

# Fire and Rescue Department

## FY 2018 Adopted Budget Plan: Performance Measures

### Business Service Bureau and 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 25,000 or more preschool and kindergarten students, 8,000 students enrolled in the Fairfax County School-Age Child Care program, and 8,000 or more senior citizens, in order to approach a fire death rate of zero and a burn injury total of 3 or less.

#### Performance Indicators

| Indicator   | Prior Year Actuals |                |                         | Current Estimate | Future Estimate |
|---|--------------------|----------------|-------------------------|------------------|-----------------|
|   | FY 2014 Actual     | FY 2015 Actual | FY 2016 Estimate/Actual | FY 2017          | FY 2018         |
| <b>Output</b>   |                    |                |                         |                  |                 |
| Preschool and kindergarten students served                | 26,223             | 23,260         | 25,000 / 23,746         | 25,000           | 25,000          |
| Senior citizens served                                    | 9,479              | 7,810          | 9,000 / 9,028           | 8,000            | 8,000           |
| School age child care students (SACC) served              | NA                 | 9,166          | 8,000 / 19,832          | 15,000           | 15,000          |
| <b>Efficiency</b>   |                    |                |                         |                  |                 |
| Cost per high risk citizen served                         | \$5.58             | \$7.60         | \$7.54 / \$6.47         | \$7.14           | \$7.25          |
| <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              | 1 / 0                   | 1                | 1               |
| Senior citizen (over age 60) deaths due to fire           | 2                  | 0              | 0 / 2                   | 0                | 0               |
| Senior citizen (over age 60) burn injuries                | 3                  | 1              | 2 / 4                   | 2                | 2               |

In FY 2015, the cost per high risk citizen served increased because additional items (i.e. fire and life safety pamphlets and fire hats) were purchased for field personnel to distribute in their community outreach activities. This trend will continue in FY 2016 and FY 2017.

# Fire and Rescue Department

## FY 2018 Adopted Budget Plan: Performance Measures

---

### Fire Prevention

#### 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 60 percent of arson cases within a year.

#### Performance Indicators

| Indicator  | Prior Year Actuals |                |                         | Current Estimate | Future Estimate |
|--|--------------------|----------------|-------------------------|------------------|-----------------|
|  | FY 2014 Actual     | FY 2015 Actual | FY 2016 Estimate/Actual | FY 2017          | FY 2018         |
| <b>Output</b>  |                    |                |                         |                  |                 |
| Fire investigations conducted (including arson cases)                              | 283                | 386            | 405 / 350               | 375              | 400             |
| Arson investigations conducted   | 70                 | 37             | 42 / 60                 | 50               | 50              |
| Hazardous materials cases investigated   | 269                | 258            | 400 / 259               | 225              | 250             |
| <b>Efficiency</b>  |                    |                |                         |                  |                 |
| Average fire and hazardous materials cases per investigator                        | 46.0               | 56.0           | 67.0 / 75.0             | 75.0             | 75.0            |
| <b>Service Quality</b>   |                    |                |                         |                  |                 |
| Percent of cases that peer reviewed by a Case Manager                              | 97.1%              | 95.0%          | 95.0% / 95.0%           | 95.0%            | 95.0%           |
| <b>Outcome</b>   |                    |                |                         |                  |                 |
| Percent total fire investigation cases closed (fires, bombings, threats and arson) | 77.3%              | 89.4%          | 85.0% / 87.1%           | 85.0%            | 85.0%           |
| Percent arson cases closed   | 40.0%              | 64.8%          | 50.0% / 85.0%           | 60.0%            | 60.0%           |
| Percent hazardous materials cases closed   | 94.0%              | 91.8%          | 85.0% / 85.0%           | 85.0%            | 95.0%           |

# Fire and Rescue Department

## FY 2018 Adopted 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 90.0 percent of all fire prevention services costs per year.

