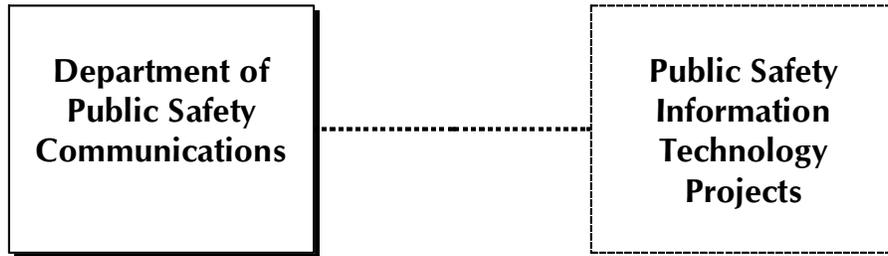


## Fund 120 E-911



### **Mission**

To provide professional, responsive emergency and non-emergency communication services and coordination of the countywide 911 system to the citizens of Fairfax County, Fairfax City, Town of Herndon, Town of Vienna and to County public safety agencies in a stable and supportive work environment that utilizes well trained and qualified staff. To deliver emergency and non-emergency communications by ensuring that public safety information technology systems are cost effective, sustainable, reliable, technologically innovative, and support the needs of the users and the community.

### **Focus**

The activities and programs in Fund 120, E-911 provide support to the operations of both Agency 95, Department of Public Safety Communications and various public safety information technology projects. The Department of Public Safety Communications provides an emergency point of contact for all E-911 calls in the County as well as Fairfax City and the Towns of Herndon and Vienna. As part of that function it provides the emergency dispatch of police, fire and rescue units. It also provides emergency medical dispatch (EMD). This is a medical intervention program that provides emergency medical instructions by phone until emergency services arrive on the scene. The Department provides critical incident management services to County agencies and responds to all commercial and residential alarm calls. Non-emergency services provided include responding to police non-emergency calls received on the 703-691-2131 phone line; reporting of Tow-Ins; and calls that ultimately get routed to Animal Control for resolution. The Department also provides teletype operations related to property (e.g., stolen guns and vehicles), people (e.g., protective orders and missing persons), events (e.g., fatal accidents), and queries (e.g., warrant confirmation). These operations ensure information is shared with the appropriate authorities within the County and on a regional, state and federal level. Another support operation provided by the Department is the production of E-911 audio tapes based on requests, such as for evidence in court.

Fund 120, E-911 recognizes revenue from estimated E-911 fees and Commonwealth reimbursement associated with Wireless E-911. A General Fund Transfer supports any difference between revenues and expenditures.

### *Department of Public Safety Communications*

In FY 2005, the County identified several operational issues within the existing Public Safety Communication Center (PSCC). Expenditure patterns reflected the continued dependence upon overtime to offset large vacancy and turnover rates. In addition, the call volume for both emergency and non-emergency phone lines was stretching the capacity of the Center to maintain an acceptable level of performance in the time it took to answer calls, resulting in longer wait times before calls were answered. Perceptions of low morale across the workforce, and heavy turnover of newly hired and experienced staff was also occurring.

One effort to mitigate these issues included the addition of 14/14.0 SYE Public Safety Communicators III and 2/2.0 SYE Administrative Assistants I in FY 2005. This was intended to be the first year of a multi-year plan to increase positions to keep up with increasing emergency and non-emergency call volumes. The Public Safety Communicators III were provided to increase staffing for the 1.1 million calls received by the PSCC annually. During FY 2004, call statistics indicate that while the average speed to answer an emergency call was 6 seconds, the PSCC was only able to answer 86 percent of calls within 12 seconds and the remaining

## Fund 120

### E-911

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14 percent of calls were subject to much longer wait times. The addition of the 14/14.0 SYE Public Safety Communicators added further capability to promptly answer the calls currently left unanswered or answered after an unacceptable wait. The Administrative Assistant I positions were provided to answer approximately 55,000 calls received annually regarding towed vehicles as required by the Commonwealth. Prior to this, Public Safety Communicators answered these routine calls. By shifting this responsibility to the Administrative Assistant I positions, Public Safety Communicators can focus more on emergency and non-emergency call taking and dispatching.

Another effort to mitigate the above issues was to review recruitment and retention at the PSCC. In the last four years, over one hundred Public Safety Communicators have been separated for various reasons including failed training, transfers within Fairfax County Police and Fire Departments, other employment, or relocation from the area. The current attrition rate for Public Safety and Communicators that perform call taking and call dispatch functions is over 50 percent.

