire District Tax of $0.134 per $100 of assessed value and is projected to raise more than $179 million. In FY06, Fire District Tax revenues funded 96 percent of the MCFRS operating budget.

Finding #3: **The Council approved an FY07 operating budget of $178 million for MCFRS. The MCFRS budget increased 75 percent during the past five years.**

The FY07 approved operating budget continued a multi-year growth trend in MCFRS funding. From FY02 through FY07, the approved MCFRS operating budget increased by more than $76 million, a 75 percent increase.

The FY07 MCFRS approved budget funds 1,187 full-time and three part-time positions. Uniformed personnel comprise 1,081 (91%) of all MCFRS positions. Personnel costs (salaries and benefits) constitute 87 percent of the approved FY07 MCFRS operating budget. The table below shows the breakdown of the FY07 budget by division.

The total cost of benefits for MCFRS employees equals 62 percent of salary costs. This relative cost of benefits to salaries is comparable to that found in other public safety departments that have similarly expensive benefits (primarily pension), but substantially higher than the relative cost found in non-public safety departments.

MCFRS Personnel Costs and Operating Expenses by Division, FY07 ($1,000s)

Division	Personnel	Operating	Total	% Total
Fire Chief* / Fire & Rescue Commission	$1,445	$150	$1,595	1%
Operations	$131,844	$3,700	$135,544	76%
Administrative Services	$4,509	$3,987	$8,496	5%
Volunteer Services	$364	$2,067	$2,431	1%
Wellness, Safety, and Training	$7,372	$9,458	$16,830	9%
Community Risk Reduction	$6,134	$654	$6,788	4%
Salaries and Wages – LFRD Staff	$2,594	$0	$2,594	1%
Payments to LFRDs	---	$3,704	$3,704	2%
Total	**$154,260**	**$23,720**	**$177,982**	**100%**
% Total	**87%**	**13%**	**100%**	**---**

Source: MCFRS (percents do not add to 100% because of rounding)
*Including Office of Internal Affairs

Finding #4: **Over the past six years, the number of MCFRS positions increased by 17 percent while total MCFRS personnel costs increased 83 percent.**

The number of MCFRS positions and MCFRS personnel costs have both increased in recent years, but at notably different rates. A large disparity exists in the rate of increase for these two seemingly related measures.

Between FY02 and FY07, the number of MCFRS positions increased by 17 percent. Over the same period, MCFRS personnel costs grew by 83 percent. The rapid rise in MCFRS personnel costs over the past six years is due to the marked growth in MCFRS per employee compensation cost that has occurred in recent years.

Percent Increase in MCFRS New Positions and Total Personnel Costs, FY02-07
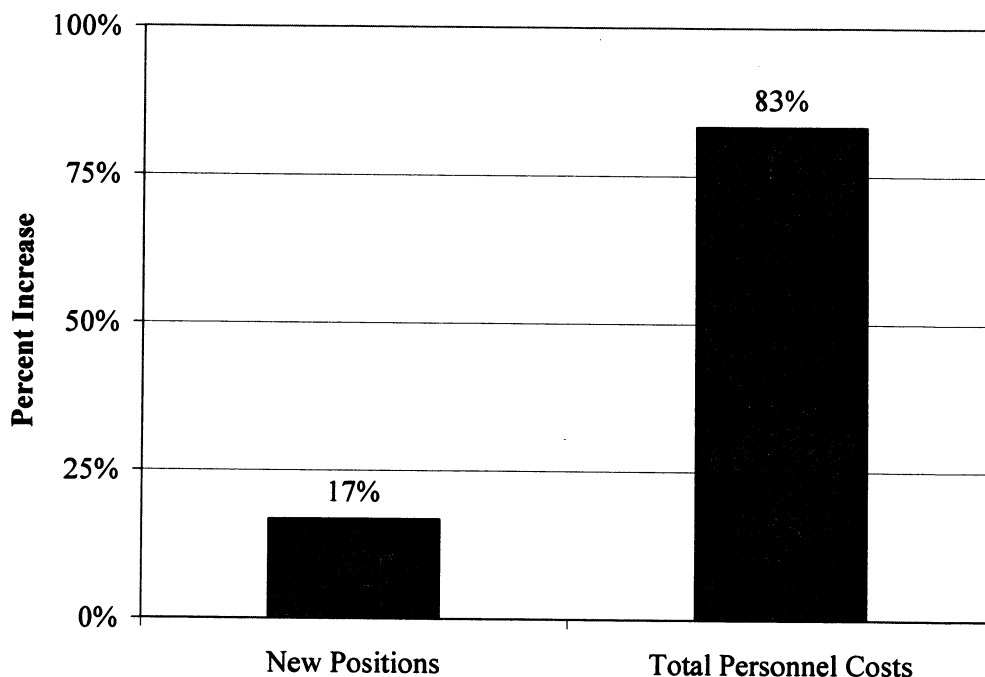
Finding #5: MCFRS' total personnel expenditures have stayed within budgeted levels. However, data for the past several years indicate that actual expenditures for some categories of MCFRS personnel costs (e.g., overtime, lapse) have differed significantly from their budgeted levels.

For each of the past six years, MCFRS has budgeted about $6 million for overtime. And for five of the past six years, actual overtime expenditures exceeded budgeted levels. In FY05 and FY06, actual overtime expenditures were more than double the budgeted amount. The Executive has not requested a supplemental appropriation to pay for unbudgeted overtime costs. It appears that the department has covered unbudgeted overtime by using salary adjustment, unbudgeted lapse, and other surplus personnel funding in the approved budget (see below).

Lapse refers to the reduction in budgeted personnel costs to account for turnover, vacancies, and delays in filling positions. MCFRS' approved FY07 budget includes about $1.8 million in lapse, which represents about 1.2 percent of total budgeted personnel costs. MCFRS reports that the Department has experienced an average of 21 to 26 vacant positions at any given time over the past three years equal to between 1.8 and 2.2 percent of total MCFRS positions.

Another example is an item in the MCFRS approved personnel complement budget labeled "salary adjustments," "pay adjustments," or "miscellaneous costs." In FY07, this category includes close to $10 million in MCFRS personnel costs MCFRS reports that about $3 million of this sum covers salary differentials paid to paramedics and other responders with advanced training and skills. According to the Department, the remainder of the "adjustments" covers unspecified personnel costs resulting from the collective bargaining process but not directly budgeted as salaries or benefits.

OPERATIONS DIVISION AND INCIDENT RESPONSE

Finding #6: **The Operations Division is responsible for the front line delivery of fire, rescue, and emergency medical services in the County. The Operations Division Chief directs all career and volunteer personnel at fire and rescue stations in the County.**

The FY07 approved budget allocates $135.5 million and 1,014 career uniform and nine civilian positions to the Operations Division. By far, the largest unit within MCFRS is the Operations Division with about 86 percent of the total MCFRS career workforce. More than three-quarters of the total MCFRS FY07 operating budget is allocated to the Operations Division.

