

Public Safety System Modernization -- No. 340901

Category
Subcategory
Administering Agency
Planning Area

General Government
County Offices and Other Improvements
County Executive
Countywide

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

December 08, 2010
No
None.
On-going

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY10	Rem. FY10	Total 6 Years	FY11	FY12	FY13	FY14	FY15	FY16	Beyond 6 Years
Planning, Design, and Supervision	3,266	0	0	3,266	925	945	895	501	0	0	0
Land	0	0	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	0	0	0	0	0	0	0	0	0	0	0
Construction	3,264	0	0	3,264	125	725	1,345	1,069	0	0	0
Other	45,979	2,947	96	42,936	20,936	11,000	11,000	0	0	0	0
Total	52,509	2,947	96	49,466	21,986	12,670	13,240	1,570	0	0	0

FUNDING SCHEDULE (\$000)

Federal Aid	3,343	2,947	96	300	300	0	0	0	0	0	0
G.O. Bonds	3,840	0	0	3,840	200	800	1,420	1,420	0	0	0
Short-Term Financing	45,326	0	0	45,326	21,486	11,870	11,820	150	0	0	0
Total	52,509	2,947	96	49,466	21,986	12,670	13,240	1,570	0	0	0

OPERATING BUDGET IMPACT (\$000)

Maintenance				2,408	48	0	680	500	680	500
Net Impact				2,408	48	0	680	500	680	500

DESCRIPTION

This project will provide for phased upgrades and modernization of computer aided dispatch (CAD) and voice radio systems used primarily by the County's public safety first responder agencies including Police, Fire and Rescue, Sheriff, Corrections and Rehabilitation and Emergency Management and Homeland Security. The modernization will include replacement of the current CAD system, replacement of mobile and portable radios, and voice radio communications infrastructure. The initial phase includes the CAD replacement, station alerting system replacement and the acquisition of the P-25 standard radio devices. A subsequent phase would include the replacement of the radio infrastructure, estimated at approximately \$50M. The current project includes \$1.7M for planning and design of the radio infrastructure replacement.

The previously approved Fire Station Alerting System Upgrades project (#451000) was transferred to this project in order to coordinate the upgrades with the new CAD system. The alerting system upgrades will modernize the fire station alerting systems at 32 existing stations, maintaining the ability to notify fire and rescue stations of emergencies. The alerting system, including audible and data signals, is essential for the notification of an emergency and the dispatch of appropriate response units from the county.

As voice, data and video are beginning to converge to a single platform, this project will provide a pathway to a modern public safety support infrastructure that will enable the County to leverage technology advances and provides efficient and reliable systems for first responders. This project will follow the methodologies and strategies presented in the Public Safety Systems Modernization (PSSM) plan completed in July 2009.

COST CHANGE

Cost change is due the accelerated purchase of P-25 compliant radios in order to meet immediate re-banding requirements without having to implement a radio "loaner" program and to take advantage of a "Partial Payment in Lieu of Rebanding" payment of \$3.3 million proposed by Sprint/Nextel. This PILR program will be operationally more efficient than the loaner program; will result in the county having public safety radios with update options that will comply with future FCC requirements. Funding associated with the FY14 purchase of radios has been deleted and will be re-evaluated.

JUSTIFICATION

The Public Safety Systems require modernization. The CAD system is reaching the end of useful life and does not meet the County's current operational requirements, impacting the response time of first responders to 9-1-1 calls. The CAD Roadmap Study, completed in March 2009, recommended replacement of the system to address existing shortcomings and prepare for the next generation 9-1-1 systems. Manufacturer's support for the voice radio system has begun to be phased out December 31, 2009. Beyond that date the manufacturer will only continue to provide system support on an "as available" basis, but will not guarantee the availability of parts or technical resources.

The CAD modernization will initiate with a detailed planning phase that will include the use of industry experts to assist in both business process analysis and developing detailed business and technical requirements for the new CAD system. Utilizing external consultants for this process will allow the County to incorporate lessons learned and best practices from other jurisdictions.

