

# **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 38 fire stations. 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 Fire Marshal's Office 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 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.



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.

FRD actively engages at local, regional and national levels to meet the challenges of emergency response and prevention. 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. 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.

Despite high demands for emergency services (over 103,000 incidents in FY 2018) 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. To fund many initiatives the department continually seeks alternative funding sources. During FY 2018, FRD was awarded in excess of \$13.1 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.

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.

# **Budget and Staff Resources**

	FY 2018	FY 2019	FY 2019	FY 2020
Category	Actual	Adopted	Revised	Advertised
FUNDING				
Expenditures:				
Personnel Services	\$166,456,226	\$180,113,118	\$178,863,439	\$186,673,595
Operating Expenses	32,230,616	29,263,305	34,205,138	29,696,342
Capital Equipment	419,231	0	1,534,433	0
Total Expenditures	\$199,106,073	\$209,376,423	\$214,603,010	\$216,369,937
Income:				
Fire Prevention Code Permits	\$1,843,668	\$1,887,750	\$1,887,750	\$1,925,505
Fire Marshal Fees	5,060,907	4,902,631	5,144,941	5,247,840
Charges for Services	483,878	72,980	255,238	260,238
EMS Transport Fee	21,256,948	20,215,130	21,256,948	21,469,517
Total Income	\$28,645,401	\$27,078,491	\$28,544,877	\$28,903,100
NET COST TO THE COUNTY	\$170,460,672	\$182,297,932	\$186,058,133	\$187,466,837
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	1593 / 1593	1593 / 1593	1593 / 1593	1594 / 1594

This department has 20/19.5 FTE Grant Positions in Fund 50000, Federal-State Grants.

# FY 2020 Funding Adjustments

The following funding adjustments from the <u>FY 2019 Adopted Budget Plan</u> are necessary to support the FY 2020 program.

## ♦ Employee Compensation

An increase of \$4,494,931 in Personnel Services includes \$1,789,418 for a 1.0 percent market rate adjustment (MRA) for all employees and \$212,369 for performance-based and longevity increases for non-uniformed merit employees, both effective July 2019, as well as \$2,493,144 for FY 2020 merit and longevity increases (including the full-year impact of FY 2019 increases) for uniformed employees awarded on the employees' anniversary dates.

\$4,494,931

\$2,028,925

## • Fire and Rescue Department Organizational Review

An increase of \$2,028,925 is associated with adjustments made following a review of the department's organizational structure and pay plan. The Board of Supervisors directed staff, with the assistance of an outside consultant, to provide analysis and develop recommendations related to uniformed Fire and Rescue Department salaries. An increase of \$719,419 is included to implement a recommendation

from the consultant study to provide greater consistency in the department's F-scale pay plan for uniformed personnel. In addition, an increase of \$1,309,506 is included to implement a recommendation to include the shift differential for 24-hour Fire and Rescue shifts in the base pay of uniformed personnel to align County pay practices for uniformed firefighters with those of other local jurisdictions. It is important to note that an increase of \$651,667 in Fringe Benefits funding is included in Agency 89, Employee Benefits, for a total cost of \$2,680,592 in FY 2020. For further information on Fringe Benefits, please refer to Agency 89, Employee Benefits, narrative in the Nondepartmental program area section of Volume 1.

## Department of Vehicle Services Charges

An increase of \$419,037 in Department of Vehicle Services charges is based on anticipated billings for maintenance and operating-related charges.

## Diversion First

An increase of \$114,931 and 1/1.0 FTE position is required to support the fourth year of the County's successful Diversion First initiative. Diversion First is a multiagency collaboration between the Police Department, Office of the Sheriff, Fire and Rescue Department, Fairfax County Court System, and the Fairfax-Falls Church Community Services Board to reduce the number of people with mental illness in the County jail by diverting low-risk offenders experiencing a mental health crisis to treatment rather than bring them to jail. This position will allow the Fire and Rescue Department to support diversion services at the Merrifield Crisis Response Center on a 24 hour per day, 7 days per week basis which is a foundational aspect of Diversion First and is recognized as a best practice in crisis intervention. It should be noted that an increase of \$56,300 in Fringe Benefits funding is included in Agency 89, Employee Benefits, for a total cost of \$171,231 in FY 2020. For further information on Fringe Benefits, please refer to the Agency 89, Employee Benefits, narrative in the Nondepartmental program area section of Volume 1.