Over 900 career firefighters, rescuers, and emergency medical service providers respond to calls from County fire and rescue stations. MCFRS reports that, on average, a career shift firefighter is available to respond to calls 1,920 hours per year while a career shift paramedic, on average, is available to respond to calls 1,640 hours per year.

Volunteers serve in the field as firefighters, rescuers, and emergency medical service providers. Field operation volunteers perform front line fire suppression, rescue, and emergency medical care activities together with career personnel. Volunteers primarily work in an operational capacity during evening and weekend hours. The department's staffing plan assumes the LFRDs fill the equivalent of 32 positions Countywide on nights and weekends. At present, MCFRS does not have actual data on the exact number of hours served by operational and administrative volunteers.

Finding #7: **The Operations Division performs supporting functions to complement front line fire, rescue, and emergency medical response activities.**

In addition to the personnel that respond to fire, rescue, and emergency medical incidents from fire and rescue stations, the Operations Division performs other related functions.

- **The Emergency Medical Services (EMS) Section** coordinates and oversees the provision of emergency medical services in the County. The EMS Section provides direct supervision of Advanced Life Support (ALS) and Basic Life Support (BLS) care and oversees ALS, BLS, and pre-hospital emergency medical services in the County.

- **The Special Operations Section** consists of seven teams with specialized skill sets and proficiencies. Team members receive specialized training in their area of expertise and assemble together as needed to respond to incidents and to participate in emergency planning. MCFRS Special Operations teams include: the Hazardous Incident Response Team, the Urban Search and Rescue Task Force, the Swift Water Rescue Team, the Rail Group, the Emergency Operations Center Plans Group, the National Medical Response Team Group, and the National Capital Region (NCR) Radio Cache Group.

- **The MCFRS Emergency Communications Center (ECC)** is one component of the County's Public Safety Communications Center. The ECC handles all fire, rescue, and emergency medical requests for assistance received via the County's 911-system.

- **The Apparatus Management Section** conducts preventative maintenance programs and maintains the inventory of the MCFRS fleet of over 300 vehicles. In collaboration with the LFRDs, Division staff arrange competitive purchasing of commonly used parts and supplies and fit apparatus with newly purchased equipment.

Finding #8: MCFRS responded to more than 100,000 incidents in FY06.

As shown in the graphic below, more than 70 percent of MCFRS responses during FY06 involved an emergency medical incident. In each of the past six years, emergency medical service responses accounted for over two-thirds of all MCFRS incident responses.

Distribution of MCFRS Responses by Incident Type, FY06
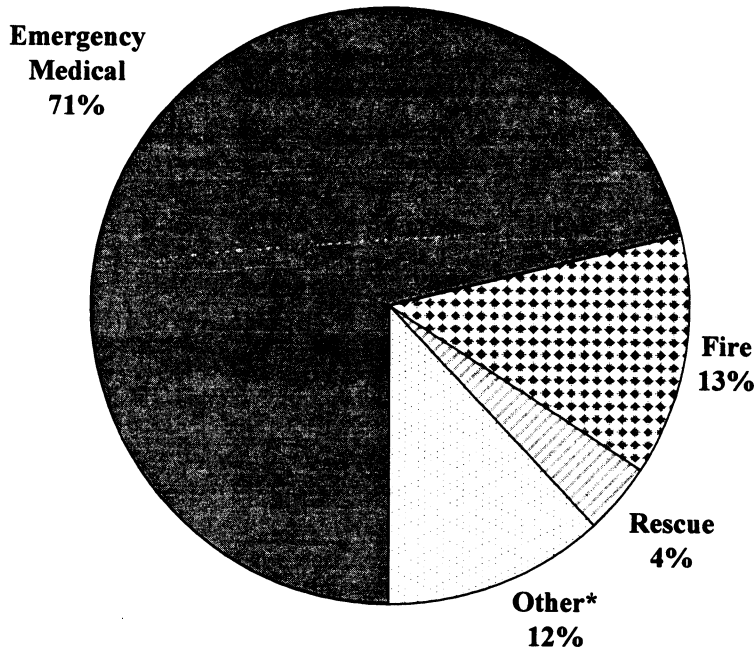
Total = 100,804 incidents
* Other includes hazardous materials incidents, malfunctioning/false alarm responses, and service calls.
Source: MCFRS

There are two categories of emergency medical response. A Basic Life Support (BLS) response involves non-life threatening calls such as non-serious automobile accidents, minor injuries or illness, and uncomplicated childbirth. An Advanced Life Support (ALS) response involves life-threatening incidents such as trauma and cardiac arrest. In FY06, BLS calls comprised 58 percent of all emergency medical responses while ALS calls comprised 42 percent of the emergency medical responses.

About 17 percent of MCFRS responses in FY06 were for fire or rescue incidents. Most fire calls involved non-structural fires. Structure fires accounted for about one percent of total MCFRS responses in FY06.

In FY06, approximately 74 percent of all MCFRS responses occurred during the 12-hour period extending from 9:00 am to 9:00 pm. The peak periods of activity were identical across all incident types: ALS, BLS, structure fires, and other fires.

Finding #9:   Actual MCFRS incident response times frequently exceed targeted goals.

The Fire, Rescue, and Emergency Medical Services, and Community Risk Reduction Master Plan establishes response time goals for different types of incidents. Response time is the amount of time that elapses between receipt of an emergency 911 call and the arrival of MCFRS personnel at the incident scene. The table below shows the most recently adopted response time goals.

MCFRS Response Time Goals

Incident Type	Response Time Goal
Advanced Life Support	8 minutes
Basic Life Support	6 minutes
Structure Fire	6 minutes

Fire, Rescue and Emergency Medical Services, and Community Risk Reduction Master Plan, **Page 5-54**

Actual response times vary by incident type and location (urban, suburban, and rural areas of the County). In FY06, MCFRS met the response time goal of eight minutes for 70 percent of the ALS calls in urban areas. In the same year, MCFRS met the response time goal of six minutes for 22 percent of rural area structure fires. The average FY06 response time for Advance Life Support and Basic Life Support incidents was about 10 minutes and the average response time for structure fires was about 15 minutes.

APPARATUS STAFFING

Finding #10: **MCFRS estimates that the County will need to hire 200 additional firefighters/rescuers to achieve its four-person apparatus staffing objective.**

The *Fire, Rescue, Emergency Medical Service and Community Risk Reduction Master Plan* (*Master Plan*) was most recently updated and approved by the Council in 2005. The *Master Plan* recommends that MCFRS increase staffing on engines, aerial units, and rescue squads from three to four uniformed personnel. The *Master Plan* recommends phasing in this four-person apparatus staffing over a seven-year period. The *Master Plan* further recommends that the County provide four-person staffing for each engine, aerial unit, and rescue squad at newly opened stations.

The Executive requested FY07 funding for 36 career personnel to begin implementation of the first phase of four-person staffing. The Council approved this request. The Department estimates that full implementation of four-person staffing will require hiring an additional 200 new career firefighter/rescuers over the next six years.