APPROPRIATION AND EXPENDITURE DATA	COORDINATION	MAP																																																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Date First Appropriation</td> <td>FY09</td> <td>(\$000)</td> </tr> <tr> <td>First Cost Estimate</td> <td>FY11</td> <td>52,509</td> </tr> <tr> <td>Current Scope</td> <td></td> <td></td> </tr> <tr> <td>Last FY's Cost Estimate</td> <td></td> <td>54,863</td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <td>Appropriation Request</td> <td>FY12</td> <td>12,670</td> </tr> <tr> <td>Supplemental Appropriation Request</td> <td></td> <td>19,552</td> </tr> <tr> <td>Transfer</td> <td></td> <td>0</td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <td>Cumulative Appropriation</td> <td></td> <td>5,477</td> </tr> <tr> <td>Expenditures / Encumbrances</td> <td></td> <td>2,947</td> </tr> <tr> <td>Unencumbered Balance</td> <td></td> <td>2,530</td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <td>Partial Closeout Thru</td> <td>FY09</td> <td>0</td> </tr> <tr> <td>New Partial Closeout</td> <td>FY10</td> <td>0</td> </tr> <tr> <td>Total Partial Closeout</td> <td></td> <td>0</td> </tr> </table>	Date First Appropriation	FY09	(\$000)	First Cost Estimate	FY11	52,509	Current Scope			Last FY's Cost Estimate		54,863				Appropriation Request	FY12	12,670	Supplemental Appropriation Request		19,552	Transfer		0				Cumulative Appropriation		5,477	Expenditures / Encumbrances		2,947	Unencumbered Balance		2,530				Partial Closeout Thru	FY09	0	New Partial Closeout	FY10	0	Total Partial Closeout		0	<p>COORDINATION</p> <ul style="list-style-type: none"> Public Safety Steering Group Department of Technology Services Department of Police Montgomery County Fire and Rescue Service Sheriff's Office Department of Correction and Rehabilitation Office of Emergency Management and Homeland Security Department of Transportation Department of Liquor Control Montgomery County Public Schools (MCPS) Maryland-National Park and Planning Commission (M-NCPPC) Park Police Washington Metropolitan Area Transit Authority (WMATA) 	
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As more of the County's regional partners migrate to newer voice technologies, it will affect interoperable voice communications. To ensure that the County maintains reliable and effective Public Safety (voice radio) communications for the operations of its first responders and to sustain communications interoperability for seamless mutual aid among its regional partners, the County needs to commence planning and implementation of a program to upgrade and modernize its portable and mobile radio units and subsequently the communications infrastructure. Acceleration of the public safety radio purchases and increased funding is needed to take advantage of a "Partial Payment in Lieu of Re-Banding" offer from Sprint/Nextel toward the financing of new, upgraded, P-25 compliant public safety radios. Upgrading from the Model 5000 to the APX 7000 Model and accelerating the purchase of the public safety radios will support Public Safety communications interoperability Countywide as well as meet the Federal Communications Commission (FCC) mandated 800 MHz frequency rebanding requirements for nationwide public safety radio frequency interoperability. In addition, by accelerating the purchase of the public safety radios to FY11, the County will avoid the significant operational challenges of installing loaner radios and subsequent re-installation of the original re-programmed radios after the frequency modifications have been made. Further a third replacement would be required when the County acquired new radios.

The fire station alerting system upgrades were identified as a need under Section 5 of the MCFRS Master Plan (adopted by the County Council in October 2005) and detailed in the Station Alerting and Public Address (SA/PA) System for Fire/Rescue Stations, Rev 1, 2006. This project allows for the continuous and seamless functioning of the alerting systems within each fire station. A preliminary survey by DTS of existing conditions at all stations revealed system wide concerns, including inadequate spare parts inventory and lack of available maintenance support for alerting systems.

OTHER

Conditions: FY11 appropriation for this project must be used as follows:

Not more than \$300,000 for planning for public safety radio infrastructure replacement

Not more than \$550,000 for planning for CAD replacement

Not more than \$75,000 for planning and \$125,000 for construction of station alerting.

\$20.936 million is appropriated in FY11 to purchase P-25 compliant radios that will allow the county to complete the immediate re-banding within the 800 MHz frequency as required by the Federal Communication Commission. The radio replacement program must include the M-NCPPC Montgomery County Park Police.

The Executive must provide the Council with an updated radio inventory after the re-banding program is implemented, the new public safety radios have been assigned, and radios currently used by public safety staff are reassigned to non-public safety programs.

New radio infrastructure will be planned to open up the competitive environment and will demonstrate the ability to accept multiple vendors. The future purchase of public safety radios (other than to replace broken equipment) must be able to be supported by a P25 Phase-2 compliant infrastructure.

The use of State of Maryland infrastructure and purchase options will be aggressively pursued in order to minimize costs to Montgomery County.

The Executive must provide the Council with quarterly written updates beginning in January 2011 on the Public Safety Modernization project that include information on progress in planning, implementation, and spending for all components of the project.

The CAD procurement request must reflect the County's interest in maintaining the station altering functionality at the current level or better through the CAD system.

Funds appropriated for this project must not be used to purchase or implement a new CAD system or radio infrastructure until the Executive provides the Council with a detailed proposal and accurate cost estimates for the total project scope.

The RFP for CAD replacement will include replacement of the following systems: CAD, mapping, and the existing Law Enforcement Records Management and Field Reporting systems. In addition, replacement of the following systems will be considered for inclusion in the CAD replacement RFP: Fire Station Altering, ProQA, False Alarm Reduction Section, Paging, and Fire House records management.

Coordination with participating department/agencies and regional partners will continue throughout the project.

FISCAL NOTE

Funding in FY09 includes Urban Area Security Initiative (UASI) grant funding of \$2.055 million and Fire Act grant funding of \$988,000. Funding in FY11 includes UASI funding of \$300,000.

Estimated costs for the elements to be funded in the current phase of the project are: CAD replacement \$23.340 million; station altering system \$3.489 million; planning for radio infrastructure replacement \$1.701 million.