### Performance Indicators

| Indicator   | Prior Year Actuals |                |                           | Current Estimate | Future Estimate |
|---|--------------------|----------------|---------------------------|------------------|-----------------|
|   | FY 2014 Actual     | FY 2015 Actual | FY 2016 Estimate/Actual   | FY 2017          | FY 2018         |
| <b>Output</b>   |                    |                |                           |                  |                 |
| Fire inspection activities conducted                              | 21,920             | 20,942         | 21,000 / 20,520           | 21,500           | 21,500          |
| Systems testing activities conducted                              | 15,097             | 15,954         | 16,500 / 11,936           | 11,000           | 11,000          |
| Revenue generated for all inspection activities                   | \$4,344,776        | \$4,996,109    | \$5,591,359 / \$5,252,496 | \$5,365,000      | \$5,365,000     |
| <b>Efficiency</b>   |                    |                |                           |                  |                 |
| Net cost per inspection (revenues in excess of average cost)      | \$19.51            | (\$0.40)       | (\$0.54) / \$11.93        | \$16.92          | \$25.76         |
| Average revenue generated per inspection/systems testing activity | \$117.37           | \$135.41       | \$149.10 / \$161.83       | \$165.08         | \$165.08        |
| <b>Service Quality</b>  |                    |                |                           |                  |                 |
| Percent of fire prevention services cost recovered                | 85.8%              | 100.0%         | 100.0% / 93.0%            | 90.7%            | 90.0%           |
| <b>Outcome</b>  |                    |                |                           |                  |                 |
| Total fire loss for commercial structures                         | \$1,050,700        | \$3,922,538    | \$2,000,000 / \$1,813,000 | \$2,000,000      | \$2,000,000     |

Fire Marshal Fees were raised mid-FY 2015 by approximately 20%. FY2017 and FY2018 revenue projections for the inspections service area (not including engineering plans review) have been revised to reflect current staffing models, position vacancy rates and workload indicators.

FY2016 total number of inspections were down due to several contributing factors: vacancies, shell construction of new buildings vs. tenant work, and loss of AP positions that were front line inspections staff. Shell construction of new buildings will bill a commensurate number of hours, however, fewer inspections are performed because they are more complicated, require two inspectors and take more time to perform. Tenant work requires one inspector for shorter periods of time (usually one hour or less). The workload has been adjusted in FY2017 and FY2018 to reflect the switch in construction demand from tenant work to shell construction of new buildings. It is anticipated that revenue levels will remain approximately the same.

Staff anticipates an increase of hazardous materials releases reported due to reporting requirements under the County's new Municipal Separate Storm Sewer System (MS4) permit language. Training will heighten County staff's awareness to releases of hazmat that have gone unreported in the past. All releases, even parking lot stains, will be required to be reported. Staff anticipates a continued increase in workload to handle small release notifications during FY2017 and FY2018. The new permit was issued 4-1-15 by Virginia DEQ.

The Investigations service area switched to a new record management system called HEATS that was developed by County IT to capture data regarding fire and hazmat investigations. The database is still under development, and the hazmat module has not been fully developed. FY2016 actuals reflect only 9 months worth of data that is contained in the database that went live in late September 2015. It is anticipated that County DIT will finish programming the remaining modules of the HEATS system (hazmat, accelerant canine and training) some time in calendar year 2017.

# Fire and Rescue Department

## FY 2018 Adopted Budget Plan: Performance Measures

---

### Operations Division

#### 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 40 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  | Prior Year Actuals |                |                         | Current Estimate | Future Estimate |
|--|--------------------|----------------|-------------------------|------------------|-----------------|
|  | FY 2014 Actual     | FY 2015 Actual | FY 2016 Estimate/Actual | FY 2017          | FY 2018         |
| <b>Output</b>  |                    |                |                         |                  |                 |
| Patients transported   | 48,966             | 51,425         | 50,000 / 52,415         | 53,000           | 53,500          |
| <b>Service Quality</b>   |                    |                |                         |                  |                 |
| ALS transport units on scene within 9 minutes (National Standard 90%)                            | 89.10%             | 89.95%         | 90.00% / 89.63%         | 90.00%           | 90.00%          |
| AED response rate within 5 minutes (National Standard 90%)                                       | 56.37%             | 54.57%         | 60.00% / 54.17%         | 60.00%           | 60.00%          |
| <b>Outcome</b>   |                    |                |                         |                  |                 |
| Cardiac arrest patients arriving at the Emergency Department with a pulse (National Average 21%) | 55.9%              | 58.5%          | 30.0% / 40.2%           | 40.0%            | 40.0%           |