VOLUNTEER SERVICES DIVISION

Finding #11: **The Chief of the Division of Volunteer Services serves under the Fire Chief as the highest ranking volunteer officer in the County. By law, the Chief of the Division of Volunteer Services is responsible for coordinating the operations and administration of volunteer personnel and LFRDs.**

The approved FY07 operating budget for the Volunteer Services Division is $2.4 million; the approved FY07 personnel complement for the Division is one uniform and 4 civilian positions. The major responsibilities of the Volunteer Services Division include the following activities:

- **Representing Volunteers:** The Division promotes the interests of volunteers and the LFRDs in MCFRS management decision-making. The Division Chief meets regularly with LFRD representatives to assess needs of their volunteers and the plans of each of the 19 companies. As explicitly stated in the County Code, the Division Chief is responsible for promoting "...the integration of the activities of volunteer and career firefighters and rescuers."[16]

- **Volunteer Recruitment and Retention:** The Division is responsible for promoting the recruitment and retention of volunteer firefighters and emergency medical service providers. The Division works with the Community Risk Reduction Services Division to develop programs to recruit volunteers to the County's volunteer fire corporations.

- **Tracking Volunteer Service Hours:** The Division recently teamed with the County's Department of Technology Services to develop an automated system to track the actual hours served and activities performed by MCFRS volunteers.

---

[16] Montgomery County Code: Chapter 21-3 (d).

- **Volunteer Benefits Programs:** The Division administers the County's Length of Service Awards Program (LOSAP). LOSAP provides volunteer firefighters and rescuers with financial awards upon completion of their service.

- **Volunteer Training and Risk Management Support:** The Division works to enhance the training opportunities for volunteers, and provides health, safety, and apparatus maintenance assistance to the LFRDs. The Division schedules hundreds of physical exams for volunteers each year.

- **Mobile Volunteer Personnel Corps:** As required by the County Code, the Division will create and will manage the MCFRS Mobile Volunteer Personnel Corps (MVPC). The Division assigns MVPC volunteers to LFRDs or MCFRS divisions as needed to meet changing staffing priorities.

- **LFRD Budget Support and Grant Assistance:** The Division assists LFRDs prepare budget and reimbursement requests. The Division also assists LFRDs prepare applications for State and Federal grants.

ADMINISTRATIVE SERVICES DIVISION

Finding #12: **The Administrative Services Division provides central administrative and management services for MCFRS, which includes information technology, human resources, budgeting, procurement, and facilities management.**

The approved FY07 operating budget for the Administrative Services Division is $8.5 million; the approved FY07 personnel complement for the Division is four uniform and 29 civilian positions. The major responsibilities of the Division are performed by six sections:

- **The Information Technology Section** develops and implements technology support for MCFRS. This Section maintains desktops, radios, telecommunications, and inventory control software. Section staff also support the MCFRS portion of the County's Computer Aided Dispatch (CAD) system. The Information Technology Section also manages MCFRS Records Management Systems.

- **The Logistics Section** maintains the availability of uniforms, protective clothing, and supplies used by MCFRS personnel. The Section's responsibilities include ordering, storing, distributing, cleaning and repairing uniforms and equipment.

- **The Procurement Section** manages the MCFRS portion of the procurement process. In conjunction with the County Office of Procurement, MCFRS staff prepare and process the solicitation, award, and payment of contracts for goods and services.

- **The Human Resources Section** is responsible for personnel management functions within MCFRS. In conjunction with the County Office of Human Resources, staff in this section manage hiring, transfer, and termination processes for MCFRS. Staff administer employment rules and regulations, oversee the MCFRS employee grievance process and implement the IAFF collective bargaining and MCVFRA direct negotiation agreements.

- **The Capital Projects, Facilities, and Insurance Section** manages activities related to the management of MCFRS facilities. This Section manages facility acquisition, construction, and renovation of the MCFRS Capital Improvements Plan (CIP). This Section also administers MCFRS' commercial insurance program and manages the disbursement of facility improvement awards to LFRDs.

- **The Budget and Grant Administration Section** manages the preparation of the MCFRS operating budget. Section staff provide advice and guidance to other MCFRS divisions on budget preparation, financial analysis, and auditing. This Section is also responsible for the transfer of funds to LFRDs for items such as fuel, maintenance, and utilities; and the administration of Federal and State grants.

WELLNESS, SAFETY, AND TRAINING DIVISION

Finding #13: **The Wellness, Safety, and Training Division is responsible for developing and implementing health, safety, and training programs for County career and volunteer firefighters and emergency medical service providers.**

The approved FY07 operating budget for the Wellness, Safety, and Training Division is $16.8 million; the approved FY07 personnel complement for the Division is 18 uniform and 11 civilian positions.

The major responsibilities of the Wellness, Safety, and Training Division are performed by three sections:

- **The Safety Section** is responsible for promoting the safety, health, and welfare of career and volunteer firefighters and emergency medical service providers. The Safety Section manages programs to achieve and maintain MCFRS safety standards and reduce risks for firefighters and emergency medical service providers.

- **The Wellness Section** manages programs to address the physical and mental challenges of working as a firefighter or emergency medical service provider. Fire and Rescue Occupational Medical Services (FROMS) provide entrance physicals for career and volunteer personnel, annual physicals for career personnel, and medical care for work-related injuries and illness. FROMS also conducts education programs to promote healthy lifestyles and assists fire and rescue personnel perform physically demanding aspects of their jobs without injury. The Wellness Section also manages the MCFRS behavioral health program, which provides mental health support for fire and rescue personnel and their families.

- **The Training Section** develops and delivers training programs for all volunteer and career fire and rescue personnel in the County. The Section offers basic and refresher courses necessary for job proficiency and employee promotion. Training programs take place at the Public Safety Training Academy (PSTA) and other locations. In fiscal year 2006, MCFRS offered a total of 185 classes to 5,904 students for a total of 117,400 training hours. The Training Section also operates the 21-week MCFRS Recruit School for candidate firefighters and emergency medical response providers.

COMMUNITY RISK REDUCTION SERVICES DIVISION

Finding #14: **The Community Risk Reduction Division is responsible for assessing current and anticipated fire and emergency medical service risks and developing plans, outreach activities, mitigation processes, and law enforcement actions to protect the community.**

The approved FY07 operating budget for the Community Risk Reduction Division is $6.8 million; the approved FY07 personnel complement for the Division is 41 uniform and 19 civilian positions.

The major responsibilities of the Community Risk Reduction Division are performed by the following sections:

- **The Fire Code Enforcement Section** enforces the County Fire Safety Code and related regulations. County Fire Inspectors assigned to the Section serve as deputies of the State Fire Marshal and have authority to enforce the State Fire Prevention Code. In FY06, MCFRS estimates that Fire Inspectors performed 4,000 enforcement inspections of existing structures; 6,300 inspections of new construction; and 10,500 inspections related to fire protection systems, permits, and licenses.

