

# Fire and Rescue Department

## FY 2024 Advertised Budget Plan: Performance Measures

### Office of the Fire Chief

#### Goal

To provide management, administrative and public information and educational services to department personnel and to the general public to ensure the efficient daily operations of the Fire and Rescue Department.

#### Objective

To present life safety education programs to members of risk populations, including 20,000 or more preschool and kindergarten students, 16,000 students enrolled in the Fairfax County School-Age Child Care program, and 10,000 or more senior citizens, in order to approach a fire death rate of zero and a burn injury total of 2 or less.

#### Performance Indicators

Indicator	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
<b>Output</b>						
Preschool and kindergarten students served <sup>1</sup>	7,539	1,096	20,000	21,000	24,000	24,000
Senior citizens served <sup>1</sup>	4,040	694	10,000	10,500	15,000	15,000
School age children served <sup>1</sup>	8,820	237	16,000	16,800	18,000	18,000
<b>Efficiency</b>						
Cost per high risk citizen served	\$19.31	\$187.02	\$8.45	\$8.85	\$8.01	\$7.98
<b>Service Quality</b>						
Percent of respondents satisfied with life safety program	100%	100%	100%	100%	100%	100%
<b>Outcome</b>						
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	1	1	1
Senior citizen (over age 60) burn injuries	2	4	2	6	2	2

<sup>1</sup> In FY 2021, life safety education programs were on hold since schools and nursing homes were closed to visitors as a result of the COVID-19 pandemic. In FY 2023 and FY 2024, the number of life safety education programs presented to members of risk populations should increase as a result of schools and nursing homes opening to visitors.

# Fire and Rescue Department

## FY 2024 Advertised Budget Plan: Performance Measures

### Office of the Fire Marshall

#### Objective

To conduct investigations so that at least 95 percent of the fire cases and hazardous materials cases are peer reviewed by Case Managers, with a closure rate of 85 percent of fire investigation cases, 85 percent of hazardous materials cases and 40 percent of arson cases within a year.

#### Performance Indicators

Indicator	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
<b>Output</b>						
Fire investigations conducted (including arson cases)	243	205	240	232	240	240
Arson investigations conducted	48	34	40	32	40	40
Hazardous materials cases investigated	102	30	120	21	30	30
<b>Efficiency</b>						
Average fire and hazardous materials cases per investigator	84.0	107.0	80.0	125.0	80.0	80.0
<b>Service Quality</b>						
Percent of cases that peer reviewed by a Case Manager	100.0%	95.0%	95.0%	95.0%	95.0%	95.0%
<b>Outcome</b>						
Percent total fire investigation cases closed (fires, bombings, threats and arson)	94.0%	72.0%	85.0%	75.0%	85.0%	85.0%
Percent arson cases closed	25.0%	53.0%	40.0%	44.0%	40.0%	40.0%
Percent hazardous materials cases closed	100.0%	100.0%	85.0%	100.0%	85.0%	85.0%

# Fire and Rescue Department

## FY 2024 Advertised Budget Plan: Performance Measures

### Objective

To maintain the fire loss rate for commercial structures at no greater than \$2.0 million by conducting effective and comprehensive inspections that enforce all applicable codes, with a service delivery target of recovering at least 58.9 percent of all fire prevention services costs per year.

### Performance Indicators

Indicator	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
<b>Output</b>						
Fire inspection activities conducted	23,936	29,960	22,500	25,210	25,000	25,000
Systems testing activities conducted	10,557	7,485	7,500	8,182	8,000	8,000
Revenue generated for all inspection activities <sup>1</sup>	\$4,977,625	\$5,567,074	\$4,253,940	\$2,794,661	\$4,981,322	\$4,981,322
<b>Efficiency</b>						
Net cost per inspection (revenues in excess of average cost)	\$20.99	\$116.26	\$42.71	(\$10.88)	\$92.32	\$87.01
Average revenue generated per inspection/systems testing activity	\$145.94	\$148.67	\$141.80	\$83.69	\$166.04	\$166.04
<b>Service Quality</b>						
Percent of fire prevention services cost recovered	69.8%	82.1%	58.9%	47.0%	69.3%	67.8%
<b>Outcome</b>						
Total fire loss for commercial structures	\$2,466,151	\$1,635,253	\$2,000,000	\$1,170,778	\$2,000,000	\$2,000,000

<sup>1</sup> In FY 2021, total revenue generated from all inspection activities increased due to a higher number of pre-occupancy inspections and several large projects were completed.