## Position Adjustment

A decrease of \$64,310 is associated with the transfer of 1/1.0 FTE position to the Park Authority from the Fire and Rescue Department in FY 2019.

# Changes to FY 2019 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2019 Revised Budget Plan since passage of the <u>FY 2019 Adopted Budget Plan</u>. Included are all adjustments made as part of the FY 2018 Carryover Review, and all other approved changes through December 31, 2018.

## ◆ Carryover Adjustments

As part of the *FY 2018 Carryover Review*, the Board of Supervisors approved funding of \$5,226,587, including \$5,110,666 in encumbered funding in Operating Expenses and \$115,921 in unencumbered carryover in Operating Expenses to support costs associated with training and development requirements resulting from the findings in the department's Cultural Organizational Assessment Report.

## • Redirection of Positions

The County Executive approved the redirection of 1/1.0 FTE position to this agency to support workload requirements. In addition, 1/1.0 FTE position was transferred from this agency to the Park Authority.

## \$419,037

#### \$114,931

## (\$64,310)

#### \$5,226,587

## **\$0**

# **Cost Centers**

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

## **Bureau of the Fire Chief**

The Bureau 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 bureau also includes the department's Public Information Section, Life Safety Education Section and the Security Intelligence Liaison.

Catego	ry			FY 2019 Adopted	FY 2019 Revised	FY 2020 Advertised
EXPEN	DITURES					
Total E	xpenditures		\$1,432,847	\$1,484,186	\$1,429,986	\$1,461,948
AUTHO	RIZED POSITIONS/FULL-TIME	EQUIVALENT (	(FTE)			
Regu	ılar		10 / 10	10 / 10	8/8	8 / 8
1	Fire Chief	1	Public Safety Information Officer IV		Administrative As	
1 1	Deputy Fire Chief Battalion Chief	1 1	Public Safety Information Officer III Management Analyst II	1	Life Safety Educa	tion Specialist
-	L POSITIONS					
	itions / 8.0 FTE formed / 5 Civilian					

## **Operations Bureau**

The Operations Bureau is composed of the EMS Administration Division, the Field Operations Division, and the Special Operations 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 rotation shifts. Each shift is led by a Deputy Fire Chief. The County is separated geographically into seven battalions, each managed by a battalion management team of a Battalion Fire Chief and EMS Captain. Fire suppression personnel and paramedics work in tandem to ensure the highest level of safety and care for residents and visitors of Fairfax County.

	FY 2018	FY 2019	FY 2019	FY 2020
Category	Actual	Adopted	Revised	Advertised
EXPENDITURES				
Total Expenditures	\$158,834,994	\$167,267,248	\$167,282,922	\$173,305,691
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	1302 / 1302	1302 / 1302	1298 / 1298	1299 / 1299

1	Assistant Fire Chief	174	Lieutenants, 2 AP	1	Administrative Assistant IV
4	Deputy Fire Chiefs	561	Fire Technicians (1), 2 AP	1	Administrative Assistant III
25	Battalion Chiefs, 1 AP	387	Firefighters, 3 AP		
62	Captains II, 2 AP	1	Emergency Management Specialist III		
82	Captains I, 1 AP				
1,299 P	POSITIONS ositions (1) / 1,299.0 FTE (1.0) iniformed / 3 Civilian			()	es New Position s Alternative Placement Program

### **Business Services Bureau**

64 Uniformed / 141 Civilian

The Business Services Bureau consists of the Fire Prevention Division, the Fiscal Services Division, the Information Technology Division, the Planning Section and the Support Services Division. Business Services functions are critical to ensuring the Operations Bureau has the resources needed to respond to emergency incidents.