- **The Fire and Explosives Investigations Section** investigates fire and explosive incidents that involve loss of life, serious injury, substantial property damage, or possible criminal activity. Staff in this Section investigated almost 800 fire and explosive incidents and made 36 arrests in FY06. This Section includes the MCFRS Bomb Squad that responds to incidents involving suspected incendiary fires or explosive devices or materials. In FY06, the Bomb Squad responded to 176 explosive-related incidents.

- **The Life Safety and Fire Education Section** provides outreach and education services to improve public safety. This Section manages several programs to promote fire safety in homes, hospitals, and workplaces. The Section also promotes the proper use of child safety seats, bicycle and pedestrian safety.

- **The Public Information Section** is responsible for informing the community and the media about the MCFRS activities and programs. Activities of this Section include working with the news media, managing the content and design of the MCFRS web site, and producing cable television programming.

- **The Recruitment Section** is responsible for attracting a ready supply of diverse candidates to train to be career or volunteer firefighters/rescuers. MCFRS runs two or three Recruit School classes per year to train entry level career firefighters. In conjunction with the Volunteer Services Division, the Recruitment Section runs programs to recruit volunteers to the County's volunteer fire corporations.

- **The Planning and Research Section** provides planning, research, analytical, and geographic information system support to MCFRS. Section responsibilities include master planning, conducting risk assessments, representing MCFRS on interagency facility siting committees, and assisting in the ongoing activities required to maintain MCFRS accreditation.

MCFRS Data Management

Finding #15: **Existing MCFRS data management systems are incapable of readily producing information needed either for routine internal management or periodic program evaluations.**

While conducting this study, OLO found that MCFRS' data management systems were incapable of readily producing fundamental budget and performance information. For example, all MCFRS budget and personnel complement data for FY06 and FY07 reflect the organizational structure that existed before the FY05 reorganization of MCFRS. MCFRS staff had to manually re-sort data to produce budget and personnel information that align with the current organizational structure. In addition, MCFRS is not able to readily produce program-level budget information for many activities.

MCFRS has begun to address some the Department's data shortcomings. Nonetheless, current deficiencies in MCFRS budget and personnel data management are an impediment to the development of efficiency or other performance measurements.

CHAPTER XII: RECOMMENDATIONS

The Office of Legislative Oversight offers two recommendations to the County Council for action. The first recommendation addresses data management; the second proposes options for the second phase of OLO's base budget review of Montgomery County Fire and Rescue Services (MCFRS).

Recommendation #1: **Ask the Chief Administrative Officer to assess current MCFRS data management systems and practices, and develop an improvement plan.**

During the course of conducting this study, OLO found that MCFRS' data management system was incapable of readily producing requested budget and performance information. For example, all MCFRS budget and personnel complement data for FY06 and FY07 reflect the organizational structure that existed before the FY05 MCFRS reorganization. MCFRS staff had to manually re-sort data to produce budget and personnel information that align with the current organizational structure.

OLO recommends that the Council ask the Chief Administrative Officer (CAO) to assess MCFRS' data management systems and practices. The CAO's review should identify the need for expenditure, personnel, and performance data, and the gap between what is and what should be readily available for ongoing management of the department as well as for conducting more in-depth fiscal and program evaluations.

OLO recommends that the Council ask for a report back from the CAO on the findings of this assessment within the next 90 days, and that the CAO's report include a 12-month plan for improving MCFRS data management.

Recommendation #2: **Select one of the following assignments as Phase II of OLO's Base Budget Review of MCFRS:**

> **A. Analyze MCFRS' budgeted vs. actual personnel costs;**
>
> **B. Update MCFRS' Net Annual Work Hour calculation for uniformed positions;**
>
> **C. Analyze MCFRS' calculation of workforce requirements related to the implementation of four-person staffing; or**
>
> **D. Examine current and potential new fees for MCFRS services.**

The Council directed OLO to prepare the Base Budget Review of MCFRS in two phases. In Phase I, OLO provided an overview of MCFRS, its organizational structure, activities, operating budget, and staffing. Phase II of the MCFRS base budget review will be a more analytic piece of work that delves deeper into a specific component of the MCFRS budget.

Based on the work performed in Phase I, OLO nominates four possible topics for the Phase II analysis. Each of these is briefly described below.

As stated above in Recommendation #1, OLO found shortcomings in MCFRS' data management practices. The amount of time needed to complete any one of the Phase II options will depend on the availability of data required for the analysis.

A. Analyze MCFRS' Budgeted vs. Actual Personnel Costs:

In FY07, the Council appropriated $154 million for MCFRS personnel costs, an amount equal to 87 percent of the total MCFRS operating budget. In preparing the MCFRS budget, the Executive Branch estimates the costs of salaries, benefits, overtime, lapse, and other personnel-related costs. Available data indicate that actual expenditures in these personnel cost categories have differed significantly in recent years from their budgeted levels.

In this Phase II assignment, OLO would compare actual and budgeted MCFRS salaries, benefits, lapse, and overtime expenditures from the last three fiscal years. This study would produce recent year expenditure trends that could improve the precision of future year MCFRS budgeting as well as the information the department routinely uses to exercise its own fiscal management and internal oversight. The study would also be useful in terms of identifying the factors that drive annual increases in MCFRS' personnel costs.

B. Revisit MCFRS' Calculation of Net Annual Work Hours for Uniformed Positions:

Many public safety departments calculate "Net Annual Work Hours" as a measure of the actual number of hours per year uniform personnel are available for assignment to active duty. Net Annual Work Hour calculations take into account the number of hours uniformed personnel are, in practice, unavailable as a first-responder because they are, for example, on leave, in training, on special detail, or assigned to light duty as the result of injury. Net Annual Work Hour calculations are an essential building block for determining the total number of uniformed positions needed to meet staffing requirements for each shift.

Some years ago, MCFRS calculated the Net Annual Work Hours that the Department currently uses in budget preparation and staffing decisions. However, it is a recognized good management practice to periodically revisit this basic calculation to ensure it reflects what is actually occurring in terms of how staff hours are spent.

In this Phase II assignment, OLO would review how MCFRS currently measures actual employee duty hours for uniformed personnel and how the Department calculates the average Net Annual Work Hours per position. OLO would then offer recommendations for any revisions, based on updated information on the components of the calculation, e.g., training hours, use of leave, hours allocated to special details.

C. Analyze MCFRS' calculation of workforce requirements related to the implementation of four-person staffing:

The *Fire, Rescue, Emergency Medical Service, and Community Risk Reduction Master Plan* (*Master Plan*) was most recently updated and approved by the Council in 2005. The *Master Plan* recommends that MCFRS increase staffing on engines, aerial units, and rescue squads from three to four uniformed personnel. The *Master Plan* recommends phasing in implementation of "four-person staffing" over a seven-year period.

In FY07, the Council approved 36 new firefighter/rescuer positions to implement the first year of four-person staffing. The Department estimates that full implementation would require hiring an additional 200 new career firefighter/rescuers over the next six years.

In this Phase II assignment, OLO would examine the assumptions and calculations used to prepare the Department's estimates of new career positions needed to implement four-person staffing. OLO would review assumptions and calculations related to:

- Current MCFRS staffing levels and assignments;

- The number and type of apparatus at existing and planned stations; and

- Actual work hours needed to fully implement four-person staffing.