The County, in cooperation with a private vendor, also began the work of reviewing existing public safety communications operations in FY 2005. This review, and the additional positions included in FY 2005, were the first steps towards building the system and structures necessary for a best practice agency that will operate out of the new Public Safety and Transportation Operations Center (PSTOC) scheduled to open in November 2007.

Major issues addressed in the FY 2005 review included: organizational placement of the PSCC within County government to ensure an effective representation of its broad public safety service role and broad client base; organizational leadership and management to both reframe the role of the Director position from a sworn officer in the Police Department chain of command structure to a civilian position who will work with additional management level staff to support and encourage innovation and improved efficiency and performance; operational and performance measurement to standardize the process for quality control and quality assurance, and to monitor a complex budget of multiple funding streams and the allocation of funds to the attainment of performance objectives; and recruitment and retention issues to overcome the difficulty of staff burn-out and over-reliance on overtime, to update outreach, application and assessment processes, and provide for ongoing learning and professional development activities.

As a result of this internal review of existing operations, a change plan was developed to provide a guiding framework for facilitating successful implementation of both current and future action steps. The reorganization of the existing Public Safety Communications Center is a first step in the change plan. In FY 2006, the Center will be moved from a division within the Police Department to independent agency status in Fund 120 as Agency 95, Department of Public Safety Communications. This agency will report to the Deputy County Executive, along with the other public safety agencies. A Client Advisory Board of Directors will also be established to promote and improve service levels to client agencies served by the Department.

In addition, there will be 11/11.0 SYE new positions added in FY 2006 to facilitate the operation as a new independent Department as well as address many of the organizational needs within the existing structure. The positions will provide the basis for implementing many of the action steps necessary to address the major issues noted above. These positions will enable human resource support for reengineering the recruitment program, redesigning the new hire program, and promoting programs to encourage retention; enhance the management structure to provide leadership in the areas of client services and call center operations; and allow for the development of business analyses to measure and monitor performance. As noted above, as the position changes are implemented, the need for additional front line staff will be reevaluated to determine if adequate staffing has been reached.

In FY 2006, the first-responder positions within the Department (primarily Public Safety Communicator positions performing call dispatch and call taking functions) are also being moved from the Fairfax County Employees' Retirement System to the Uniformed Retirement System, reflecting consistency within County public safety agencies for front line, first-responder staff. The Uniformed Retirement System is structured to compensate employees who daily perform first-responder functions in a high stress environment. This change

## Fund 120

### E-911

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in retirement system is a key part of immediately addressing both the recruitment and retention issues facing the center. All new hires into first-responder positions within the Department will be part of the Uniformed Retirement System, and existing first-responder staff will have the option of converting to that system.

Many of the other action steps in the change plan have already begun to be implemented, such as a new assessment examination process and expanded recruitment efforts, and additional actions are being proactively planned for FY 2006 as the Department prepares for its move to the new PSTOC.

#### Public Safety Information Technology Projects

In 1995, an IT project was established to replace and upgrade the County's Public Safety Communications Network (PSCN) and its components. The PSCN supports emergency communications of the Police Department, Fire and Rescue Department, and Office of the Sheriff. This includes public safety call taking (E-911, cellular E-911, and non-emergency), dispatching, and all affiliated communications support. Two of the major technologies utilized are a Computer Aided Dispatch (CAD) system with an integrated mobile data communications component and a wireless digital radio network for voice communications. The CAD system is used to dispatch appropriate equipment and personnel to events and emergencies and to communicate and track up-to-date information in a rapidly changing environment. The mobile data communications component of CAD allows the dispatch of resources with minimal voice communications, provides field units direct access to local, state, and national databases, and allows continuous contact with the Department of Public Safety Communications.

Installation of the radio network was completed and brought online in October 2000. Subsequent to the September 11, 2001 attacks, a reevaluation of the network determined that three additional tower sites needed to be added to ensure proper coverage to areas of the County that had grown more populous since the original propagation studies were completed. This expansion is underway and funded through a Homeland Defense grant.

In FY 2006 replacement of Operating Expenses and IT Projects expenditure requirements are increasing as the Public Safety Subscriber radios for the Department of Fire and Rescue need to be accelerated to maintain interoperability with neighboring jurisdictions. In addition, on-going operational funding is often necessary for maintenance and support of these IT Projects systems. Additionally, new projects are required to provide replacement and enhancement of existing systems and equipment. This is necessary to maintain performance, availability, reliability, and capacity for growth due to increases in County population and demand for public safety services. FY 2006 IT Project funding includes support for the replacement cycle of portable two-way radios (currently in use by the Police Department, Fire and Rescue Department and the Office of the Sheriff), continuation of the County's E-911 call answering system, continuation of the radio system upgrades, and system software design. The replacement and upgrade of these items is critical to the operation of the Public Safety Communications Network. IT Project funding reflects a prioritization of public safety communications needs. Continued future support for the PSCN's component systems and equipment is vital for ensuring immediate and systematic response to emergencies.

