# **Fire and Rescue Department**

## Mission

To provide the highest quality services to protect the lives, property, and environment of our community.

## Focus

The Fire and Rescue Department (FRD) currently operates 39 fire stations. The 39th Fire Station, Scotts Run, became operational on August 14, 2021. Fire stations are staffed full time by County personnel with supplemental services provided by volunteers. The department operates from an "all-hazards" platform and serves Fairfax County and its residents by suppressing fires; providing advanced life support; pre-hospital emergency medical care; rescue operations (i.e. searching for and rescuing persons who become trapped in fires, and extrication from vehicle accidents); and special operations, including the release or spill of hazardous materials, technical rescue (i.e. swift water rescue, building or trench collapse, high angle or rope rescue), marine operations (i.e. water rescue, boat fires, fuel spills) on the lower Potomac and Pohick Bay, and performing emergency planning. The Office of the Fire Marshal investigates fires, bombings, and hazardous material releases. The department also supports regional, national, and international emergency response operations during disaster situations through maintaining and supporting the Urban Search and Rescue (US&R) Team (Virginia Task Force 1), the National Capital Region Incident Management Team, and other response groups. The US&R Team is one of only two teams in the United States federally sponsored for international disaster response.

Additionally, FRD provides critical non-emergency services to prevent the 911 call, such as community risk reduction, educating the public on fire and personal safety issues, providing public information and prevention education, and enforcing fire prevention, and life safety codes in all public buildings. Robust life safety education programs, concentrated enforcement of fire prevention codes, and operational personnel dedicated to protecting lives are instrumental in the County maintaining a low fatality record.

FRD actively engages at local, regional, and national levels to meet the challenges of emergency response and prevention. Regionally, FRD has built collaborative relationships with surrounding localities and organizations necessary for responding to emergency incidents, regardless of jurisdictional boundaries, and across public safety disciplines.

FRD also operates a number of facilities to ensure personnel are trained and prepared to perform the mission. The Fire and Rescue Academy provides firefighter, rescue, and emergency medical training and conducts citizen emergency response training. Two apparatus shops are staffed to ensure emergency response vehicles are safe and service ready.

Despite high demands for emergency services (102,802 incidents in FY 2021) and tightened financial resources, FRD has maintained its ability to meet core responsibilities while striving to remain on the cutting edge of safety and technological advancements. The department continually seeks alternative funding sources to fund new and on-going initiatives. During FY 2021, FRD was awarded in excess of \$7.1 million in grant funds. Grant funding is used to support Urban Search and Rescue personnel, purchase personal protective equipment and emergency response vehicles, as well as to support firefighter training and education.

## **Fire and Rescue Department**

FRD is dedicated to being the best community-focused fire and rescue department and ensuring a safe and secure environment for all residents and visitors. To successfully meet challenges posed by increasing urbanization and a more densely populated response area, FRD will continue to be progressive in efforts to achieve economies of scale through regional cooperation, seek out innovative methods for keeping pace with technology, sustain programs to maintain a healthy workforce, and adjust staffing configurations to meet the needs of future growth in Fairfax County.

In August 2018, FRD became an accredited agency with the Commission on Fire Accreditation International (CFAI). FRD also holds a Class 1 rating from the Insurance Service Office (ISO). The department is one of only three agencies worldwide that serves a population greater than one million that is accredited by CFAI and holds an ISO Class 1 rating.