Depending on the results of OLO's review, this option might produce revised estimates of the numbers of new staff needed to implement four-person staffing.

D. Examine Current and Potential New Fees for MCFRS Services:

At present, MCFRS charges fees for various inspections, licenses, and permits. In FY06, MCFRS collected $1.5 million in fee revenue, an amount equal to about one percent of MCFRS' total operating budget.

In this Phase II assignment, OLO would:

- Examine current MCFRS fee schedules to determine whether the revenue generated approximately equals the program costs; and

- Conduct comparative research into the practices of other local governments to identify other MCFRS services that could be considered as fee-generating activities.

For each potential new fee identified, (e.g., ambulance service fee, false fire alarm fee), OLO would aim to estimate the revenue that could be generated, and prepare a summary list of the arguments for and against implementing such a fee.

CHAPTER XIII: AGENCY COMMENTS ON FINAL DRAFT

The Office of Legislative Oversight circulated a final draft of this report to the Chief Administrative Officer, the Montgomery County Fire and Rescue Service, and the Office of Management and Budget. OLO appreciates the time taken by Executive Branch staff to review the draft report and provide comments. The final report incorporates technical corrections provided by the Executive Branch.

The written comments received from the CAO are attached on the following page. The CAO concurs with the OLO recommendation regarding the need to assess and improve MCFRS data management practices. While OLO suggested that the Council receive an assessment of MCFRS data management deficiencies within the next 90 days, the CAO believes that this assessment will require 180 days to complete. In considering this report, the Council should decide when it wishes to receive the assessment of MCFRS data management needs.
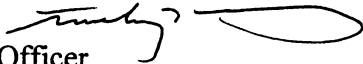
Isiah Leggett
County Executive

Timothy L. Firestine
Chief Administrative Officer

February 16, 2007

TO: Karen Orlansky, Director
            Office of Legislative Oversight

FROM: Timothy L. Firestine
            Chief Administrative Officer

SUBJECT: OLO Report 2007-6, A Base Budget Review of the Montgomery
            County Fire and Rescue Service, Phase 1

We have reviewed Draft OLO Report 2007-6, A Base Budget Review of the Montgomery County Fire and Rescue Service, Phase 1 and concur with the recommendations and findings of the report. We would like to acknowledge the outstanding cooperation and hard work of Mr. Aron Trombka and Mr. Richard Romer of the OLO staff. Their task of compiling the many complex details of such a large, complex department was quite daunting but they have presented a document which is concise and direct.

Montgomery County Fire and Rescue Service (MCFRS) will continue to work with the different county departments to address issues and recommendations as well as create and implement policies to improve the overall efficiency of MCFRS. Although we concur with Recommendation #1 regarding the need for an assessment of data management systems and practices, we believe that a proper assessment will take more than 90 days to accomplish. We recommend that this be changed to 180 days.

We look forward to working with the Council and OLO in discussing the report and its recommendations.

A BASE BUDGET REVIEW OF THE MONTGOMERY COUNTY FIRE AND RESCUE SERVICE

PHASE I

LIST OF APPENDICES

Appendix A

Glossary

Source: 2005 MCFRS *Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan*

<u>Advanced Life Support (ALS)</u> – Provision of emergency medical services including administering certain life saving drugs; electrical defibrillation; advanced airway management; intravenous maintenance therapy; and other advanced life support services.

<u>Aerial Unit</u> - A vehicle equipped with an aerial ladder, elevating platform, aerial ladder platform, or water tower that is designed and equipped to support fire fighting and rescue operations by positioning and providing access for personnel, supporting the vertical movement of equipment, or discharging water at positions elevated from the ground.

<u>Alarm</u> – A signal or message from a person or device indicating the existence of a fire, medical emergency, or other situation that requires fire-rescue action.

<u>Ambulance (or BLS Unit)</u> - An emergency medical service unit that is equipped and staffed to provide basic life support services, including patient transport.

<u>Apparatus</u> - Emergency fire-rescue vehicle(s).

<u>Basic Life Support (BLS)</u> - Provision of emergency medical services including patient assessment; airway management; cardiopulmonary resuscitation (CPR); rescue breathing; use of automatic external defibrillators (AEDs); treatment of puncture wounds, broken bones, sprains and strains; spine immobilization; child delivery; and similar basic-level life support services.

<u>Base budget</u> - A base budget (permanent budget) is established for those functions that require a long-term financial commitment or are essential to the fiscal operations of MCFRS. The base budget rolls forward every year and is the starting point that year's current operating budget.

<u>Brush unit</u> – A fire suppression unit specially equipped for fighting fires in brush, woodlands, grasslands, and croplands. Brush units are typically pickup trucks or jeeps equipped with four-wheel drive, a small water tank, small diameter hose, and equipment for suppressing fires in areas that larger apparatus cannot navigate.

<u>Budget</u> - A financial plan that aligns resources with goals and priorities.

<u>Capital budget</u> - Budget for capital assets and infrastructure such as facilities, renovation and certain equipment.

<u>Emergency</u> – An event that has resulted in, or has the potential to cause, casualties and/or property damage. Examples include: fires, explosions, medical incidents, severe weather, vehicle collisions, hazardous materials releases, structural or trench collapse, and acts of terrorism including the use of weapons of mass destruction.

<u>EMT-B</u> – "Emergency Medical Technician – Basic Level" is the State certification given to EMS providers who meet the minimum requirements for providing basic life support services within the State of Maryland. EMT-B certified personnel must successfully complete the State's EMT-B course and a field evaluation, and pass a series of State-issued written and practical tests.

<u>EMT-I (CRT-NREMT 199)</u> – "Emergency Medical Technician – Intermediate" (a.k.a. "Cardiac Rescue Technician") is the State certification given to EMS providers who meet the minimum requirements for providing an intermediate level of emergency medical services within the State of Maryland.

<u>EMT-P (Paramedic)</u> - "Emergency Medical Technician – Paramedic" is the State certification given to EMS providers who meet the minimum requirements for providing advanced life support services within the State.

<u>EMS unit</u> - A vehicle designed to provide emergency medical service and, with the exception of a paramedic chase car, or patient transport.

<u>Engine (or Pumper)</u> - Fire apparatus with a permanently mounted fire pump of at least 750 gallons per minute capacity, water tank, and hose body whose primary purpose is to combat structural fires.

<u>Engine-Tanker</u> - A term assigned to a unit that combines the features of both an engine and a small tanker. Engine-tankers typically carry a minimum of 1500 gallons of water, two to three times as much water as carried on a standard engine.

<u>Explosive</u> – Any substance designed to produce an explosion, or capable of producing an explosion by reacting with itself.

<u>Fire Suppression</u> – The activities involved in controlling and extinguishing fires.