#### Revenues

In a countywide effort to continue to diversify revenue, the E-911 tax applied to eligible phone lines will be adjusted in FY 2006 to match the State approved maximum charge per line of \$3.00. This is an increase of \$0.50 from the existing rate of \$2.50 per line; the rate is expected to be effective September 1, 2005. The per line rate increase combined with recent declining number of eligible phone lines result in a FY 2006 revenue projection of \$19,855,915. It should be noted that this revenue is in addition to the General Fund monies used to support E-911 operations in the County. In order to fully cover all necessary FY 2006 expenditures without local, General Fund dollars would require an E-911 charge per line of \$4.99.

## Fund 120 E-911

### New Initiatives and Recent Accomplishments in Support of the Fairfax County Vision

|  <b>Maintaining Safe and Caring Communities</b>  | <b>Recent Success</b>               | <b>FY 2006 Initiative</b>           | <b>Cost Center</b>                            |
|---|-------------------------------------|-------------------------------------|---|
| Reorganize police call dispatch operations to have one dispatcher assigned to each police district station, supporting the increased demands for service and improving officer safety.  |                                     | <input checked="" type="checkbox"/> | Department of Public Safety Communications    |
| Installed a new trunked wireless digital voice communications system which consolidates all County public safety communications and improves coverage and reliability compared to the prior system. This system will provide capacity for growth for the next 20 years.   | <input checked="" type="checkbox"/> |                                     | Public Safety Information Technology Projects |
| Upgraded the current Computer Aided Dispatch software in 2003 to enhance the dispatch process for emergency response, with planned improvements to the Fire Incident Management System and interoperability with the Police Records Management System scheduled for FY 2006.  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Public Safety Information Technology Projects |
| Continue lease purchase payments for the wireless voice radio project and E-911 call answering system, both efforts resulting in better communication among public safety responders.   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Public Safety Information Technology Projects |
| Continue replacement cycle for portable and mobile public safety two-way radios used by the Police Department, Fire and Rescue Department, and Office of the Sheriff enabling interoperability with neighboring jurisdictions and providing critical hardware to the County's public safety emergency communications capabilities.  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Public Safety Information Technology Projects |
|  <b>Building Livable Spaces</b>  | <b>Recent Success</b>               | <b>FY 2006 Initiative</b>           | <b>Cost Center</b>                            |
| Continue planning and design phases of the development of the Public Safety and Transportation Operations Center (PSTOC) in collaboration with the Commonwealth of Virginia. Site infrastructure construction is scheduled to begin in Fall 2005, and construction of the facility will commence in Spring 2006. This site will house an enlarged County Public Safety Communications Center, a County Emergency Operations Center and a County Forensic Facility, as well as Virginia Department of Transportation (VDOT) Smart Traffic Center, VDOT Smart Traffic Signal System, and the Virginia State Police Dispatch Center. |                                     | <input checked="" type="checkbox"/> | Department of Public Safety Communications    |

## Fund 120 E-911

|  Exercising Corporate Stewardship                                       | Recent Success                      | FY 2006 Initiative                  | Cost Center                                |
|--|-------------------------------------|-------------------------------------|--|
| Continue to review public safety communication operations and implement necessary action steps to ensure a state-of-the-art, best practice organization. | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Department of Public Safety Communications |
| Implemented a new evaluation process for call taker and call dispatch applicants to ensure the best match possible prior to making a job offer.          | <input checked="" type="checkbox"/> |                                     | Department of Public Safety Communications |
| Continue to expand recruitment efforts, including joint outreach efforts with the Police Department, to maximize and leverage resources.                 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Department of Public Safety Communications |
| Develop a new community outreach program to enhance residents' awareness of 'who to call when.'  |                                     | <input checked="" type="checkbox"/> | Department of Public Safety Communications |

