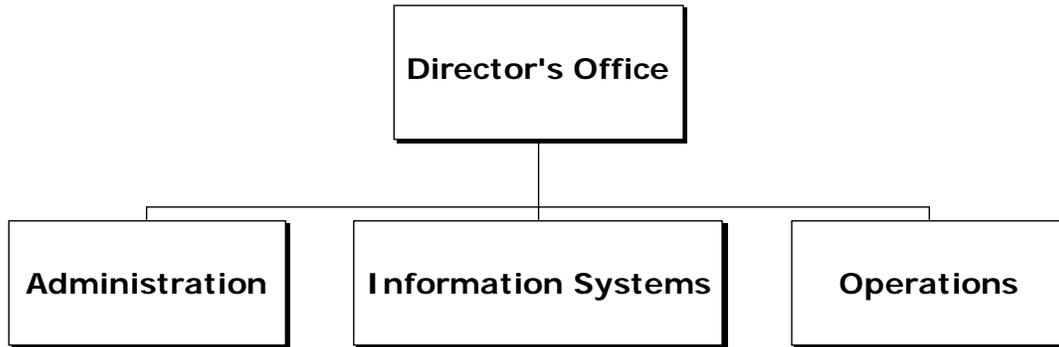


# Fund 40090 E-911



## Mission

To provide and maintain highly professional and responsive 9-1-1 emergency and non-emergency communication services to the citizens of Fairfax County, City of Fairfax, Town of Herndon, Town of Vienna, Fort Belvoir, citizens that work in and visit Fairfax County on a daily basis and to the Fairfax County Police, Fire & Rescue and Sheriff departments in a collaborative and supportive work environment that utilizes highly trained and qualified staff. To deliver emergency and non-emergency communications utilizing state-of-the-art technology through a variety of systems integrated to provide 9-1-1 telephone, computer aided dispatch, multi-channel trunked radio and wireless data networks in a cost effective, sustainable, reliable and technologically innovative manner; and, to utilize, industry accepted best policies, practices and standards in an efficient and cost effective manner.

<b>AGENCY DASHBOARD</b>			
Key Data	FY 2011	FY 2012	FY 2013
1. Emergency 9-1-1 Calls	570,506	562,194	564,321
2. Total Calls (combined 9-1-1, non-emergency and administrative)	1,046,637	1,035,167	1,049,187
3. Calls Requiring Language Line Interpretation	13,785	12,019	11,688
4. Police and Fire-Rescue Events Entered by DPSC Call takers/Dispatchers into CAD	472,865	481,625	470,243
5. Total Radio Transmissions Made to Police and Fire-Rescue Units	1,813,908	1,765,720	1,540,866
6. Number of CPR Calls That Required Lifesaving Instructions by Call Takers	1,295	1,376	1,486

# Fund 40090

## E-911

### Focus

The activities and programs in Fund 40090, E-911, provide support to the operations of the Department of Public Safety Communications (DPSC) and various other public safety information technology projects. DPSC is designated as the primary 9-1-1 Public Safety Answering Point (PSAP) for all 9-1-1 calls originating within Fairfax County as well as the city and towns therein. The agency also provides Emergency Medical Dispatch (EMD)/Pre-Arrival Instruction (PAI), which is an emergency medical service (EMS) intervention program where DPSC call takers provide emergency medical instructions over the telephone until fire-rescue-EMS

units arrive on the scene of an emergency incident. Due to the vital, mission-critical, and time sensitive service provided by DPSC personnel, they are, for many reasons, recognized as the "First of the First Responders." Additionally, DPSC receives all commercial and residential security, fire and medical alarm requests for service calls from private alarm service providers. Non-emergency services provided include responding to police non-emergency calls received; reporting of towed vehicles and private vehicle impounds; calls for Animal Control Unit services, a subsidiary of the Fairfax County Police Department (FCPD) resolution and non-emergency calls for service for fire