<u>Hazardous material ("hazmat")</u> - any substance or material posing a threat to health and the environment [EPA definition]. Hazmats are classified as flammable/combustible liquids, compressed gases, corrosives, poisons/toxic materials, oxidizers, flammable solids, etiologic (biological) agents, cryogenics, and radioactive materials.

<u>Hazardous Incident Response Team (HIRT)</u> – MCFRS Hazardous Incident Response Team that responds to incidents involving hazardous materials, destructive devices, and weapons of mass destruction. The team is composed of apparatus and specially trained personnel.

Integrated Emergency Command Structure (IECS) – The operational chain of command and rank structure that integrates all fire and rescue services personnel, both career and volunteer, who have met the applicable training, experience, certification, and credentialing requirements. An IECS List is published periodically listing all certified fire and rescue service personnel who are qualified to comprise minimum staffing on fire-rescue apparatus.

Incident – An emergency event of a nature and scope requiring the services of MCFRS personnel.

Incident safety officer – An individual appointed to respond or assigned at an incident scene by the incident commander to ensure the safety and welfare of firefighters and rescuers in the operation when there is significant risk to firefighters.

Local Fire-Rescue Department (LFRD) - One of 19 independent State-chartered volunteer fire and rescue departments in Montgomery County. Each LFRD has at least one station, and about half of the LFRDs have two or more stations assigned to them by the County. Each LFRD has a uniformed Volunteer Chief, a Board of Directors, and uniformed and administrative personnel who volunteer their services to the community.

Medic unit (or ALS unit) - An emergency medical service unit that is equipped and staffed to provide advanced life support services, including patient transport.

Mutual Aid – Reciprocal assistance by emergency services under a prearranged plan through contract or written policy.

Operating budget - Budget for current and on-going operations, as well as one-time costs that result in the day-to-day business of MCFRS.

Rescue squad - A special service vehicle equipped to provide a wide variety of tools and equipment necessary to effect complex rescues and to assist at structure fire incidents.

Response time – The elapsed time from the 911 call to the arrival of MCFRS units at the incident scene.

Specialized apparatus – A fire department emergency vehicle that provides support services at emergency scenes, including command vehicles, rescue vehicles, hazardous material containment vehicles, air supply vehicles, electrical generation and lighting vehicles, or vehicles used to transport equipment and personnel.

Tanker - A fire suppression unit that carries a minimum of 2,000 gallons of water and provides firefighting water supply to areas without fire hydrants, or areas with non-functioning hydrants. MCFRS tankers carry 3,000-3,500 gallons of water and are a key resource with respect to the MCFRS' goal to achieve a fire flow of at least 500 gallons per minute for the initial 30 minutes of a structure fire in a non-hydranted area.

Appendix B

Montgomery County Executive Regulations Related to MCFRS

Regulation	Description
COMCOR 02.39A.01	Command and Communication Procedure for Fire and Rescue Corporation - Directions to County Firefighter/Rescuer Employees
COMCOR 21.02.01	Drug Screening Procedure for Volunteer Applicants
COMCOR 21.02.02	Local and Non-Local Travel Guidelines for the Fire and Rescue Corporations
COMCOR 21.02.03	Medical Standards for Operational Members and Candidates of the Montgomery County Fire and Rescue Service
COMCOR 21.02.04	Safety While on Apparatus
COMCOR 21.02.05	First Response for Trench Collapse Incidents
COMCOR 21.02.06	Cave-In Team Responses
COMCOR 21.02.07	Pager Criteria Policy
COMCOR 21.02.08	Apparatus Staffing Policy
COMCOR 21.02.09	Workers Compensation Claims
COMCOR 21.02.10	Personnel Hair Safety and Grooming Standards
COMCOR 21.02.11	Basic Life Support Quality Assurance Program for EMT-As
COMCOR 21.02.12	Conditions and Restrictions on Volunteering by DFRS Firefighters/Rescuers in the MCFRS
COMCOR 21.02.13	Requirements for Emergency Medical Services Membership
COMCOR 21.02.14	Purchasing, Contracting and Fixed Asset Management Procedures
COMCOR 21.02.15	Certification Standards for Training, Experience, and Credentialing Requirements
COMCOR 21.02.16	Administration of the LOSAP Program
COMCOR 21.02.17	Reassignment of LOSAP Program Responsibility
COMCOR 21.02.18	Code of Ethics and On-Duty Personal Conduct
COMCOR 21.02.19	Procedures for FRC Appeal Hearings
COMCOR 21.03.01	Integrated Emergency Command Structures (IECS)
COMCOR 21.03.02	Integrated Emergency Command Structures (IECS)
COMCOR 21.09.01	Fire and Rescue Service Disaster Plan
COMCOR 21.16.01	Fire and Rescue Corporation Personnel Regulations
COMCOR 22.00.01	Hazardous Materials Use Permit
COMCOR 22.00.02	Regulations Adopting and Amending Certain Standards of the National Fire Code Regarding Fire Protection Systems
COMCOR 22.00.03	Fire Safety Code - Fee Schedule for Permits, Licenses and Exceptions
COMCOR 22.00.04	Regulation Adopting and Amending Certain Editions of the National Fire Codes (Building Construction)

Source: Code of Montgomery County Regulations

Appendix C

National Fire Protection Association (NFPA) Standards Adopted by the County

The County adopted the following codes, standards and model laws, published by the National Fire Protection Association (NFPA) in Chapter 22 (Fire Safety Code). The NFPA codes, standards and model laws adopted pursuant to these regulations do not waive any other provision of Chapter 22, nor do they make them less restrictive.

NFPA Number	NFPA Code Standards
32	Standard for Drycleaning Plants
88A	Standard for Parking Structures
88B	Standard for Repair Garages
101	Code for Life Safety from Fire in Building and Structures
102	Standard for Tents, Grandstands and Air-Supported Structures Used for Places of Assembly
501A	Standards for Installation of Mobile Homes
1122L	Code for Unmanned Rockets
Engineering Practice Standards Flammable and Combustible Liquids	
30	Flammable and Combustible Liquids Code
321	Standard on Basic Classification of Flammable and Combustible Liquids
327	Standard Procedures for Cleaning and Safeguarding Small Tanks and Containers
385	Recommended Regulatory Standards for Tank Vehicles for Flammable and Combustible Liquids
386	Standard for Portable Shipping Tanks
Flammable Gasses	
50	Standard for Bulk Oxygen Systems at Consumer Sites
50A	Standard for Gaseous Hydrogen Systems at Consumer Sites
50B	Standard for Liquefied Hydrogen Systems at Consumer Sites
56A	Standard for the Use of Inhalation Anesthetics (Flammable and Nonflammable)
56B	Standard for Inhalation Therapy
56D	Standard for Hyperbaric Facilities
56E	Standard for Hypobaric Facilities
56F	Standard for Nonflammable Medical Gas Systems