# Organizational Chart



## Budget and Staff Resources

Category	FY 2021 Actual	FY 2022 Adopted	FY 2022 Revised	FY 2023 Advertised	FY 2023 Adopted			
FUNDING								
Expenditures:								
Personnel Services	\$186,940,718	\$188,336,243	\$189,393,506	\$201,133,725	\$202,938,123			
Operating Expenses	29,629,246	31,510,212	35,688,641	32,508,082	32,508,082			
Capital Equipment	754,294	0	1,538,370	0	0			
Total Expenditures	\$217,324,258	\$219,846,455	\$226,620,517	\$233,641,807	\$235,446,205			
Income:								
Fire Prevention Code								
Permits	\$1,885,710	\$1,732,955	\$1,732,955	\$1,819,603	\$1,819,603			
Fire Marshal Fees	3,613,050	4,802,171	3,919,822	4,017,818	4,017,818			
Charges for Services	17,784	255,000	50,000	52,500	52,500			
EMS Transport Fee	19,550,940	18,900,000	19,773,669	20,366,879	20,366,879			
Total Income	\$25,067,484	\$25,690,126	\$25,476,446	\$26,256,800	\$26,256,800			
NET COST TO THE								
COUNTY	\$192,256,774	\$194,156,329	\$201,144,071	\$207,385,007	\$209,189,405			
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)								
Regular	1604 / 1604	1612 / 1612	1612 / 1612	1629 / 1629	1629 / 1629			

This department has 19/18.5 FTE Grant Positions in Fund 50000, Federal-State Grant Fund.

# FY 2023 Funding Adjustments

The following funding adjustments from the <u>FY 2022 Adopted Budget Plan</u> are necessary to support the FY 2023 program. Included are all adjustments recommended by the County Executive that were approved by the Board of Supervisors, as well as any additional Board of Supervisors' actions, as approved in the adoption of the Budget on May 10, 2022.

#### **Employee Compensation**

\$12,954,142

An increase of \$12,954,142 in Personnel Services includes \$7,463,578 for a 4.01 percent market rate adjustment (MRA) for all employees and \$229,415 for performance-based and longevity increases for non-uniformed merit employees, both effective July 2022, as well as \$3,456,751 for FY 2023 merit and longevity increases, including \$786,647 for 25-year longevity increases, for uniformed employees awarded on the employees' anniversary date. It should be noted that a larger number of employees are eligible for longevity increases in FY 2023 due to the deferral of longevity increases in FY 2021 and FY 2022. Additionally, an increase of \$1,804,398 is included to advance eligible uniformed employees, hired on or before June 30, 2021, one additional step in July 2022 on their respective pay plans C, F, and O to address compression issues.

### Fire Station 44 – Scotts Run

\$2,002,938

An increase of 17/17.0 FTE new positions and \$2,002,938 in funding is associated with full staffing for the Scotts Run Fire Station. As part of a phased-in approach, 8/8.0 FTE positions were funded to staff a Medic Unit for Fire Station 44, Scotts Run, as part of the FY 2022 Adopted Budget Plan. Funding for FY 2023 supports 15/15.0 FTE uniformed positions to staff a Fire Engine and 2/2.0 FTE support staff positions. The total includes \$1,647,738 in Personnel Expenses and \$355,200 in Operating Expenses. It should be noted that an increase of \$913,379 in Fringe Benefits funding is included in Agency 89, Employee Benefits for a total cost of \$2,916,317. For further information on Fringe Benefits, please refer to the Agency 89, Employee Benefits, narrative in the Nondepartmental program area section of Volume 1.

### **Department of Vehicle Services Charges**

\$642,670

An increase of \$642,670 in Department of Vehicle Services Charges is based on anticipated billings for maintenance and operating-related charges.

# Changes to FY 2022 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2022 Revised Budget Plan since passage of the <u>FY 2022 Adopted Budget Plan</u>. Included are all adjustments made as part of the FY 2021 Carryover Review, FY 2022 Mid-Year Review, FY 2022 Third Quarter Review, and all other approved changes through April 30, 2022.

### **Carryover Adjustments**

\$6.774.062

As part of the FY 2021 Carryover Review, the Board of Supervisors approved funding of \$6,744,062, including \$1,542,000 in Personnel Services for a one-time compensation adjustment of \$1,000 for merit employees and \$500 for non-merit employees paid in November 2021. The remaining amount of \$5,232,062 is due to encumbered funding of \$3,832,072 in Operating Expenses and \$1,399,990 in Capital Equipment.

## **Cost Centers**

The three cost centers of the Fire and Rescue Department are the Office of the Fire Chief, the Operations Bureau, and the Administrative Services Bureau. The cost centers work together to fulfill the mission of the department and carry out key initiatives for the fiscal year.