### Budget and Staff Resources

| Agency Summary                                |                     |                             |                             |                                |                             |
|---|---------------------|-----------------------------|-----------------------------|--------------------------------|-----------------------------|
| Category                                      | FY 2004 Actual      | FY 2005 Adopted Budget Plan | FY 2005 Revised Budget Plan | FY 2006 Advertised Budget Plan | FY 2006 Adopted Budget Plan |
| Authorized Positions/Staff Years <sup>1</sup> |                     |                             |                             |                                |                             |
| Regular                                       | 0/ 0                | 0/ 0                        | 0/ 0                        | 164/ 164                       | 164/ 164                    |
| Expenditures:                                 |                     |                             |                             |                                |                             |
| Personnel Services                            | \$12,406,201        | \$14,810,073                | \$13,794,612                | \$18,639,012                   | \$18,889,012                |
| Operating Expenses                            | 6,871,310           | 8,266,247                   | 10,015,547                  | 9,113,916                      | 9,113,916                   |
| Capital Equipment                             | 0                   | 0                           | 0                           | 0                              | 0                           |
| IT Projects                                   | 8,167,303           | 6,698,933                   | 10,975,780                  | 8,497,796                      | 8,497,796                   |
| <b>Subtotal</b>                               | <b>\$27,444,814</b> | <b>\$29,775,253</b>         | <b>\$34,785,939</b>         | <b>\$36,250,724</b>            | <b>\$36,500,724</b>         |
| Less:   |                     |                             |                             |                                |                             |
| Recovered Costs                               | \$0                 | \$0                         | \$0                         | \$0                            | \$0                         |
| <b>Total Expenditures</b>                     | <b>\$27,444,814</b> | <b>\$29,775,253</b>         | <b>\$34,785,939</b>         | <b>\$36,250,724</b>            | <b>\$36,500,724</b>         |

<sup>1</sup> Prior to FY 2006, all existing positions were reflected in the Public Safety Communications Center cost center in the Police Department.

# Fund 120

## E-911

### FY 2006 Funding Adjustments

The following funding adjustments from the FY 2005 Revised Budget Plan are necessary to support the FY 2006 program:

- ◆ **Employee Compensation** **\$479,167**  
A net increase of \$479,167 in Personnel Services including \$27,890 associated with salary adjustments to support the County's compensation program, and \$451,277 for a 3.07 percent market rate adjustment for employees on the public safety pay scales (C, F, O, and P), effective the first full pay period of FY 2006.
  
- ◆ **New Positions** **\$850,000**  
An increase of \$850,000 for 11/11.0 SYE new positions to support the structure necessary to resolve leadership, performance, recruitment and retention issues as well as independent agency status of Agency 95, Department of Public Safety Communications. This includes \$670,929 in Personnel Services and \$179,071 for Fringe Benefits.
  
- ◆ **Uniformed Retirement Conversion** **\$2,300,000**  
An increase of \$2,300,000 in Fringe Benefits associated with the conversion of Public Safety Communication Center first-responder staff from the Fairfax County Employees' Retirement System to the Uniformed Retirement System. In implementation of this action, existing employees who opt to move to the Uniformed Retirement System will be required to contribute to the conversion based on their salary and number of years of service. This conversion is in line with other County agencies emergency first-responder staffing.
  
- ◆ **Transfer of PSCC Baseline Funding from the Police Department** **\$573,966**  
An increase of \$573,966 including \$199,772 in Personnel Services and \$374,194 in Operating Expenses as a result of the reorganization of the PSCC from a division within the Police Department to independent agency status in Fund 120.
  
- ◆ **Public Service Communication Operating Expenses** **\$229,292**  
An increase of \$229,292 in Operating Expenses primarily associated with expenses for training and CAD maintenance.
  
- ◆ **Information Technology Operating Expenses** **\$244,183**  
An increase of \$244,183 associated with increasing telecommunications and repair costs.
  
- ◆ **Carryover Adjustments** **(\$733,839)**  
A decrease of \$733,839 in Operating expenditures for one-time purchases carried forward at the FY 2004 Carryover Review.
  
- ◆ **IT Projects** **\$8,497,796**  
Funding of \$8,497,796 has been included in IT Projects, including \$2,324,769 for the ninth year of a 10-year lease purchase payment for the wireless voice radio project; \$5,933,027 for the third year of a five-year replacement cycle for portable two-way radios in use by the Police Department, the Fire and Rescue Department, and the Office of the Sheriff; \$220,000 for the second year of a five-year lease payment obligation for the E-911 call answering system at the Public Safety Communications Center; and \$20,000 for software design applications. Details of specific projects are included on the Project Detail Table that follows.

## Fund 120 E-911

### Board of Supervisors' Adjustments

*The following funding adjustments reflect all changes to the FY 2006 Advertised Budget Plan, as approved by the Board of Supervisors on April 25, 2005:*

- ◆ **Fair Labor Standards Act (FLSA) Overtime Eligibility** **\$250,000**  
An increase of \$250,000 is associated with Senate Bill 873, which was adopted by the 2005 Virginia General Assembly. This bill extends overtime categories and guarantees overtime pay to eligible personnel for scheduled hours without regard to whether the employees actually work so long as they are in pay status.