Flammable Gasses	
58	Standard for Storage and Handling of Liquefied Petroleum Gases
59	Standard for the Storage and Handling of Liquefied Petroleum Gases at Utility Gas Plants
59A	Standard for the Production, Storage and Handling of Liquefied Natural Gas (LNG)
Hazardous Materials and Processes	
33	Standard for Spray Finishing Using Flammable and Combustible Materials
34	Standard for Dip Tanks Containing Flammable or Combustible Liquids
35	Standard for the Manufacture of Organic Coatings
40	Standard for the Storage and Handling of Cellulose Nitrate Motion Picture Film
40E	Code for the Storage of Pyroxylin Plastic
43A	Code for the Storage of Liquid and Solid Oxidizing Materials
43C	Code for the Storage of Gaseous Oxidizing Materials
43D	Code for the Storage of Pesticides in Portable Containers
51	Standard for the Installation and Operation of Oxygen Fuel Gas Systems for Welding and Cutting
51B	Standard for Fire Prevention in Use of Cutting and Welding Processes
56C	Safety Standard for Hospital Laboratories
57	Standard for Fumigation
490	Code for the Storage of Ammonium Nitrate
495	Code for the Manufacturing, Transportation, Storage and Use of Explosive Materials
654	Standard for the Prevention of Dust Explosions in the Plastics Industry
Transportation	
407	Standard for Aircraft Fuel Servicing
505	Standard for Type Designations, Areas of Use, Maintenance and Operation of Powered Industrial Trucks
Fire Extinguishing Systems	
11	Standard for Foam Extinguishing Systems
11A	Standard for High Expansion Foam Systems (Expansion Ratios from 100:1 to 1000:1)
11B	Standard on Synthetic Foam and Combined Agent Systems
12	Standard on Carbon Dioxide Extinguishing Systems
12A	Standard on Halongenated Fire Extinguishing Agent Systems – Halon 1301

Fire Extinguishing Systems	
12B	Standard on Halongenated Fire Extinguishing Agent Systems – Halon 1211
13	Standard for the Installation of Sprinkler Systems
14	Standard for the Installation of Standpipes and Hose Systems
15	Standard for Water Spray Fixed Systems for Fire Protection
16	Standard for the Installation of Foam-Water Sprinkler Systems and Foam-Water Spray Systems
17	Standard for Dry Chemical Extinguishing Systems
20	Standard for Installation of Centrifugal Fire Pumps
24	Standard for Outside Protection
75	Standard for the Protection of Electronic Commuter/Data Processing Equipment
Portable Fire Extinguishers	
10	Standard for the Installation of Portable Fire Extinguishers
Fire Warning Systems	
71	Standard for the Installation, Maintenance and Use of Central Station Protective Signaling Systems for Guard, Fire Alarm and Supervisory Service
72A	Standard on Installation, Maintenance and Use of Local Protective Signaling Systems for Watchmen, Fire Alarm and Supervisory Service
72B	Standard for the Installation, Maintenance and Use of Auxiliary Protective Signaling Systems for Fire Alarm Service
72C	Standard for the Installation, Maintenance and Use of Remote Station Protective Signaling Systems
72D	Standard for the Installation, Maintenance and Use of Proprietary Protective Signaling Systems for Watchmen, Fire Alarm and Supervisory Service
72E	Standard for Automatic Fire Detectors
74	Standard for the Installation, Maintenance and Use of Household Fire Warning Equipment
Storage	
81	Standard for Fur Storage, Fumigation and Cleaning
231	Standard for Indoor General Storage
231B	Standard for Storage of Cellular Rubber and Plastic Materials
231C	Standard for Rack Storage of Materials
232	Standard for the Protection of Records

Building Construction and Facilities	
31	Standard for Oil Burning Equipment
37	Standard for Stationary Combustion Engines and Gas Turbines
54	National Fuel Gas Code
80	Standard for Fire Doors and Windows
82	Standard for Rubbish Handling and Incinerators
86A	Standard for Ovens and Furnaces, Design, Location and Equipment
86B	Standard for Industrial Furnaces, Design, Location and Equipment
90A	Standard for the Installation of Air Conditioning and Ventilating Systems
91	Standard for the Installation of Blower and Exhaust Systems for Dust, Stock, Vapor Removal or Conveying
96	Standard for the Installation of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment
211	Standard for Chimneys, Fireplaces and Vents
241	Standard for Safeguarding Building Construction and Demolition Operations
418	Standard on Roof-Top Heliport Construction Protection

(1975 L.M.C., ch. 23, § 1; Res. No. 9-817.)
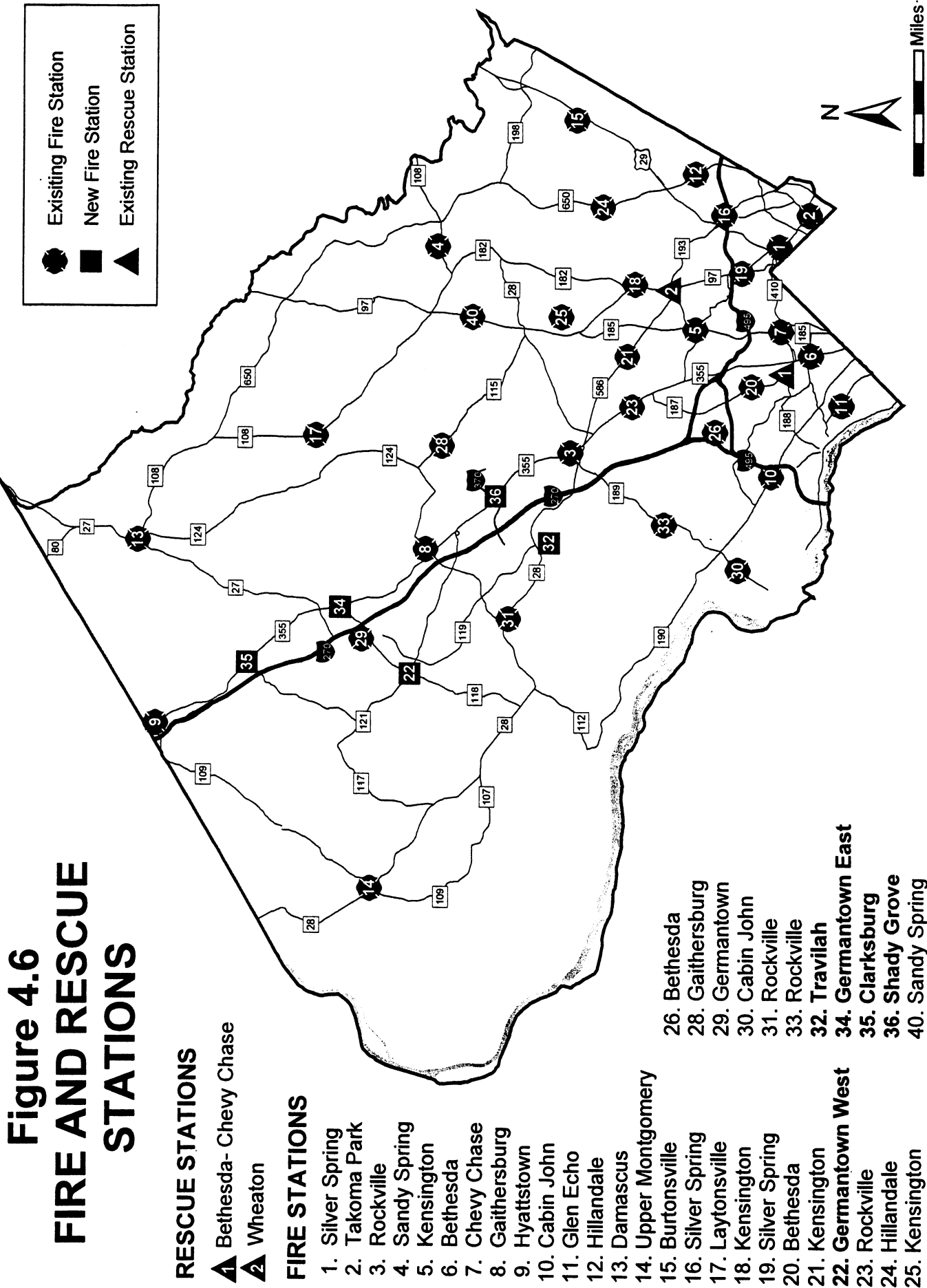
Figure 4.6
FIRE AND RESCUE STATIONS