### Office of the Fire Chief

The Office of the Fire Chief manages and coordinates all aspects of the Fire and Rescue Department which include directing overall policy, planning and management of the department. This office also includes the department's Data Analytics Strategy Management Division, the Fiscal Services Division, the Health and Wellness Section, the Information Technology Division, the Planning Section, and the Public Information Office. These divisions work together to ensure the Operations Bureau has the resources needed to respond to emergency incidents.

	FY 2021	FY 2022	FY 2022	FY 2023	FY 2023		
Category	Actual	Adopted	Revised	Advertised	Adopted		
EXPENDITURES							
Total Expenditures	\$12,292,488	\$15,103,812	\$16,940,354	\$15,626,240	\$15,683,720		
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)							
Regular	47 / 47	47 / 47	57 / 57	48 / 48	57 / 57		

## **Operations Bureau**

The Operations Bureau is composed of the EMS Operations Division, the Field Operations Division, the Special Operations Division, and the Training Division. The goal of the Operations Bureau is to save lives and protect property by providing emergency and non-emergency response to residents and visitors of Fairfax County. The Operations Bureau operates on three separate 24-hour rotating shifts. Each shift is led by two Deputy Fire Chiefs. The County is now separated geographically into eight battalions, each managed by a Battalion Fire Chief. The previous deployment model of one Deputy Fire Chief and seven battalions created a disparity in response times and call volume. The new deployment model will allow for desired span of control, reduced response times, and additional leadership and mentoring opportunities. Fire suppression personnel and paramedics work in tandem to ensure the highest level of safety and care for residents and visitors of Fairfax County. This bureau also provides basic and volunteer training, professional certifications, and continuing education.

Category	FY 2021 Actual	FY 2022 Adopted	FY 2022 Revised	FY 2023 Advertised	FY 2023 Adopted		
EXPENDITURES							
Total Expenditures	\$180,990,920	\$180,176,793	\$183,780,814	\$191,943,063	\$193,593,561		
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)							
Regular	1369 / 1369	1377 / 1377	1373 / 1373	1388 / 1388	1388 / 1388		

### **Administrative Services Bureau**

The Administrative Services Bureau includes the Human Resources Division, the Office of the Fire Marshal, the Policy and Grievances Administration Division, the Support Services Division, and the Volunteer Liaison's Office. This bureau strives to provide a representative work force through equal employment opportunity, active recruitment of qualified applicants and volunteers, overseeing the volunteer program, and maintaining professional standards for the department.

Category	FY 2021 Actual	FY 2022 Adopted	FY 2022 Revised	FY 2023 Advertised	FY 2023 Adopted			
EXPENDITURES								
Total Expenditures	\$24,040,850	\$24,565,850	\$25,899,349	\$26,072,504	\$26,168,924			
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)								
Regular	188 / 188	188 / 188	182 / 182	193 / 193	184 / 184			

## **Position Detail**

The FY 2023 Adopted Budget Plan includes the following positions:

OFFICE	OF THE FIRE CHIEF - 57 Positions		
1	Fire Chief	1	Internet Architect III
1	Assistant Fire Chief	1	Geo. Info. Spatial Analyst IV
2	Battalion Chiefs	1	Geo. Info. Spatial Analyst III
1	Fire Captain II	1	Geo. Info. Spatial Analyst II
3	Fire Captains	2	Financial Specialists IV
1	Fire Lieutenant	4	Financial Specialists III
1	Program and Procedures Coordinator	2	Financial Specialists II
1	Info. Tech. Program Mgr. I	2	Financial Specialists I
3	Management Analysts IV	1	Public Health Nurse III
4	Management Analysts II	1	Public Information Officer III
1	Management Analyst I	1	Communications Specialist II
1	Public Information Officer IV	1	Data Analyst II
1	Public Information Officer III	2	Data Analysts I