Cate	gory			Y 2019 dopted	FY 2019 Revised	FY 2020 Advertised
EXPE	NDITURES					
Total	Expenditures		\$22,830,020 \$	524,242,989	\$26,966,561	\$24,862,632
AUTH	ORIZED POSITIONS/FULL-TIME EQU	IVALEN	NT (FTE)			
Re	gular		204 / 204	204 / 204	205 / 205	205 / 205
1	Assistant Fire Chief	13	Engineers III	1	Fire Inspector IV	
2	Deputy Fire Chiefs	2	Financial Specialists IV	5	Fire Inspectors III	
5	Battalion Chiefs	5	Financial Specialists III	37	Fire Inspectors II	
5	Captains II	2	Financial Specialists II	1	Inventory Manager	
15	Captains I	2	Financial Specialists I	1	Instrumentation Tech	
12	Lieutenants	1	Internet/Intranet Architect III	1	Instrumentation Tech	
1	Fire Apparatus Supervisor	1	Internet/Intranet Architect II	1	Vehicle Maintenance	
2	Asst. Fire Apparatus Supervisors	1	Network/Telecom. Analyst III	1	Administrative Assista	
8	Fire Technicians	1	Network/Telecom. Analyst II	5	Administrative Assista	
16	Firefighters	3	Network/Telecom. Analysts I	5	Administrative Assista	
8	Fire Apparatus Mechanics	1	Programmer Analyst III	3	Administrative Assista	
1	IT Program Manager I	1	Business Analyst IV	2	Material Management	
2	Management Analysts IV	1	Business Analyst III	3	Material Management	
1	Management Analyst III	2	Business Analysts II	2	Material Management	
3 3	Management Analysts II	1	Emergency Management Specialist III	3	Engineering Technicia	
ა 1	Management Analysts I Engineer V	ן 1	Geographic Information Spatial Analyst		Material Management Truck Driver	Driver
1		2 3	Geographic Information Spatial Analysts	SII I	Truck Driver	
1	Engineer IV Data Analyst I	3 1	Code Specialists II Contract Analyst II			
I	Data Alidiyst I	I	Contract AlidiySt II			

### Personnel Services Bureau

The Personnel Services Bureau includes the Health, Safety & Wellness Division, the Human Resources Division, the Professional Standards Division, the Training 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, basic training, professional certifications and continuing education. They are responsible for occupational safety, health and wellness, payroll, and human resources functions.

			FY 2018	FY 2019	FY 2019	FY 2020
Catego	ory		Actual	Adopted	Revised	Advertised
EXPEN	DITURES					
Total E	xpenditures		\$16,008,212	\$16,382,000	\$18,923,541	\$16,739,666
AUTHO	RIZED POSITIONS/FULL-TIME		t (FTE)			
Regu	ular		77   77	77   77	82 / 82	82 / 82
1 3 6 11 15 2	Assistant Fire Chief Deputy Fire Chiefs Battalion Chiefs Captains II Captains I Lieutenants Fire Technicians	1 2 3 1 2 2 4	Human Resources Generalist IV Human Resources Generalists III Human Resources Generalists I Human Resources Generalists I Internal Affairs Investigator Management Analysts III Management Analysts I Management Analysts I Assistant Producer	1 Put 1 Bus 1 Adr 8 Adr 2 Adr 2 Adr 1 Fac	rse Practitioners/Ph blic Health Nurse III siness Analyst I ministrative Assistar ministrative Assistar ministrative Assistar ministrative Assistar cility Attendant II terial Management	nt V nts IV nts III nts II
82 Po	<u>L POSITIONS</u> sitions / 82.0 FTE iformed / 38 Civilian					