### **Changes to FY 2005 Adopted Budget Plan**

*The following funding adjustments reflect all approved changes in the FY 2005 Revised Budget Plan since passage of the FY 2005 Adopted Budget Plan. Included are all adjustments made as part of the FY 2004 Carryover Review and all other approved changes through December 31, 2004:*

- ◆ **Carryover Adjustments** **\$733,839**  
As part of the FY 2004 Carryover Review, encumbrances of \$733,839 were carried forward into FY 2005. This includes \$21,590 for the Department of Human Resources study of the PSCC, \$632,249 in IT encumbrances for radio equipment and services, and \$80,000 for additional requirements for upgrading the Herndon and Vienna E-911 systems.
- ◆ **IT Projects** **\$4,276,847**  
As part of the FY 2004 Carryover Review, unexpended project balances of \$4,276,847 were carried forward into FY 2005 to complete current projects.

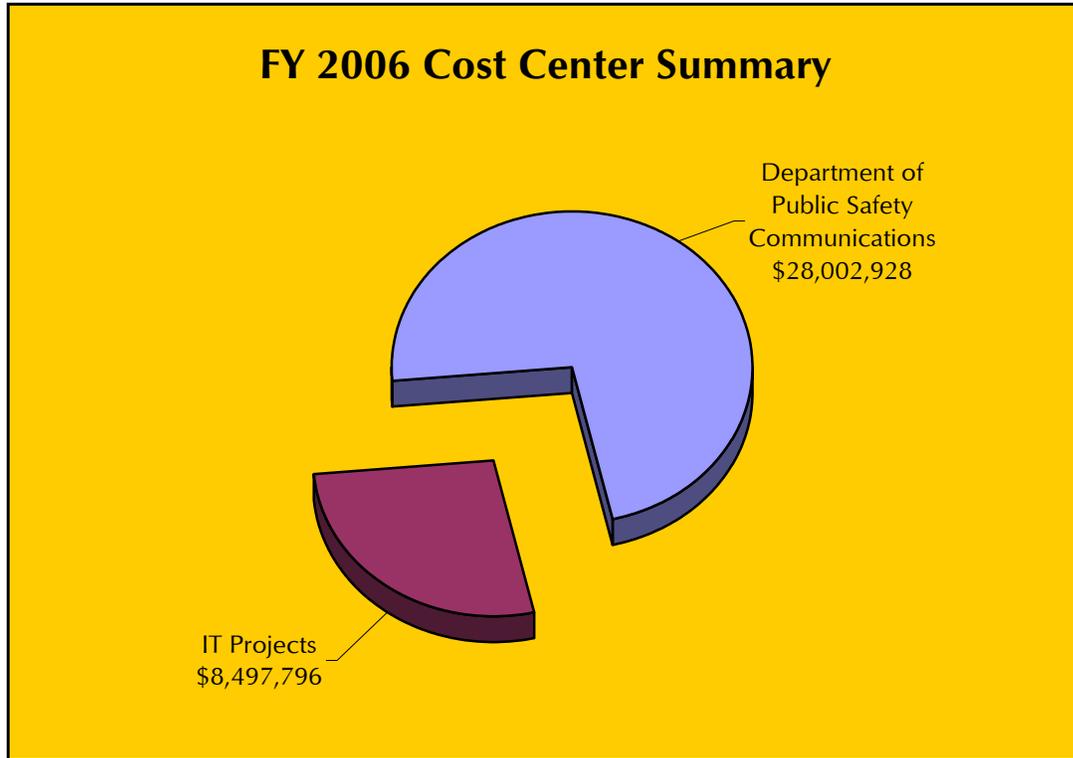
*The following funding adjustments reflect all approved changes to the FY 2005 Revised Budget Plan from January 1, 2005 through April 18, 2005. Included are all adjustments made as part of the FY 2005 Third Quarter Review:*

- ◆ The Board of Supervisors made no adjustments to this fund.

# Fund 120 E-911

## Cost Centers

The two cost centers of the Fund include the Department of Public Safety Communications and the Public Safety Information Technology Projects. Both programs work together to fulfill the mission of the Fund.