	OF THE FIRE CHIEF	4	Dusiness Applied I		
1	Programmer Analyst IV	1	Business Analyst I		
1	Programmer Analyst III	1	Management Analyst II		
1	Programmer Analyst II	1	Administrative Assistant V		
1	Network Telecom. Analyst III	4	Administrative Assistants IV		
1	Network Telecom. Analyst II	1	Administrative Assistant III		
3	Network Telecom. Analysts I				
	TIONS BUREAU - 1,388 Positions				
1	Assistant Fire Chief	1	Management Analyst II		
9	Deputy Fire Chiefs	3	Management Analysts I		
33	Battalion Chiefs, 1 AP	1	Emergency Management Specialist III		
37	Captains II	1	Assistant Producer		
119	Captains, 1 AP [+4]	1	Material Management Specialist III		
173	Lieutenants, 5 AP	1	Material Management Specialist I		
571	Fire Technicians, 3 AP [+4]	3	Administrative Assistants IV		
427	Firefighters, 4 AP [+7]	1	Administrative Assistant III		
3	Nurse Practitioners	2	Administrative Assistants II		
1	Management Analyst III				
ADMINI	STRATIVE SERVICES BUREAU - 184 Positions				
1	Assistant Fire Chief	1	Financial Specialist III		
2	Deputy Fire Chiefs	1	Financial Specialist I		
6	Battalion Chiefs	1	Emergency Management Specialist III		
4	Captains II	1	Business Analyst III		
17	Captains	1	Business Analyst II		
13	Lieutenants	1	Code Specialist IV [+1]		
8	Fire Technicians	3	Code Specialists II		
3	Vehicle Maintenance Coordinators	1	Fire Inspector IV		
1	Fire Apparatus Supervisor	5	Fire Inspectors III		
2	Assistant Fire Apparatus Supervisors	38	Fire Inspectors II		
8	Fire Apparatus Mechanics	1	Contract Analyst II		
1	Engineer V	1	Instrument Technician III		
1	Engineer IV	1	Instrument Technician II		
13	Engineers III	1	Inventory Manager		
3	Engineering Technicians I	2	Administrative Assistants V		
1	Management Analyst IV	6	Administrative Assistants IV		
2	Management Analysts III	6	Administrative Assistants III		
4	Management Analysts II	2	Administrative Assistants II		
3	Management Analysts I	3	Material Management Specialists III [+1]		
1	Human Resources Generalist IV	2	Material Management Specialists II		
2	Human Resources Generalists III	2	Material Management Specialists I		
2	Human Resources Generalists II	1	Material Management Driver		
3	Human Resources Generalists I	1	Truck Driver		
1	Internal Affairs Investigator	·			
	niformed Positions/188 Civilian Positions				
, •					
+	Denotes New Position(s)				
AP	Denotes Alternative Placement Program				

# Performance Measurement Results

Fairfax County Fire and Rescue Department has identified a four-pronged approach to a total community fire and life safety program:

- Prevent the 911 call through community outreach, education, and prevention programs including building inspections and code enforcement;
- Respond to structure fires to save lives and property;

- Respond to medical emergencies to save lives; and
- Respond to all hazards incidents to save lives, property, and the environment.

The overarching priority of the Fairfax County Fire and Rescue Department is to "Prevent the 911 Call" to reduce the risk that any Fairfax County resident, business employee, or visitor will suffer a fire injury or death, and reduce the chances of fire-related property loss or damage. To achieve the goal of preventing the 911 call, FRD is committed to community risk reduction, and providing essential fire prevention and life safety education programs.

The objective of the Community Risk Reduction Section's Life Safety Education program is to educate 20,000 preschool and kindergarten students, 16,000 school-age children, and 10,000 older adults annually in an effort to eradicate fire deaths and burn injuries within these high-risk populations. In FY 2021, all life safety education programs were placed on hold since schools and nursing homes in Fairfax County closed to the public due to the COVID-19 pandemic. In FY 2022 and FY 2023, the number of life safety education programs presented to member of high-risk populations should increase as a result of transitioning to virtual life safety education programs.