# **Key Performance Measures**

	Prior Year Actuals			Current Estimate	Future Estimate
Indicator	FY 2016 Actual	FY 2017 Actual	FY 2018 Estimate/Actual	FY 2019	FY 2020
Operations Bureau				<u> </u>	
Percent ALS transport units on scene within 9 minutes	89.63%	89.42%	90.00%/88.20%	90.00%	90.00%
AED response rate within 5 minutes	54.17%	56.06%	60.00%/55.81%	60.00%	60.00%
Total incidents responded to	97,204	101,326	100,000/103,926	103,000	103,000
Fire suppression response rate for the arrival of an engine company on a structure fire within 5 minutes and 20 seconds	50.69%	50.88%	52.00%/48.82%	52.00%	52.00%
Fire suppression response rate for 15 personnel within 9 minutes and 20 seconds	81.40%	82.18%	85.00%/79.02%	85.00%	85.00%
Percent of cardiac arrest patients arriving at the Emergency Department with a pulse <sup>1</sup>	40.2%	38.7%	40.0%/9.5%	40.0%	30.0%
Number of smoke alarms distributed and installed	3,908	1,870	1,800/391	0	NA
Number of File of Life used as resource in patient encounters	1,354	1,335	1,300/1,854	0	NA
Fire loss (millions)	\$14.9	\$14.7	\$16.0/\$27.2	\$16.0	\$16.0

	Prior Year Actuals			Current	Future	
Indicator	FY 2016 Actual	FY 2017 Actual	FY 2018 Estimate/Actual	Estimate FY 2019	Estimate FY 2020	
Operations Bureau	I					
Fire loss as percent of total property valuation	0.01%	0.01%	0.01%/0.60%	0.01%	0.01%	
Total civilian fire deaths	3	2	2/6	2	2	
Civilian fire deaths per 100,000 population	0.26	0.18	0.18/0.52	0.18	0.18	
Civilian fire-related burn injuries	22	6	15/20	15	15	
Civilian fire-related burn injuries per 100,000 population	1.9	0.5	1.3/1.8	1.3	1.3	
Business Services Bureau						
Preschool and kindergarten students served	23,746	25,024	25,000/10,572	20,000	20,000	
Senior citizens served	9,028	11,763	10,000/7,506	10,000	10,000	
Children (5 years and under) deaths due to fire	0	1	0/0	0	(	
Children (5 years and under) burn injuries	0	3	1/0	1		
Senior citizen (over age 60) deaths due to fire	2	1	1/5	1		
Senior citizen (over age 60) burn injuries	4	3	2/3	2		
Fire investigations conducted (including arson cases)	350	335	380/296	300	300	
Hazardous materials cases investigated	259	103	125/155	170	17(	
Fire inspection activities conducted	20,520	19,981	21,500/16,659	19,000	19,000	
Systems testing activities conducted	11,936	9,905	11,000/10,289	11,000	11,000	
Revenue generated for all inspection activities	\$5,252,496	\$5,042,863	\$5,158,559/\$7,378,543	\$6,846,300	\$6,940,38 <sup>2</sup>	
Percent of fire prevention services cost recovered	93.0%	94.4%	94.7%/123.3%	98.0%	95.0%	
Percent total fire investigation cases closed (fires, bombings, threats and arson)	87.1%	85.0%	85.0%/91.1%	90.0%	90.0%	
Percent arson cases closed	85.0%	61.0%	60.0%/41.0%	40.0%	40.0%	
Percent hazardous materials cases closed	85.0%	94.0%	95.0%/98.7%	95.0%	90.0%	
Total fire loss for commercial structures	\$1,813,000	\$2,639,547	\$2,000,000/\$3,800,000	\$2,000,000	\$2,000,000	
Transport billing (in millions)	\$19.9	\$21.2	\$20.2/\$21.3	\$20.8	\$20.8	
Personnel Services Bureau						
Volunteer operational hours	94,257	84,695	89,000/81,598	82,000	82,000	
Times volunteer-staffed emergency vehicles are placed in service annually	1,525	1,719	1,750/1,648	1,700	1,700	
Trained career firefighters added to workforce	78	76	85/66	50	65	

<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 30 percent of cardiac arrest patients to arrive at Emergency Departments with a pulse in FY 2020.

A complete list of performance measures can be viewed at <u>https://www.fairfaxcounty.gov/budget/fy-2020-advertised-performance-measures-pm</u>

# **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 outreach, and providing essential fire prevention and life safety education programs.