## Department of Public Safety Communications



| Funding Summary                  |                     |                                   |                                   |                                      |                                   |
|----------------------------------|---------------------|-----------------------------------|-----------------------------------|--------------------------------------|-----------------------------------|
| Category                         | FY 2004<br>Actual   | FY 2005<br>Adopted<br>Budget Plan | FY 2005<br>Revised<br>Budget Plan | FY 2006<br>Advertised<br>Budget Plan | FY 2006<br>Adopted<br>Budget Plan |
| Authorized Positions/Staff Years |                     |                                   |                                   |                                      |                                   |
| Regular                          | 0/0                 | 0/0                               | 0/0                               | 164/ 164                             | 164/ 164                          |
| <b>Total Expenditures</b>        | <b>\$19,277,511</b> | <b>\$23,076,320</b>               | <b>\$23,810,159</b>               | <b>\$27,752,928</b>                  | <b>\$28,002,928</b>               |

| Position Summary   |  |   |  |  |  |
|--|--|---|--|--|--|
| 1 Director (1)   | 1 Human Resources Specialist (1)           | 1 Policy Development and Legislation Specialist (1) |  |  |  |
| 3 Deputy Directors (3)   | 1 Administrative Operations Specialist (1) | 1 Management/Business Specialist (1)                |  |  |  |
| 1 Assistant Director (1T)  | 1 Emergency Operations Specialist (1)      | 1 Administrative Assistant IV (1T)                  |  |  |  |
| 4 PSC Squad Supervisors (4T)                                     | 1 Information Services Specialist (1)      | 1 Administrative Assistant III (1T)                 |  |  |  |
| 19 PSC Asst. Squad Supervisors (19T)                             | 1 Business Analyst III (1T)                | 2 Administrative Assistants I (2T)                  |  |  |  |
| 121 PSCs III (121T)  | 2 Geog. Info. Spatial Analysts I (2T)      | 1 Public Information Specialist (1)                 |  |  |  |
|  | 1 Public Safety Training Coordinator (1T)  |   |  |  |  |
| <b>TOTAL POSITIONS</b>   |  | ( ) denotes new position                            |  |  |  |
| <b>164 Positions / 164.0 Staff Years (11/11.0) (153/153.0 T)</b> |  | (T) denotes transferred position                    |  |  |  |

# Fund 120

## E-911

### Key Performance Measures

#### Goal

To provide the telecommunications necessary for the rapid dispatch of Police and Fire and Rescue units to the scene of citizen or other agency requests for assistance. To maintain effective command, control, communications, and information support for public safety field personnel required for the safe, orderly conduct of public safety activities 24 hours a day, 365 days a year.

#### Objectives

- ◆ To contribute to the prompt response of field personnel by dispatching emergency calls for services (Priority I-life threatening) within 0.6 minutes (average).
- ◆ To contribute to the prompt response of field personnel by dispatching emergency calls for services (Priority II-serious threat to property or public order) within 1.8 minutes (average).
- ◆ To contribute to the prompt and efficient response of field personnel by dispatching non-emergency calls for services (Priority III-threat to public safety or convenience) within 7.9 minutes (average).

| Indicator  | Prior Year Actuals |                |                         | Current Estimate | Future Estimate |
|--|--------------------|----------------|-------------------------|------------------|-----------------|
|  | FY 2002 Actual     | FY 2003 Actual | FY 2004 Estimate/Actual | FY 2005          | FY 2006         |
| <b>Output:</b>   |                    |                |                         |                  |                 |
| Calls received on emergency lines  | 614,409            | 543,159        | 551,306 / 541,967       | 542,000          | 542,000         |
| Calls received on non-emergency lines (1)  | 560,376            | 536,814        | 544,866 / 516,045       | 501,000          | 501,000         |
| <b>Efficiency:</b>   |                    |                |                         |                  |                 |
| Cost per call  | \$14.87            | \$12.79        | \$18.04 / \$17.84       | \$21.88          | \$21.63         |
| <b>Service Quality:</b>  |                    |                |                         |                  |                 |
| Average speed-to-answer emergency calls (in seconds)   | 6.0                | 6.0            | 5.0 / 6.0               | 5.0              | 5.0             |
| Average speed-to-answer non-emergency calls (in seconds)   | 28.0               | 37.0           | 42.0 / 55.0             | 50.0             | 50.0            |
| <b>Outcome:</b>  |                    |                |                         |                  |                 |
| PSCC dispatch time (in minutes) for Priority I: emergency/life threat                                  | 0.6                | 0.6            | 0.6 / 0.6               | 0.6              | 0.6             |
| PSCC dispatch time (in minutes) for Priority II: emergency/serious threat to property or public order  | 1.7                | 1.8            | 1.8 / 1.8               | 1.8              | 1.8             |
| PSCC dispatch time (in minutes) for Priority III: non-emergency/threat to public safety or convenience | 7.2                | 7.5            | 8.0 / 7.6               | 7.6              | 7.9             |

(1) On February 3, 2002, a new telephone system was installed in the PSCC. In the following months, it was determined that the old software had inflated the administrative call count by including administrative calls to PSCC supervisors, Uniformed Fire Officers and the Teletype Section calls as non-emergency calls for service. Prior year actual data, including "cost per call," have now been corrected. Emergency and non-emergency calls received by call-takers were not affected as they operate on a separate call distributor and accounting system, and so remain accurate.