February 27, 2007

N

Miles
0 1 2 3 4

RESCUE STATIONS

▲ 1 Bethesda- Chevy Chase
▲ 2 Wheaton

Legend

⬟ Existing Fire Station
◼ New Fire Station
▲ Existing Rescue Station

FIRE STATIONS

1. Silver Spring
2. Takoma Park
3. Rockville
4. Sandy Spring
5. Kensington
6. Bethesda
7. Chevy Chase
8. Gaithersburg
9. Hyattstown
10. Cabin John
11. Glen Echo
12. Hillandale
13. Damascus
14. Upper Montgomery
15. Burtonsville
16. Silver Spring
17. Laytonsville
18. Kensington
19. Silver Spring
20. Bethesda
21. Kensington
22. Germantown West
23. Rockville
24. Hillandale
25. Kensington
26. Bethesda
28. Gaithersburg
29. Germantown
30. Cabin John
31. Rockville
33. Rockville
32. Travilah
34. Germantown East
35. Clarksburg
36. Shady Grove
40. Sandy Spring

Appendix E
Response Time Goals for Emergency Fire and Rescue Incidents

Service	Response Time Goal (min)	Travel Time (min)	Service Area Performance Targets		
			Urban	Suburban	Rural
ALS – 1st Due	8	6	90%	80%	45%
BLS – 1st Due	6	4	90%	75%	50%
Transport Unit for ALS Patient	10	8	95%	80%	50%
Transport Unit for BLS Patient	12	10	95%	80%	50%
Fire – 1st Due	6	4	90%	75%	50%
Fire – 2nd Due	8	6	90%	75%	40%
Fire – 3rd Due	10	8	90%	75%	40%
Fire – 4th Due	12	10	90%	75%	40%
Tanker – 1st Due	8	6	N/A	N/A	45%
Tanker – 2nd Due	12	10	N/A	N/A	35%
Tanker – 3rd Due	18	16	N/A	N/A	25%
Extrication	9	7	90%	75%	50%
Heavy Rescue	12	10	95%	80%	25%
1st Due Aerial Unit (Any Fire)	8	6	85%	75%	40%
2nd Due Aerial Unit (Structure Fire)	12	10	80%	65%	25%
Full Assignment on Structure Fire	12	10	95%	70%	25%

Notes:

- Arrival of transport unit, whether a medic unit or an ambulance that can be upgraded to a medic unit with a paramedic.

- Arrival of transport unit, whether an ambulance, or medic unit when an ambulance is unavailable.

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

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

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

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

- Rescue Squad response required.

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

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

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

Appendix F

Apparatus Vehicle Inventory of MCFRS by LFRD

Fire and Rescue Department	Type of Apparatus										
	Engines	Aerials	Ambulances	Medic Units	4x4 Pumpers	Heavy Rescue Squads	Brush Trucks	Other Specialty	Support Units	Tankers	TOTAL
Bethesda	6	3	0	0	0	0	0	0	4	0	13
Burtonsville	2	2	2	1	0	2	0	0	4	0	13
Cabin John	3	1	2	1	0	1	2	8	4	1	23
Chevy Chase	2	0	0	0	0	0	0	3	2	0	7
Clarksburg	1	1	0	1	0	0	0	0	0	0	3
Damascus	2	0	1	1	1	0	1	0	4	0	10
Gaithersburg-Washington Grove	4	2	6	1	0	0	1	1	6	0	21
Germantown	2	1	1	2	0	1	0	1	4	0	12
Glen Echo	2	0	1	0	0	0	0	2	4	0	9
Hillandale	4	1	4	1	0	0	1	0	3	0	14
Hyattstown	2	0	1	0	0	0	2	2	4	1	12
Kensington	9	2	5	1	0	0	1	1	5	0	24
Laytonsville	2	0	1	0	1	1	1	0	4	1	11
Rockville	7	4	5	3	0	1	2	2	5	1	30
Sandy Spring	3	1	2	1	0	1	1	2	4	1	16
Silver Spring	5	2	4	1	0	0	0	1	3	0	16
Takoma Park	2	1	1	0	0	0	0	0	3	0	7
Upper Montgomery	2	0	1	1	1	0	2	3	3	1	14
B-CC Rescue	0	0	4	3	0	2	0	2	4	0	15
Wheaton Rescue	0	0	3	3	0	2	0	1	3	0	12
Subtotal	**60**	**21**	**44**	**21**	**3**	**11**	**14**	**29**	**73**	**6**	**282**
Apparatus not affiliated	1	0	0	0	0	1	0	24	10	0	36
Total	**61**	**21**	**44**	**21**	**3**	**12**	**14**	**53**	**83**	**6**	**318**

Appendix G

MCFRS Entry-level Firefighters/Rescuers Recruiting and Training Process

Stage	1	2	3	4
Status of Prospective Firefighter/ Rescuer	Individual expressing interest	Candidate	Recruit	Firefighter/ Rescuer
Activity	Recruitment	Testing, interviews, background and medical checks, and data management	Training	Day-to-day operations
Division Responsible	Community Risk Reduction Services Division	Administrative Services Division	Wellness, Safety and Training Division	Operations Division
Division Tasks	• Mass mailings of information and marketing materials • Advertising and media campaigns • Information networks among current staff • Partnerships with minority fire associations • Job fairs and trade association events • Partnerships with local secondary schools	• 1/2 of candidate pool shows up for a written exam. • MCFRS scores the exams and establishes a cutoff point for the test to establish a list of minimally qualified candidates • Scheduled for a oral interview • Preliminary background assessment to establish a list of the best qualified candidates • Conditional job offers which are contingent on a medical review, a complete background investigation, and the results of a candidate's physical abilities test (CPAT) • OHR extends a final job offer	• Enrollment in Recruit School • Training at PSTA • Oversight of safety	• LFRD assignment • Management of employee