# Fire and Rescue Department

## FY 2018 Adopted 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  | Prior Year Actuals |                |                         | Current Estimate | Future Estimate |
|--|--------------------|----------------|-------------------------|------------------|-----------------|
|  | FY 2014 Actual     | FY 2015 Actual | FY 2016 Estimate/Actual | FY 2017          | FY 2018         |
| <b>Output</b>  |                    |                |                         |                  |                 |
| Total incidents responded to   | 91,308             | 95,364         | 95,000 / 97,204         | 97,000           | 97,000          |
| <b>Efficiency</b>  |                    |                |                         |                  |                 |
| Cost per suppression and EMS incident  | \$2,275            | \$2,296        | \$2,417 / \$2,345       | \$2,511          | \$2,566         |
| <b>Service Quality</b>   |                    |                |                         |                  |                 |
| Fire suppression response rate for arrival of an engine company within 5 minutes, 20 seconds (National Standard 90%) | 53.00%             | 51.90%         | 54.00% / 50.69%         | 52.00%           | 52.00%          |
| Fire suppression response rate for 15 personnel within 9 minutes, 20 seconds (National Standard 90%)                 | 87.20%             | 83.18%         | 88.00% / 81.40%         | 85.00%           | 85.00%          |
| <b>Outcome</b>   |                    |                |                         |                  |                 |
| Fire loss (millions)   | \$12.3             | \$15.9         | \$16.0 / \$14.9         | \$16.0           | \$16.0          |
| Civilian fire deaths per 100,000 population  | 0.50               | 0.17           | 0.50 / 2.70             | 0.50             | 0.50            |
| Fire loss as percent of total property valuation   | 0.01%              | 0.01%          | 0.01% / 0.01%           | 0.01%            | 0.01%           |
| Total civilian fire deaths   | 6                  | 2              | 5 / 3                   | 5                | 5               |
| Civilian fire-related burn injuries  | 25                 | 18             | 25 / 22                 | 25               | 25              |
| Civilian fire-related burn injuries per 100,000 population   | 2.5                | 1.6            | 2.5 / 2.2               | 2.5              | 2.5             |

# Fire and Rescue Department

## FY 2018 Adopted 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  | Prior Year Actuals |                |                         | Current Estimate | Future Estimate |
|--|--------------------|----------------|-------------------------|------------------|-----------------|
|  | FY 2014 Actual     | FY 2015 Actual | FY 2016 Estimate/Actual | FY 2017          | FY 2018         |
| <b>Output</b>  |                    |                |                         |                  |                 |
| Time spent on SIOC/WIOC activities                               | NA                 | 45,256         | 50,000 / 35,125         | 50,000           | 50,000          |
| <b>Efficiency</b>  |                    |                |                         |                  |                 |
| Cost of SIOC materials per single family home reached            | NA                 | \$3.25         | \$2.60 / \$1.26         | \$0.93           | \$0.97          |
| <b>Service Quality</b>   |                    |                |                         |                  |                 |
| Fire & Life Safety Information door hangers distributed to homes | NA                 | 34,076         | 37,500 / 30,418         | 35,000           | 35,000          |
| File of Life (FOLs) distributed.                                 | NA                 | 3,655          | 4,500 / 2,534           | 4,500            | 4,500           |
| <b>Outcome</b>   |                    |                |                         |                  |                 |
| Number of smoke alarms distributed and installed.                | NA                 | 5,711          | 6,000 / 3,908           | 6,000            | 6,000           |
| No. of FOLs used as resource in patient encounters.              | NA                 | 1,543          | 1,000 / 1,354           | 1,000            | 1,000           |

In FY 2016, the number of residential single family homes reached is lower than estimated since SIOC/WIOC activities were suspended during the WPF. This also resulted in lower than estimated distribution of Fire & Life Safety door hangers, FOLs as well as number of smoke alarms installed. The cost of SIOC/WIOC materials per single family home reached decreased due to a large number of smoke alarms purchased through grant funding and other materials (door hangers and FOLs) that were left over from the previous year.

# Fire and Rescue Department

## FY 2018 Adopted Budget Plan: Performance Measures

---

### Volunteer Liaison

#### Objective

To obtain an amount of 95,000 direct volunteer service hours, achieving sufficient volunteer staffing so that volunteer-staffed emergency vehicles can be placed in service at least 1,500 times annually.