## Fund 120

### E-911

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#### **Performance Measurement Results**

*(Note: The Police Department collects and reports performance data based upon calendar year rather than fiscal year. The Performance Measurement tables in each cost center therefore reflect calendar year information.)* The Public Safety Communications Center (PSCC) provides access to the public in need of assistance. The Police Department recognizes the need to provide quick response to the calls, and has sought to maintain and even lower average speed-to-answer such calls. The volume of calls decreased slightly in CY 2004, due in part to a reduction in false alarm calls produced by the False Alarm Reduction Unit, and because of a business process change wherein calls from towing companies are now faxed to PSCC. In CY 2004, the PSCC realized an increase in average speed-to-answer non-emergency calls to 55 seconds. This delay is primarily attributable to an increase in Priority I call processing time due to the implementation of Emergency Medical Dispatch protocols which require additional time with the caller to determine the most appropriate course of action and can impact the capacity of call takers to handle Priority II and III calls, and a less experienced pool of call takers due to attrition and the part-time use of police officers and fire fighters to process calls. In addition, the proportion of language line assisted calls also continues to increase, thus requiring call takers to spend more time gathering information before appropriate resources can be dispatched. Dispatch times for Priority I calls (emergency/life threatening) continued to remain stable at 0.6 minutes in CY 2004.

# Fund 120 E-911

## FUND STATEMENT

Fund Type G10, Special Revenue Funds

Fund 120, E-911

|   | FY 2004<br>Actual   | FY 2005<br>Adopted<br>Budget Plan | FY 2005<br>Revised<br>Budget Plan | FY 2006<br>Advertised<br>Budget Plan | FY 2006<br>Adopted<br>Budget Plan |
|---|---------------------|-----------------------------------|-----------------------------------|--------------------------------------|-----------------------------------|
| <b>Beginning Balance</b>                | <b>\$6,333,511</b>  | <b>\$0</b>                        | <b>\$5,010,686</b>                | <b>\$0</b>                           | <b>\$0</b>                        |
| Revenue:                                |                     |                                   |                                   |                                      |                                   |
| E-911 Fees <sup>1</sup>                 | \$16,898,495        | \$16,863,579                      | \$16,863,579                      | \$19,855,915                         | \$19,855,915                      |
| State Reimbursement<br>(Wireless E-911) | 2,848,448           | 3,067,630                         | 3,067,630                         | 2,848,448                            | 2,848,448                         |
| Interest Income                         | 51,103              | 88,175                            | 88,175                            | 51,103                               | 51,103                            |
| <b>Total Revenue</b>                    | <b>\$19,798,046</b> | <b>\$20,019,384</b>               | <b>\$20,019,384</b>               | <b>\$22,755,466</b>                  | <b>\$22,755,466</b>               |
| Transfer In:                            |                     |                                   |                                   |                                      |                                   |
| General Fund (001)                      | \$6,323,943         | \$9,755,869                       | \$9,755,869                       | \$13,495,258                         | \$13,745,258                      |
| <b>Total Transfer In</b>                | <b>\$6,323,943</b>  | <b>\$9,755,869</b>                | <b>\$9,755,869</b>                | <b>\$13,495,258</b>                  | <b>\$13,745,258</b>               |
| <b>Total Available</b>                  | <b>\$32,455,500</b> | <b>\$29,775,253</b>               | <b>\$34,785,939</b>               | <b>\$36,250,724</b>                  | <b>\$36,500,724</b>               |
| Expenditures:                           |                     |                                   |                                   |                                      |                                   |
| Personnel Services                      | \$12,406,201        | \$14,810,073                      | \$13,794,612                      | \$18,639,012                         | \$18,889,012                      |
| Operating Expenses                      | 6,871,310           | 8,266,247                         | 10,015,547                        | 9,113,916                            | 9,113,916                         |
| IT Projects                             | 8,167,303           | 6,698,933                         | 10,975,780                        | 8,497,796                            | 8,497,796                         |
| <b>Total Expenditures</b>               | <b>\$27,444,814</b> | <b>\$29,775,253</b>               | <b>\$34,785,939</b>               | <b>\$36,250,724</b>                  | <b>\$36,500,724</b>               |
| <b>Total Disbursements</b>              | <b>\$27,444,814</b> | <b>\$29,775,253</b>               | <b>\$34,785,939</b>               | <b>\$36,250,724</b>                  | <b>\$36,500,724</b>               |
| <b>Ending Balance<sup>2</sup></b>       | <b>\$5,010,686</b>  | <b>\$0</b>                        | <b>\$0</b>                        | <b>\$0</b>                           | <b>\$0</b>                        |

<sup>1</sup> The E-911 tax rate is increased from \$2.50 per line per month to \$3.00 per line per month on September 1, 2005.