# Fire and Rescue Department

## FY 2024 Advertised Budget Plan: Performance Measures

### Operations Bureau

#### Objective

For Emergency Medical Services (EMS) to provide on-scene Advanced Life Support (ALS) capability within 9 minutes and a first responder with an Automatic External Defibrillator (AED) within 5 minutes, so that at least 20 percent of patients with witnessed non-traumatic cardiac arrest and present with a shockable rhythm arrive at a hospital with a pulse.

#### Performance Indicators

Indicator	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
<b>Output</b>						
Patients transported	52,470	52,115	55,000	59,441	55,000	55,000
<b>Service Quality</b>						
ALS units on scene within 9 minutes (National Standard 90%)	90.82%	89.01%	90.00%	85.17%	90.00%	90.00%
AED response rate within 5 minutes (National Standard 90%)	57.47%	57.62%	60.00%	58.30%	60.00%	60.00%
<b>Outcome</b>						
Cardiac arrest patients arriving at the Emergency Department with a pulse (National Average 21%)	9.0%	10.3%	20.0%	17.6%	20.0%	20.0%

The Fire and Rescue Department reports cardiac arrest outcomes using the Utstein template, which is the international standard for cardiac arrest reporting, as it more accurately reflects the population of patients for whom pre-hospital interventions have the most impact. The strongest predictor of survival is the return of spontaneous circulation (a pulse) prior to arrival at a hospital; as reported by the American heart association, survival rates for out of hospital cardiac arrest when treated by EMS has ranged from 10-15 percent between the years of 2006 through 2016. The Fairfax County Fire and Rescue Department aims to meet or exceed the national average for out of hospital cardiac arrest and expects at least 20 percent of cardiac arrest patients to arrive at Emergency Departments with a pulse in FY 2022 and FY 2023.

# Fire and Rescue Department

## FY 2024 Advertised Budget Plan: Performance Measures

### Objective

To deploy suppression resources to a structure fire so that the first engine company arrives within 5 minutes, 20 seconds of dispatch and for 15 personnel to arrive within 9 minutes, 20 seconds in order to prevent civilian deaths and burn injuries, while striving to limit fire loss to \$16 million or less than 0.01 percent of the property value.

### Performance Indicators

Indicator	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
<b>Output</b>						
Total incidents responded to	101,961	102,802	105,000	118,752	110,000	115,000
<b>Efficiency</b>						
Cost per suppression and EMS incident	\$2,534	\$2,525	\$2,539	\$2,580	\$2,560	\$2,508
<b>Service Quality</b>						
Fire suppression response rate for arrival of an engine company within 5 minutes, 20 seconds (National Standard 90%)	48.88%	55.15%	55.00%	58.92%	55.00%	55.00%
Fire suppression response rate for 15 personnel within 9 minutes, 20 seconds (National Standard 90%)	81.88%	88.69%	85.00%	87.59%	85.00%	85.00%
<b>Outcome</b>						
Fire loss (millions) <sup>1</sup>	\$58.3	\$10.5	\$16.0	\$18.8	\$16.0	\$16.0
Fire loss as percent of total property valuation	0.03%	0.00%	0.01%	0.01%	0.01%	0.01%
Property value saved from fire (billions)	\$2.3	\$0.7	\$2.5	\$5.9	\$2.0	\$2.0
Total civilian fire deaths	5	5	2	4	2	2
Civilian fire deaths per 100,000 population	0.42	0.42	0.17	0.34	0.17	0.17
Civilian fire-related burn injuries	7	15	15	21	15	15
Civilian fire-related burn injuries per 100,000 population	0.6	1.3	1.3	1.8	1.3	1.3

<sup>1</sup> In FY 2020, the total property value lost was \$58.3 million. Over \$40 million was from one significant fire in a multi-structure commercial complex under construction in the Mount Vernon District.

# Fire and Rescue Department

## FY 2024 Advertised Budget Plan: Performance Measures

### Objective

A community outreach program titled "Safety in Our Community" (SIOC) and "Wellness in Our Community" (WIOC) where fire station personnel canvas neighborhoods to ensure that single family homes and residences in Fairfax County have at least one working smoke alarm while providing fire and life safety information including File of Life Forms.