#### Performance Indicators

| Indicator   | Prior Year Actuals |                |                         | Current Estimate | Future Estimate |
|---|--------------------|----------------|-------------------------|------------------|-----------------|
|   | FY 2014 Actual     | FY 2015 Actual | FY 2016 Estimate/Actual | FY 2017          | FY 2018         |
| <b>Output</b>   |                    |                |                         |                  |                 |
| Volunteer operational hours   | 97,829             | 87,768         | 90,000 / 94,257         | 95,000           | 95,000          |
| Volunteer emergency vehicles available for staffing                       | 23                 | 23             | 23 / 24                 | 24               | 24              |
| <b>Efficiency</b>   |                    |                |                         |                  |                 |
| Average operational service hours per volunteer                           | 272.0              | 275.0          | 280.0 / 255.0           | 271.0            | 271.0           |
| Average number of volunteer-staffed emergency vehicles in service per day | 4.8                | 4.2            | 4.8 / 4.2               | 4.6              | 4.7             |
| <b>Service Quality</b>  |                    |                |                         |                  |                 |
| Percent of volunteer candidates who complete firefighter training         | 85%                | 88%            | 85% / 85%               | 85%              | 85%             |
| Percent of new volunteers who are active in VFD at end of one year        | 65%                | 84%            | 70% / 78%               | 80%              | 80%             |
| <b>Outcome</b>  |                    |                |                         |                  |                 |
| Times volunteer-staffed emergency vehicles are placed in service annually | 1,739              | 1,520          | 1,650 / 1,525           | 1,678            | 1,716           |
| Percent change in volunteer operational service hours                     | 1%                 | (10%)          | 3% / 7%                 | 2%               | 1               |

# Fire and Rescue Department

## FY 2018 Adopted 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 an 91 percent graduation rate, adding qualified personnel as required to meet current and future operational staffing requirements.

#### Performance Indicators

| Indicator                                      | Prior Year Actuals |                |                         | Current Estimate | Future Estimate |
|--|--------------------|----------------|-------------------------|------------------|-----------------|
|  | FY 2014 Actual     | FY 2015 Actual | FY 2016 Estimate/Actual | FY 2017          | FY 2018         |
| <b>Output</b>                                  |                    |                |                         |                  |                 |
| Recruit schools started                        | 2                  | 2              | 2 / 2                   | 2                | 2               |
| Career recruits enrolled                       | 71                 | 93             | 80 / 78                 | 95               | 90              |
| <b>Efficiency</b>                              |                    |                |                         |                  |                 |
| Operating cost per career recruit              | \$68,133           | \$62,444       | \$72,857 / \$73,491     | \$71,837         | \$79,257        |
| <b>Service Quality</b>                         |                    |                |                         |                  |                 |
| Percent of recruit firefighters graduating     | 83%                | 87%            | 91% / 89%               | 91%              | 91%             |
| <b>Outcome</b>                                 |                    |                |                         |                  |                 |
| Trained career firefighters added to workforce | 84                 | 81             | 80 / 78                 | 90               | 90              |

The Training Division continues consecutive schools which overlap the fiscal years, with each school being 24 - 26 weeks in length.

# Fire and Rescue Department

## FY 2018 Adopted 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 \$19.0 million.

#### Performance Indicators

| Indicator  | Prior Year Actuals |                 |                         | Current Estimate | Future Estimate |
|--|--------------------|-----------------|-------------------------|------------------|-----------------|
|  | FY 2014 Actual     | FY 2015 Actual  | FY 2016 Estimate/Actual | FY 2017          | FY 2018         |
| <b>Output</b>  |                    |                 |                         |                  |                 |
| Bills processed  | 49,003             | 49,003 / 50,692 | 50,692 / 52,962         | 52,962           | 52,962          |
| <b>Efficiency</b>  |                    |                 |                         |                  |                 |
| Program costs as a percentage of revenue                         | 5.5%               | 5.5% / 5.5%     | 5.5% / 7.0%             | 7.0%             | 7.0%            |
| <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)                   | \$16.6             | \$17.6 / \$17.6 | \$17.9 / \$19.9         | \$19.0           | \$19.0          |