and rescue assistance and information. DPSC also provides National Crime Information Center (NCIC) and Virginia Criminal Information Network (VCIN) 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 security matters), and queries (e.g., wanted persons/warrant confirmation). These operations ensure that criminal and investigative information is shared with the appropriate authorities within the County and on a regional, state and federal level. Additionally, DPSC serves as the official custodian of approximately 8,700 hours of audio recordings of all telephone calls and radio traffic pertaining to public safety as required by law and approximately 88,000 hours of Computer Aided Dispatch (CAD) records. DPSC receives and responds to court subpoenas and Freedom of Information Act (FOIA) requests for audio transmissions and data records. Audio and data recordings are also maintained per national standards for investigative, quality assurance and training purposes.

#### The E-911 agency supports the following County Vision Elements:



**Maintaining Safe and Caring Communities**



**Creating a Culture of Engagement**



**Connecting People and Places**



**Maintaining Healthy Economies**



**Building Livable Spaces**



**Exercising Corporate Stewardship**

## Fund 40090 E-911

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### IT Projects

In FY 2015, IT Projects funding totals \$8.5 million, an increase of approximately \$3.9 million above the level of the FY 2014 Adopted Budget Plan. Funding is provided for four specific projects in FY 2015, as noted below. For detailed descriptions of each project, please see the project detail sheets which follow after the Fund 40090 Fund Statement:

- \$3,531,352 supports the second year of a lease purchase to replace the existing fleet of mobile and portable subscriber radios in public safety agencies to meet FCC requirements;
- \$1,616,200 is included to support Mobile Computer Terminal (MCT) replacement, a program that has been in effect for over 12 years and is designed to replace one-fifth of the public safety fleet each year;
- \$2,100,000 is included to begin a multi-phase effort to transition its core 9-1-1 services into a more robust and technologically up-to-date operating environment based on pending expiration of current Verizon contracts and limits of technology; and
- \$1,260,000 is included to begin implementation a five year plan to refresh and update the hardware/software environment that supports the CAD system which is the primary dispatch records system that is used 24/7/365 by DPSC call-takers to process all calls for service received on 9-1-1 and other emergency and non-emergency lines.

### Revenues

There are four main revenue categories in the E-911 Fund: Communications Sales and Use Tax (CSUT), State Wireless E-911 Revenue, Interest Income and Other Revenue (which reflects annual revenue from the City of Fairfax for dispatch services, FOIA fees, and reimbursement from Nextel to cover County expenses related to the Nextel 800 MHz re-banding initiative).

The Communication Sales and Use Tax (CSUT) is a statewide tax first implemented in January 2007, after the 2006 Virginia General Assembly session approved legislation that changed the way in which taxes are levied on communications services. Based on this legislation, local taxes on land line and wireless telephone services were replaced with a 5 percent statewide CSUT. In addition to the communications services previously taxed, the 5 percent CSUT applies to satellite television and radio services, internet calling and long-distance telephone charges. As part of this legislation, local E-911 fees were repealed and replaced with a statewide \$0.75 per line fee. These rates were meant to provide revenue neutrality with FY 2006 receipts. All communications taxes are remitted to the state for distribution to localities based on the locality's share of total statewide FY 2006 collections of these taxes. Based on analysis by the Virginia Auditor of Public Accounts, Fairfax County's share has been set at 18.93 percent. Based on various adjustments, Fairfax County share is currently 18.89 percent.

Of the total amount of the Communications Tax, the Cable Franchise Fees are directed to Fund 40030, Cable Communications. As a result of increasing requirements in Fund 40090, E-911, starting in FY 2015 Fairfax County is revising the methodology by which it applies the remaining revenues received through the CSUT. As a result, a larger proportion (approximately 65 percent) of these revenues will be applied to Fund 40090, with a commensurate decrease reflected in the proportion of CSUT revenues applied directly to the General Fund. This will eliminate the need for a General Fund Transfer to Fund 40090 and result in a projected FY 2015 CSUT revenue total for Fund 40090 of \$40.3 million. The prioritization of CSUT fees

# Fund 40090

## E-911

towards the E-911 fund reflects the increasing costs of this system based on staffing and technology requirements.