In FY 2021, Operations responded to 102,802 incidents and 52,115 patients were transported to local hospitals. In FY 2021, the total property value loss from fires was \$10.5 million which was significantly lower than the previous year. The total property value saved from fire suppression activities was \$0.7 billion.

FRD reports cardiac arrest outcomes using the Utstein template, the international standard for cardiac arrest reporting, as it more accurately reflects the populations of patients for whom prehospital interventions are likely to have the most impact, i.e., those presenting in a shockable rhythm. In CY 2020, FRD attempted resuscitation for 674 patients found in cardiac arrest; of those, 505 were presumed to be of cardiac origin. Only 87 met the Utstein criteria (witnessed arrest + presumed cardiac origin + presented in shockable rhythm). Eight of those patients had returned of spontaneous circulation (POSC) meaning they had a pulse upon arrival at a hospital (10.3 percent). Five patients survived to admission and four survived to discharge (46.0 percent). All four with a cerebral performance category (CPC) of 1 or 2 at discharge, meaning they could resume activities of daily living. Latest data from the American Heart Association reveals that 10.4 percent of adults and 11.1 percent of children who presented in an out of hospital cardiac arrest survived to hospital discharge.

The National Fire Protection Association (NFPA), a standard-setting organization for fire departments, adopts standards regarding response time objectives and staffing levels. The Service Quality indicators reported by FRD track the percent of time the department meets NFPA standards. NFPA response time standards for structure fires require the first engine company to arrive on the scene of a structure fire within five minutes and 20 seconds, and 15 firefighters to arrive on scene within nine minutes and 20 seconds, 90 percent of the time. In FY 2021, the department met these standards 55.2 percent and 88.7 percent of the time. NFPA response time standards for medical emergencies require an advanced life support (ALS) transport unit on scene within nine minutes and an AED on scene within five minutes, 90 percent of the time. In FY 2021, these response goals were met 89.0 percent and 57.6 percent of the time. The department's ultimate goal is to improve response times to both fire and medical incidents through increased staffing and emergency vehicle pre-emption on traffic signals.

The Office of the Fire Marshal activities are designed to minimize property loss in commercial (non-residential) fires through effective and comprehensive inspections that enforce all applicable codes. In FY 2021, total revenue for all inspection activities increased from FY 2020, for a total of \$5,567,074, due to pre-occupancy inspections increasing and several large projects were completed. However, a change in scheduling for acceptance testing of fire protection system reduced the need for overtime inspections which decreased the amount of revenue generated from billing at overtime rates. FRD anticipates this trend to continue in FY 2022 and FY 2023 which may impact cost recovery percentages. The Office of the Fire Marshal is in the process of re-evaluating the revenue model for future inspections and system testing activities.

Maintaining a well-trained fully staffed workforce is key to the department's ability to perform its mission. The Training Division graduated 42 career firefighters from two recruit schools during FY 2021. This number was significantly lower than previous years as a result of smaller recruit schools during the COVID-19 pandemic. In FY 2022 and FY 2023, the FRD plans to hold more recruit schools with smaller number of recruits to meet projected staffing needs.

The COVID-19 pandemic continued to have a negative impact on the total number of volunteers in Volunteer Fire Departments. Implementation of the Volunteer SAFER Recruitment and Retention grant was delayed, and the Volunteer Recruit Schools was postponed until FY 2022. In FY 2021, the total number of volunteer operational hours, as well as the number of times volunteer units were placed in service declined due to reduced riding opportunities to limit COVID-19 exposure, the elimination of standby events, and the cancellation of large public events such as Viva Vienna, Herndon Festival, and Celebrate Fairfax. It is anticipated the volunteer numbers will remain low in FY 2022 and begin to stabilize in FY 2023.

Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2021 Actual	FY 2022 Estimate	FY 2023 Estimate
Operations Bureau						
Percent ALS transport units on scene within 9 minutes	87.45%	90.82%	90.00%	89.01%	90.00%	90.00%
AED response rate within 5 minutes	52.71%	57.47%	60.00%	57.62%	60.00%	60.00%
Total incidents responded to	104,937	101,961	105,000	102,802	105,000	105,500
Fire suppression response rate for the arrival of an engine company on a structure fire within 5 minutes and 20 seconds	50.98%	48.88%	52.00%	55.15%	55.00%	55.00%
Fire suppression response rate for 15 personnel within 9 minutes and 20 seconds	76.36%	81.88%	85.00%	88.69%	85.00%	85.00%
Percent of cardiac arrest patients arriving at the Emergency Department with a pulse <sup>1</sup>	22.8%	9.0%	20.0%	10.3%	20.0%	20.0%
Number of smoke alarms distributed and installed	1,067	6,390	3,000	235	200	3,000
Number of File of Life used as resource in patient encounters	460	1,634	800	1,534	1,500	1,500
Fire loss (millions)	\$18.1	\$58.3	\$16.0	\$10.5	\$16.0	\$16.0
Fire loss as percent of total property valuation	0.01%	0.03%	0.01%	0.00%	0.01%	0.01%
Total civilian fire deaths	3	5	2	5	2	2
Civilian fire deaths per 100,000 population	0.26	0.42	0.17	0.42	0.17	0.17
Civilian fire-related burn injuries	27	7	15	15	15	15
Civilian fire-related burn injuries per 100,000 population	1.8	0.6	1.3	1.3	1.3	1.3
Trained career firefighters added to workforce	37	80	90	42	109	95

## **Fire and Rescue Department**

Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2021 Actual	FY 2022 Estimate	FY 2023 Estimate
Office of the Fire Chief						
Preschool and kindergarten students served	10,577	7,539	18,500	1,096	20,000	20,000
Senior citizens served	8,507	4,040	9,000	694	10,000	10,000
Children (5 years and under) deaths due to fire	0	0	0	0	0	0
Children (5 years and under) burn injuries	0	0	0	0	0	0
Senior citizen (over age 60) deaths due to fire	2	2	1	2	1	1
Senior citizen (over age 60) burn injuries	6	2	2	4	2	2
Transport billing (in millions)	\$21.2	\$20.7	\$18.9	\$19.6	\$20.0	\$20.0
Administrative Services Bureau						
Fire investigations conducted (including arson cases)	287	243	250	205	240	240
Hazardous materials cases investigated	223	102	125	30	120	120
Fire inspection activities conducted	20,206	23,936	20,000	29,960	22,500	22,500
Systems testing activities conducted	10,423	10,557	11,000	7,485	7,500	7,500
Revenue generated for all inspection activities	\$5,911,337	\$4,977,625	\$4,262,832	\$5,567,074	\$4,253,940	\$3,951,622
Percent of fire prevention services cost recovered	96.6%	69.8%	65.5%	82.1%	58.9%	53.5%
Percent total fire investigation cases closed (fires, bombings, threats and arson)	89.0%	94.0%	90.0%	72.0%	85.0%	85.0%
Percent arson cases closed	41.0%	25.0%	40.0%	53.0%	40.0%	40.0%
Percent hazardous materials cases closed	96.0%	100.0%	90.0%	100.0%	85.0%	85.0%
Total fire loss for commercial structures	\$760,405	\$2,466,151	\$2,000,000	\$1,635,253	\$2,000,000	\$2,000,000
Volunteer operational hours	81,364	66,695	60,000	63,723	65,000	67,000
Times volunteer-staffed emergency vehicles are placed in service annually	1,358	1,429	1,500	1,262	1,400	1,400

<sup>&</sup>lt;sup>1</sup> The Fairfax County Fire and Rescue Department aims to meet or exceed the national average for out of hospital cardiac arrest, which ranges from 10 to 15 percent between the years of 2006 through 2016. As a result, the department expects at least 20 percent of cardiac arrest patients to arrive at Emergency Departments with a pulse in FY 2022 and FY 2023.

A complete list of performance measures can be viewed at <a href="https://www.fairfaxcounty.gov/budget/fy-2023-adopted-performance-measures-pm">https://www.fairfaxcounty.gov/budget/fy-2023-adopted-performance-measures-pm</a>