The objective of the department's Public Affairs/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 2018, the number of school age child care students (SACC) reached remained higher than estimated as a result of additional programs offered to children in the summer and at after school day-care programs. The number of preschool/kindergarten students and senior citizens reached was significantly lower than estimated as a result of a staff vacancy in the Life Safety Education section and fewer programs delivered to these high risk populations. The trend to educate more of the County's high risk populations on fire and life safety will continue in FY 2019 and FY 2020.

In FY 2018, Operations responded to 103,926 incidents and 54,361 patients were transported to local hospitals. In addition to deaths, burn injuries, and property loss from fires, the FRD initiated a new fire suppression outcome measure: total property value saved. In FY 2018, the total property value loss was \$27.2 million and the total property value saved from fire suppression activities was \$3.9 billion, which is 99.4 percent of the total property value.

FRD reports cardiac arrest outcomes using the Utstein template, the international standards 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. The strongest predictor of survival is the return of spontaneous circulation (ROSC), a pulse prior to arrival at a hospital. FRD's FY 2018 actual performance outcome based on CY 2017 data was 9.5 percent for those patients presenting in a shockable rhythm. In CY 2017, there were a total of 623 resuscitations attempted, only 63 met the Ustein criteria and only six of those patients arrived at an emergency department with a pulse. As reported by the Cardiac Arrest Registry to Enhance Survival (CARES) surveillance data, 26 percent of those who had prehospital ROSC survived their out of hospital cardiac arrest.

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 2018, the department met these standards, 48.8 percent and 79.0 percent of the time respectively. 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 2018, these response goals were met 88.2 percent and 55.8 percent of the time respectively. The department's goal is to improve response times to both fire and medical incidents through increased staffing and emergency vehicle pre-emption on traffic signals.

Fire Prevention Services activities are designed to minimize property loss in commercial (non-residential) fires through effective and comprehensive inspections that enforce all applicable codes. In FY 2018, the revenue collected from all inspection activities was higher than estimated. In addition, the average revenue generated per inspection/systems testing activity and the fire prevention cost recovery rate was significantly higher than estimated due to industry paying overtime rate. The FY 2018 commercial fire loss was \$3.8 million as a result of two significantly large commercial fire, a warehouse fire on Richmond Highway, and a bank fire in the Fair Lakes area. The FY 2019 and FY 2020 estimates for commercial fire losses remain at \$2.0 million.

The total number of inspections were down in FY 2018 due to several contributing factors such as vacancies and inspection complexity. The Fire Prevention Services Section carried several front-line inspector vacancies throughout FY 2018. Additionally, customer demand for fire protection systems acceptance testing has shifted from predominantly tenant build-out and retrofit work that requires one inspector for an hour or less per system test, to a team of two inspectors for multiple full workdays. This means a commensurate number of hours/revenue dollars are billed but fewer actual inspections are accomplished. Shell building new construction is more complex to test and witness floors of multiple fire alarm and sprinkler devices versus inspections of tenant build-outs or retrofits that move only a limited number of devices. It is anticipated this trend will continue and workload estimates have been revised to reflect this shift into new construction, especially in the Tysons and Reston submarkets.

Maintaining a well-trained fully staffed workforce is key to the department's ability to function. The Training Division graduated 66 career firefighters from two recruit schools during FY 2018. The total number of recruits enrolled in recruit schools is expected to remain constant to meet projected staffing needs based on retirements, turnover, and growth.

As a result of the Volunteer SAFER Recruitment and Retention grant awarded in 2011, volunteer departments have continued to experience growth in total membership. The average number of years that volunteers remain active is about five years. In FY 2017 and FY 2018, the number of operational volunteers declined which resulted in a significant decrease in the total number of volunteer operational hours and a decrease in the number of times volunteer units were placed in service in FY 2018. In FY 2019, the Board of Supervisors increased the department budget by \$100,000 to support the volunteer fire department with recruitment and retention efforts.