The Wireless E-911 Revenue category is derived from a monthly \$0.75 surcharge on all wireless/cellular telephones and is distributed to localities as part of the Wireless E-911 State Reimbursement. It should be noted that the Commonwealth has transferred approximately \$8 million from the Wireless E-911 fund to support non 9-1-1 matters in other state agencies.

Overall, the FY 2015 revenue estimate for Fund 40090, E-911 is \$45.0 million, reflecting an increase of \$23.54 million over the FY 2014 Adopted Budget Plan total. This is due primarily to the revised methodology noted above as well as increased Capital Projects and other expenditure requirements in the fund.

### Budget and Staff Resources

Category	FY 2013 Actual	FY 2014 Adopted	FY 2014 Revised	FY 2015 Advertised	FY 2015 Adopted
<b>FUNDING</b>					
Expenditures:					
Personnel Services	\$21,384,025	\$21,654,064	\$21,841,644	\$22,450,020	\$22,727,777
Operating Expenses	12,112,883	12,374,253	13,582,572	13,591,417	13,560,440
Capital Equipment	7,997	0	0	0	0
IT Projects	10,590,089	4,629,000	7,341,217	8,507,552	8,507,552
<b>Total Expenditures</b>	<b>\$44,094,994</b>	<b>\$38,657,317</b>	<b>\$42,765,433</b>	<b>\$44,548,989</b>	<b>\$44,795,769</b>
<b>AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)</b>					
Regular	205 / 205	205 / 205	205 / 205	205 / 205	205 / 205

### FY 2015 Funding Adjustments

The following funding adjustments from the FY 2014 Adopted Budget Plan are necessary to support the FY 2015 program. Included are all adjustments recommended by the County Executive that were approved by the Board of Supervisors, as well as any additional Board of Supervisors' actions, as approved in the adoption of the budget on April 29, 2014.

- ◆ **Employee Compensation** **\$573,713**  
 An increase of \$573,713 in Personnel Services includes \$280,801 for a 1.29 percent market rate adjustment (MRA) for all employees and \$30,977 for a 1.00 percent salary increase for non-uniformed employees, both effective July 2014, as well as \$261,935 for FY 2015 merit and longevity increases for uniformed employees (including the full-year impact of FY 2014 longevity) awarded on the employees' anniversary dates.
- ◆ **Personnel Services Adjustment** **\$500,000**  
 An increase of \$500,000 is included based on actual grade and step of existing staff and necessary to meet minimum staff coverage of this 24 hour facility. Prior-year reductions in Personnel Services necessary to reduce costs have proven to be unsustainable given staffing levels necessary to ensure adequate call taking and dispatch services based on the volume and complexity of the emergency calls received in the call center.

## Fund 40090 E-911

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- ◆ **Increased Operating Requirements** **\$1,125,164**

An increase of \$1,125,164 in Operating Expenses is included due primarily to increased maintenance related costs on the radio system infrastructure (antennas, console network, central electronics bank etc.) which supports the mobile voice radio communications network. A portion of these costs (approximately \$0.8 million) were covered under warranty in FY 2013 and are being covered in FY 2014 through the use of one-time funds carried over from previous years.
  
- ◆ **Ongoing Costs Associated with Satellite Based Phone Lines** **\$19,000**

An increase \$19,000 in Operating Expenses is included for ongoing maintenance and line costs associated with satellite based phone lines that provide an alternate method to contact the County's 9-1-1 center in the event the Verizon network is compromised as it was during the June 2012 Derecho event. Initial one-time installation costs were covered in FY 2014.
  
- ◆ **PC Replacement** **\$42,023**

An increase of \$42,023 is included for PC replacement charges to reflect both updated inventory counts and revised costs, primarily associated with licenses and software requirements, following the review of the PC Replacement Program conducted in FY 2014.
  