<sup>2</sup> IT projects are budgeted based on the total project costs and most projects span multiple years. Therefore, funding for IT projects is carried forward each fiscal year, and ending balances fluctuate, reflecting the carryover of these funds.

## Fund 120 E-911

| IT0001                 | Public Safety Communications Network/Systems |                      |                             |                                |                             |              |
|------------------------|--|----------------------|-----------------------------|--------------------------------|-----------------------------|--------------|
| Total Project Estimate | Prior Year Expenditures                      | FY 2004 Expenditures | FY 2005 Revised Budget Plan | FY 2006 Advertised Budget Plan | FY 2006 Adopted Budget Plan | Future Years |
| TBD                    | \$39,146,949                                 | \$8,167,303          | \$10,975,780                | \$8,497,796                    | <b>\$8,497,796</b>          | TBD          |

This project was established in FY 1995 to replace and upgrade the County's critical Public Safety Communications Network (PSCN) and its component systems. The network's component systems are vital for ensuring immediate and systematic response to emergencies, and replacement and enhancement is necessary to maintain performance, availability, reliability, and capacity for growth due to increases in County population and demand for public safety services. The PSCN supports emergency communications of the Police, Fire and Rescue, and Sheriff's departments. This includes public safety call taking (E-911, Cellular E-911, non-emergency), dispatching, and all affiliated communications support. Two of the major technologies utilized are a Computer Aided Dispatch (CAD) system with an integrated mobile data communications component and a wireless digital radio network for voice communications.

The CAD system is used to dispatch appropriate equipment and personnel to events and emergencies and to communicate and track up-to-date information in a rapidly changing environment. The mobile data communications component of CAD allows the dispatch of resources with minimal voice communications, provides field units direct access to local, state, and national databases, and allows continuous contact with the Public Safety Communications Center (PSCC). As needed, this project provides funding for upgrades to the CAD and its mobile data communications component, originally implemented in 1986. The old systems were technologically obsolete, severely undersized, and at the end of their effective, supportable life cycle. Upgrades ensure continued reliable operation of these critical systems, incorporates software, hardware, and user functionality advances made since the 1980's, and allow for future migration in capability as new technologies emerge.

Migration to the new digital radio network is necessary to accommodate growing public safety voice communications requirements and to remedy performance, coverage, fragmentation, and reliability problems associated with an aging, technologically obsolete system at the very end of its sustainable life cycle. Deficiencies in the old system severely impeded critical communications and safety in emergency situations. The new trunked wireless digital voice communications system consolidates all County public safety voice communication and is designed to address coverage, reliability, and operational limitations of the old system used by public safety agencies in the County. It provides capacity for growth and enhancement for the next twenty years.

FY 2006 funding is included for: the ninth year of a ten-year lease-purchase payment for the wireless voice radio project (\$2,324,769); the second year lease purchase payment obligations of a five-year lease-purchase for the E-911 call-answering system at the PSCC (\$220,000); and to provide capacity for software design applications (\$20,000). Funding is also included for the third year of a five-year replacement cycle for the portable two-way radios currently in use by the Police Department, the Fire and Rescue Department, and the Office of the Sheriff (\$5,933,027). Both the two-way portable radios and the mobile computer terminals have a useful life of five years. All of these projects are critical to the County's public safety emergency communications capabilities.

**Return on Investment (ROI):** The return on investment for this project is realized by the performance, productivity, and effectiveness of public safety services in Fairfax County. Replaced and upgraded technology for these systems is critical to the safety of the public and the public safety personnel they support. Upgraded technology preserves the investments in technology that have been made and allow increased functionality, performance, and reliability to be achieved to facilitate responses to, and management of, emergencies. It mitigates the need for extraordinarily large additions of personnel that would be necessary to provide the same level of service and results without this technology. The increased access to important information, improvements to maintenance and reliability, increased capacity for growth, and enhanced functionality for users now and in the future builds upon past investments, responds to critical existing requirements, and sets the stage for the next generation of public safety communications technology.