### Performance Indicators

Indicator	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
<b>Output</b>						
Time spent on SIOC/WIOC activities	6,019	0	0	NA	NA	NA
<b>Efficiency</b>						
Cost of SIOC materials per single family home reached	NA	NA	NA	NA	NA	NA
<b>Service Quality</b>						
Fire & Life Safety Information door hangers distributed to homes	3,238	0	0	NA	NA	NA
File of Life (FOLs) distributed.	327	0	0	NA	NA	NA
<b>Outcome</b>						
Number of smoke alarms distributed and installed.	6,390	235	200	NA	NA	NA
No. of FOLs used as resource in patient encounters.	1,634	1,534	1,500	2,015	1,600	1,600

In FY 2021, FRD placed the Community Risk Reduction (CRR) program on hold due to the COVID-19 pandemic. Smoke alarms are now only installed when requested.

# Fire and Rescue Department

## FY 2024 Advertised Budget Plan: Performance Measures

### Volunteer Liaison

#### Objective

To obtain an amount of 65,000 or more direct volunteer service hours, achieving sufficient volunteer staffing so that volunteer-staffed emergency vehicles can be placed in service at least 1,400 times annually.

#### Performance Indicators

Indicator	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
<b>Output</b>						
Volunteer operational hours	66,695	63,723	65,000	74,133	75,000	75,000
Volunteer emergency vehicles available for staffing	25	23	23	23	23	23
<b>Efficiency</b>						
Average operational service hours per volunteer	260.0	216.0	230.0	257.0	260.0	260.0
Average number of volunteer-staffed emergency vehicles in service per day	3.9	3.5	3.7	4.1	4.4	4.4
<b>Service Quality</b>						
Percent of volunteer candidates who complete firefighter training	100%	NA	90%	90%	100%	100%
Percent of new volunteers who are active in VFD at end of one year	60%	60%	65%	50%	60%	60%
<b>Outcome</b>						
Times volunteer-staffed emergency vehicles are placed in service annually	1,429	1,262	1,400	1,512	1,600	1,600
Percent change in volunteer operational service hours	(19%)	(4%)	2%	16%	1%	1%

The COVID-19 pandemic once again had a negative impact on Volunteer Numbers for the following reasons: 1. Implementation of the SAFER grant for Recruitment and Retention was delayed. 2. Reduced riding opportunities to limit exposure, the elimination of standby events, and the cancellation of large events such as Viva Vienna, Herndon Festival, and Celebrate Fairfax. 3. In FY 2021, the Volunteer Fire School was cancelled and postponed to FY 2022.

# Fire and Rescue Department

## FY 2024 Advertised Budget Plan: Performance Measures

### Training Division

#### Objective

To train career FF/EMT and FF/Medic recruits, in compliance with local, state and federal standards, with at least a 90 percent graduation rate, adding qualified personnel as required to meet current and future operational staffing requirements.

#### Performance Indicators

Indicator	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
<b>Output</b>						
Recruit schools started	2	2	5	5	4	4
Career recruits enrolled	98	81	135	99	120	122
<b>Efficiency</b>						
Operating cost per career recruit	\$70,315	\$101,133	\$74,833	\$78,830	\$87,722	\$84,996
<b>Service Quality</b>						
Percent of recruit firefighters graduating	82%	84%	81%	92%	91%	90%
<b>Outcome</b>						
Trained career firefighters added to workforce	80	42	109	91	109	109

The Training Division continues consecutive schools which overlap the fiscal years, with each school being 26 weeks in length.



# Fire and Rescue Department

## FY 2024 Advertised Budget Plan: Performance Measures

### Fiscal Services Division

#### Objective

To maximize revenues from the Emergency Medical Services (EMS) transport billing program under a compassionate billing philosophy by collecting an anticipated \$21.0 million.

#### Performance Indicators

Indicator	FY 2020 Actual	FY 2021 Actual	FY 2022 Estimate	FY 2022 Actual	FY 2023 Estimate	FY 2024 Estimate
<b>Output</b>						
Bills processed	52,539	51,007	52,313	57,835	53,794	53,794
<b>Efficiency</b>						
Program costs as a percentage of revenue	6.0%	4.2%	6.5%	4.5%	6.0%	6.4%
<b>Service Quality</b>						
Percent of complaints resolved to the complainant's satisfaction	100%	100%	100%	100%	100%	100%
<b>Outcome</b>						
Annual transport revenue billing (in millions)	\$20.7	\$19.6	\$20.0	\$21.5	\$21.5	\$21.5