- ◆ **IT Projects** **\$8,507,552**

Funding of \$8,507,552 has been included IT Projects. Of this total, \$3,531,352 supports the replacement of the existing fleet of mobile and portable subscriber radios in public safety agencies, \$1,616,200 is included to support mobile computer terminal (MCT) replacement, a program that has been in effect for over 12 years and is designed to replace one-fifth of the public safety fleet each year, \$2,100,000 is included to begin a multi-phase effort to transition its core 9-1-1 services into a a more robust and technologically up-to-date operating environment, and \$1,260,000 is included to establish an ongoing replacement cycle for all the equipment that supports the computer aided dispatch (CAD) system.

### **Changes to FY 2014 Adopted Budget Plan**

*The following funding adjustments reflect all approved changes in the FY 2014 Revised Budget Plan since passage of the FY 2014 Adopted Budget Plan. Included are all adjustments made as part of the FY 2013 Carryover Review, FY 2014 Third Quarter Review, and all other approved changes through April 30, 2014.*

- ◆ **Carryover Adjustments** **\$4,108,116**

As part of the *FY 2013 Carryover Review*, the Board of Supervisors approved an increase of \$4,108,116, including \$187,580 in Personnel Services for a one-time compensation adjustment of \$850 for merit employees paid in November 2013. The remaining increase of \$3,920,536 included carryover of Information Technology (IT) projects, IT project encumbrances, and associated IT operating balances of \$2,745,009, encumbered carryover of \$1,135,527, and \$40,000 required for installation, maintenance and line costs of satellite based phone lines that provide an alternate method to contact the County's 9-1-1 center in the event the Verizon network is compromised as it was during the June 2012 Derecho event.

# Fund 40090 E-911

## Cost Centers

### Department of Public Safety Communications<sup>1</sup>

Category	FY 2013 Actual	FY 2014 Adopted	FY 2014 Revised	FY 2015 Advertised	FY 2015 Adopted
<b>EXPENDITURES</b>					
Total Expenditures	\$33,504,905	\$34,028,317	\$35,424,216	\$36,041,437	\$36,288,217
<b>AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)</b>					
Regular	205 / 205	205 / 205	205 / 205	205 / 205	205 / 205

<sup>1</sup> It should be noted that the Cost Center table does not include IT Projects-related funding. In FY 2015, this totals an amount of \$8,507,552

1 Director	2 Business Analysts IV	1 Human Resources Generalist III
2 Assistant Directors	1 Info. Tech. Program Manager I	1 Human Resources Generalist I
5 PSC Squad Supervisors	1 Management Analyst III	1 Geog. Info. Spatial Analyst III
20 PSC Asst. Squad Supervisors	2 Management Analysts II	1 Geog. Info. Spatial Analyst II
157 PSCs III	1 Financial Specialist III	1 Network/Telecomm Analyst II
1 Programmer Analyst III	1 Financial Specialist II	1 Administrative Assistant V
1 PSTOC General Manager	1 Financial Specialist I	2 Administrative Assistants IV
		1 Administrative Assistant III
<b>TOTAL POSITIONS</b>		
205 Positions / 205.0 FTE		

## Key Performance Measures

Indicator	Prior Year Actuals			Current Estimate	Future Estimate
	FY 2011 Actual	FY 2012 Actual	FY 2013 Estimate/Actual	FY 2014	FY 2015
<b>E-911</b>					
Percent 9-1-1 calls arriving at DPSC answered within 20 seconds	91%	93%	95%/94%	95%	95%
Percent 9-1-1 calls arriving at DPSC answered within 10 seconds	87%	91%	90%/92%	90%	90%

A complete list of performance measures can be viewed at [www.fairfaxcounty.gov/dmb/fy2015/adopted/pm/40090.pdf](http://www.fairfaxcounty.gov/dmb/fy2015/adopted/pm/40090.pdf)

## Performance Measurement Results

In FY 2013, with a 92 percent rate DPSC exceeded the National Emergency Number Association (NENA) standard of 90 percent of 9-1-1 calls answered within 10 seconds. However, a 94 percent rate did not meet the NENA standard of 95 percent of 9-1-1 calls answered within 20 seconds. While the agency did not meet both of its objective targets, it improved its performance in both objectives from FY 2012. The agency did not meet one of its objectives due to the persistent level of vacant staff positions experienced in FY 2013. The Department of Public Safety Communications (DPSC) anticipates making progress in meeting the NENA standard in FY 2014 and FY 2015 due to its continued progress in filling staff vacancies and training new public safety communicators.

# Fund 40090 E-911

## FUND STATEMENT

### Fund 40090, E-911

	FY 2013 Actual	FY 2014 Adopted Budget Plan	FY 2014 Revised Budget Plan	FY 2015 Advertised Budget Plan	FY 2015 Adopted Budget Plan
<b>Beginning Balance</b>	\$12,734,688	\$556,774	\$4,413,639	\$385,907	\$385,907
Revenue:					
Communications Sales and Use Tax <sup>1</sup>	\$16,813,968	\$16,800,000	\$16,800,000	\$40,013,082	\$40,346,530
State Reimbursement (Wireless E-911)	3,577,720	4,200,000	4,200,000	4,400,000	4,400,000
Other Revenue <sup>2</sup>	72,027	358,430	358,430	150,000	150,000
Interest Income	53,452	100,000	100,000	100,000	100,000
<b>Total Revenue</b>	<b>\$20,517,167</b>	<b>\$21,458,430</b>	<b>\$21,458,430</b>	<b>\$44,663,082</b>	<b>\$44,996,530</b>
Transfer In:					
General Fund (10001) <sup>1</sup>	\$15,256,778	\$17,051,691	\$17,279,271	\$0	\$0
<b>Total Transfer In</b>	<b>\$15,256,778</b>	<b>\$17,051,691</b>	<b>\$17,279,271</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Available</b>	<b>\$48,508,633</b>	<b>\$39,066,895</b>	<b>\$43,151,340</b>	<b>\$45,048,989</b>	<b>\$45,382,437</b>
Expenditures:					
Personnel Services	\$21,384,025	\$21,654,064	\$21,841,644	\$22,450,020	\$22,727,777
Operating Expenses	12,112,883	12,374,253	13,582,572	13,591,417	13,560,440
Capital Equipment	7,997	0	0	0	0
IT Projects	10,590,089	4,629,000	7,341,217	8,507,552	8,507,552
<b>Total Expenditures</b>	<b>\$44,094,994</b>	<b>\$38,657,317</b>	<b>\$42,765,433</b>	<b>\$44,548,989</b>	<b>\$44,795,769</b>
<b>Total Disbursements</b>	<b>\$44,094,994</b>	<b>\$38,657,317</b>	<b>\$42,765,433</b>	<b>\$44,548,989</b>	<b>\$44,795,769</b>
<b>Ending Balance<sup>3</sup></b>	<b>\$4,413,639</b>	<b>\$409,578</b>	<b>\$385,907</b>	<b>\$500,000</b>	<b>\$586,668</b>

<sup>1</sup> Starting in FY 2015, Fairfax County is revising the methodology by which it applies revenues received through the Communication Sales and Use Tax (CSUT). As a result, a larger proportion of these revenues will be applied to Fund 40090, E-911, with a commensurate decrease reflected in the proportion of CSUT revenues applied directly to the General Fund. This will eliminate the need for a General Fund Transfer to Fund 40090, E-911 and result in a projected FY 2015 CSUT revenue total for Fund 40090 of \$40.3 million.

<sup>2</sup> This revenue category includes annual revenue from the City of Fairfax for dispatch services, FOIA fees, and reimbursement from Nextel to cover County expenses related to the Nextel 800 MHz rebanding initiative.

<sup>3</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 40090 E-911

<b>2G70-056-000 – Public Safety Communications Wireless-Radio</b>	<b>IT Priorities:</b> <ul style="list-style-type: none"> <li>• Improved Service and Efficiency</li> <li>• Enhanced County Security</li> </ul>
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FY 2013 Expenditures	FY 2014 Revised Budget Plan	FY 2015 Advertised Budget	FY 2015 Adopted Budget
\$9,219,468	\$4,129,549	\$3,531,352	\$3,531,352

**Description and Justification:** This project was established in FY 1995 (along with Project 2G70-059-000) to replace and upgrade the County’s critical Public Safety Communications Network (PSCN) and its various 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 for the DPSC, Police, Fire and Rescue, and Sheriff’s departments. This includes public safety call taking (E-911, Cellular E-911, non-emergency calls for service), dispatching, and all affiliated communications support for public safety agencies.

This specific project supports the replacement of the existing fleet of mobile and portable subscriber radios in public safety agencies. The FCC has mandated that public safety radios must meet the 700 MHz narrowband requirement by the end of December 2016 (FY 2017). Fairfax County must comply in order to preserve regional interoperability currently in place as a result of Department of Homeland Security standards since 9-11. Replacement radios were purchased in mid FY 2014, and a funding schedule was developed using existing project balance in FY 2014 as a down payment, and then splitting the remaining total cost of \$24.7 million over seven years, starting in FY 2015.

**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.

## Fund 40090 E-911

<b>2G70-059-000 – Mobile Computer Terminal Replacement</b>	<b>IT Priorities:</b> <ul style="list-style-type: none"> <li>• Improved Service and Efficiency</li> <li>• Enhanced County Security</li> </ul>
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FY 2013 Expenditures	FY 2014 Revised Budget Plan	FY 2015 Advertised Budget	FY 2015 Adopted Budget
\$1,214,871	\$1,544,034	\$1,616,200	\$1,616,200

**Description and Justification:** This project was established in FY 1995 (along with Project 2G70-056-000) to replace and upgrade the County’s critical Public Safety Communications Network (PSCN) and its various 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 for the DPSC, Police, Fire and Rescue, and Sheriff’s departments. This includes public safety call taking (E-911, Cellular E-911, non-emergency calls for service), dispatching, and all affiliated communications support for public safety agencies.

This specific project provides funding of \$1,616,200 to support Mobile Computer Terminal (MCT) replacement, a program that has been in effect for over 12 years and is designed to replace one-fifth of the public safety fleet each year to keep technology fresh and usable into the foreseeable future. This equipment supports field personnel by granting them access to the CAD system, Virginia Criminal Information Network (VCIN), County Enterprise System, and a host of other remote databases required in the day-to-day performance of their position functions. This mandated functionality supports the DPSC, Police Department, Fire and Rescue Department and the Sheriff’s Office. Current equipment will not support existing public safety access to available remote systems due to a lack of connectivity ports and devices in the vehicle. If ports and additional power to connect devices to these units are not provided, a risk of non-compliance to regulation and an inability to access criminal information systems could occur. In recent years, docking stations that support connectivity of MCT units to the CAD and other systems have only been purchased on an as needed basis. Older units are breaking on a regular basis due to age and are rapidly becoming obsolete. This funding level (which includes \$16,200 software assurance costs for installed Microsoft products) will move towards accomplishing a complete replacement cycle with the updated technology needed to maintain a rapidly changing mobile fleet environment.

**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.

## Fund 40090 E-911

<b>3G70-078-000 – E-911 Telephony Platform Replacement</b>	<b>IT Priorities:</b> <ul style="list-style-type: none"> <li>• Improved Service and Efficiency</li> <li>• Enhanced County Security</li> <li>• Maintaining a Current and Supportable Technology Infrastructure</li> </ul>
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<b>FY 2013 Expenditures</b>	<b>FY 2014 Revised Budget Plan</b>	<b>FY 2015 Advertised Budget</b>	<b>FY 2015 Adopted Budget</b>
\$0	\$0	\$2,100,000	\$2,100,000

**Description and Justification:** The Fairfax County Public Safety Answering Point (PSAP) 9-1-1 network is operating on an end-of-life technology platform under a contract services arrangement with Verizon that expires January 1, 2015. Verizon has indicated it is not interested in continuing to dedicate its business resources (and by extension its subcontracted services and equipment with other vendors) on the current technology in the same manner it currently operates. As such, Fairfax County must begin a multi-phase effort to transition its core 9-1-1 services into a more robust and technologically up-to-date operating environment. Widespread adoption of rapidly advancing technologies like text, video, Voice over Internet Protocol (VoIP) and the saturation of high-speed broadband access has raised the expectations of 9-1-1 services for the citizens of Fairfax County. Improvements are needed to support new requirements and expectations. Eventually, these upgrades will allow the County to migrate to Next Generation 9-1-1 (NG9-1-1) as that technology matures. NG9-1-1 will provide the ability to accept multimedia data (e.g. text, video and photo) and improve interoperability, call routing, PSAP call overflow, and location accuracy. NG9-1-1 will strengthen system resiliency and reliability, as well as increase opportunities to potentially achieve fiscal and operational efficiency through cost-sharing arrangements.

An overview of 9-1-1 today with NG9-1-1 is shown below:

9-1-1 Today	Full NG9-1-1
Primarily voice calls via telephone handsets	Voice, text, or video information available from many different types of communication devices sent over IP networks
Most information transferred via voice	Advanced data sharing is automatically performed (e.g. telematics)
Callers to 9-1-1 routed through legacy selective routers, limited forwarding / backup ability	Enhanced backup capabilities provided as calls can be routed to different PSAP locations more dynamically (if required)
Routing is based on phone number / Master Street Address Guide (MSAG)	Ability to route "calls" more accurately (routing is based on GIS coordinates)

Funding of \$2.1 million is recommended in FY 2015 to begin this transition process. It is anticipated that this level of funding will be required through at least FY 2017 and then depending on the available NG9-1-1 technology at that future time, additional funds will likely be required.

## Fund 40090 E-911

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**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.

## Fund 40090 E-911

<b>3G70-079-000 – Public Safety CAD System Replacement</b>	<b>IT Priorities:</b> <ul style="list-style-type: none"> <li>• Improved Service and Efficiency</li> <li>• Enhanced County Security</li> <li>• Maintaining a Current and Supportable Technology Infrastructure</li> </ul>
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FY 2013 Expenditures	FY 2014 Revised Budget Plan	FY 2015 Advertised Budget	FY 2015 Adopted Budget
\$0	\$0	\$1,260,000	\$1,260,000

**Description and Justification:** Funding of \$1,260,000 is included to begin implementation a five year plan to refresh and update the hardware/software environment that supports the CAD system. Since most of the equipment was purchased in FY 2009, most of it has met and is now starting to exceed normal life expectancy. The CAD System supports all of Fairfax County Public Safety in their mission to keep Fairfax County and its citizens safe. The CAD System is the primary dispatch records system that is used 24/7/365 by DPSC call-takers to process all calls for service received on 9-1-1 and other emergency and non-emergency lines. With this system, they are able to efficiently process over 5,000 calls for service each day, and document each event with full details of the activities associated with the incident from the time the call is received to dispatch of the call and on through to unit arrival, clearing the call for service and then transfer of the information to the associated records management system where the responding unit(s) can retrieve data to complete an incident report.

Call information is downloaded to the CAD System, added comments are inserted and then the call for service is routed to the appropriate DPSC dispatcher(s) who then use the same CAD system to identify the closest appropriate field units for the event and dispatch and track those units responding to the event and documenting services provided. Through the use of the CAD System interfaces, users of the system have instant access to records from a diverse collection of other systems like Virginia Criminal Information Network (VCIN), National Crime Information Center (NCIC), Geographic Information Systems (GIS), Virginia Hospital & Healthcare Association (VHHA) status tracking system, agency specific Record Management Systems (RMS), Sheriff’s Information Management System (SIMS), to name a few. The field units can also use the CADs in their vehicles to provide them directions to any location within and immediately surrounding the County.

**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.