

MEMORANDUM

March 1, 2022

TO: Joint Public Safety Committee and Government Operations & Fiscal Policy Committee

FROM: Susan J. Farag, Legislative Analyst

SUBJECT: CIP: FY23-28 Public Safety System and Modernization (PSSM)

PURPOSE: To review the CIP for the PSSM and recommend approval.

Those expected to attend the worksession include:

Mike Knuppel, Manager, Technology & Enterprise Business Solutions (TEBS)
Assistant Chief Darren Francke, Montgomery County Police Department (MCPD)
Gerry Adcock, Manager, Radio Communication Services Project Manager, TEBS
Alison Dollar, Chief Budget Officer, TEBS
Julie Knight, Office of Management and Budget (OMB)

Overview

The Executive is recommending a total project cost of \$111.494 million, which is a \$2 million decrease from the approved FY21-26 CIP. Project savings of \$2 million was transferred to the Dickerson Radio Tower project.¹ This project was first approved in FY09 and over the years, it has provided funding for several subprojects and associated staff charges needed to upgrade and modernize various public safety systems. Completed subprojects include:

- Fire Station Alerting;
- Computer Aided Dispatch;
- Public Safety Mobile and Portable Radio Replacement;

Active subprojects include:

- Law Enforcement Records Management System (LE-RMS); and
- The last component of the Radio System Infrastructure Project which provides for the Advanced Messaging and Responder Locator project.

¹ February 17, 2022 [staff report](#) on the Dickerson Radio Tower project

Public Hearing Testimony

To date, Council has not received any public hearing testimony.

LE-RMS Subproject (est. \$3.5 million)

This subproject provides for a new records management system for the Police Department. MCPD's current record management system, EJustice, is an oracle-based database system that was acquired in 2004 and has an expected lifespan of seven to nine years. While the system has been stabilized and is expected to remain functional until a new system is implemented, the current system is unwieldy and inefficient for meeting current data reporting and analysis needs, such as submitted data to the FBI in the format required by the National Incident-Based Reporting System (NIBRS). The project team remains in complex negotiations with the vendor. Face-to-face negotiations are planned for early March. The \$3.5M is the estimated cost of the LE-RMS SaaS solution. Once the contract is signed and awarded – it will be approximately 18-24 months for full implementation.

Advanced Messaging and Responder Locator Solution (\$1.175 million)

The Advanced Messaging and Responder Locator project is actively underway. The project is planned to be completed this calendar year, likely in the fall. The Astro Advanced Messaging solution is a text-based radio application that allows first responders to send and receive pre-programmed or free-form text messages to individuals or groups directly from their radios. The Responder Location application allows first responders to accurately status themselves when they reach an emergency, and accurately and automatically report their locations when they are away from their vehicles. The Executive advises that this feature is critical for first responder safety. Current systems only report on the location of the vehicle and not the actual responders.

The Joint Committee will also review the County Lifecycle Radio Replacement² project, which provides for the replacement of all public safety radios purchased in FY11. *It would be helpful to understand how this advanced messaging and responder locator solution will work with replacement radios.*

Council Staff Recommendation

Council staff recommends approval as submitted by the Executive.

This staff report contains

Recommended FY23-28 Public Safety System Modernization PDF

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² [County Lifecycle Radio Replacement \(P342301\)](#)



Public Safety System Modernization (P340901)

Category	General Government	Date Last Modified	01/10/22
SubCategory	County Offices and Other Improvements	Administering Agency	County Executive
Planning Area	Countywide	Status	Ongoing

EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
Planning, Design and Supervision	5,685	5,260	195	230	230	-	-	-	-	-	-
Construction	5,852	4,404	1,448	-	-	-	-	-	-	-	-
Other	99,957	87,806	7,684	4,467	1,748	2,719	-	-	-	-	-
TOTAL EXPENDITURES	111,494	97,470	9,327	4,697	1,978	2,719	-	-	-	-	-

FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
Contributions	32	32	-	-	-	-	-	-	-	-	-
Current Revenue: General	10,211	7,671	2,045	495	495	-	-	-	-	-	-
Federal Aid	2,947	2,947	-	-	-	-	-	-	-	-	-
G.O. Bonds	48,921	37,437	7,282	4,202	1,483	2,719	-	-	-	-	-
PAYGO	2,240	2,240	-	-	-	-	-	-	-	-	-
Recordation Tax Premium (MCG)	2,800	2,800	-	-	-	-	-	-	-	-	-
Short-Term Financing	44,343	44,343	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	111,494	97,470	9,327	4,697	1,978	2,719	-	-	-	-	-

OPERATING BUDGET IMPACT (\$000s)

Impact Type	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Maintenance	1,800	100	100	400	400	400	400
Program-Staff	960	-	-	240	240	240	240
Program-Other	-	-	-	-	-	-	-
NET IMPACT	2,760	100	100	640	640	640	640

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 23 Request	-	Year First Appropriation	FY09
Appropriation FY 24 Request	-	Last FY's Cost Estimate	113,494
Cumulative Appropriation	111,494		
Expenditure / Encumbrances	103,478		
Unencumbered Balance	8,016		

PROJECT DESCRIPTION

This program will provide for phased upgrades and modernization of computer aided dispatch (CAD), law enforcement records management system (RMS), 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/RMS system, replacement of public safety mobile and portable radios, upgrade of non-public safety mobile and portable radios, and replacement of core voice radio communications infrastructure. The previously approved Fire Station Alerting System Upgrades project (CIP #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 43 existing work sites, 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 provide 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.

ESTIMATED SCHEDULE

The infrastructure update for the Public Safety Radio System was completed in March 2021. The installation of the desktop radio consoles for the Alternate Emergency Communications Center will be completed by the end of FY22. The County anticipates that the Law Enforcement Records Management System (LE-RMS) contract will also be awarded by the end of FY22 and implemented within 18 months.

COST CHANGE

Cost savings were transferred to a new Dickerson Radio Tower project in FY22.

PROJECT JUSTIFICATION

The public safety systems require modernization. Prior to replacement, the CAD system was reaching the end of useful life and did 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. The manufacturer's support for the voice radio system had to be phased out as of 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 initiated a detailed planning phase that included the use of industry experts to assist with business process analysis and to develop detailed business and technical requirements for the new CAD system. This process allowed the County to incorporate lessons learned and best practices from other jurisdictions. 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 needed to implement a project to upgrade and modernize its portable and mobile radio units and subsequently the radio voice communications infrastructure. Acceleration of the public safety radio purchases was initiated 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 and to meet the Federal Communications Commission (FCC) mandated 800 MHZ frequency rebanding requirements for nationwide public safety radio frequency interoperability. Now, the installation of the new core radio communication infrastructure is needed. 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

\$20.936 million was appropriated in FY11 to purchase P-25 compliant radios that allowed the County to complete immediate re-banding within the 800 MHz frequency as required by the FCC. The radio replacement program includes the M-NCPPC Montgomery County Park Police. 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 will be aggressively pursued in order to minimize costs to Montgomery County. The CAD procurement request will reflect the County's interest in maintaining the station alerting functionality at the current level or better through the CAD system. 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. Coordination with participating department/agencies and regional partners will continue throughout the project.

FISCAL NOTE

Funding in FY09 included Urban Area Security Initiative (UASI) grant funding of \$2.055 million and Fire Act grant funding of \$988,000. Funding schedule reflects FYI 8 supplemental adding \$32,000 in Contributions for additional equipment required for Local Fire Rescue Departments (LFRDs). FYI 8 funding switch is due to a transfer of Current Revenue General for \$283,000 from Technology Modernization (MCG) project offset by an equal reduction in Short Term Financing. In FY22, a \$2 million transfer was made to a new Dickerson Radio Tower project.

COORDINATION

PSSM Executive Steering Committee, Executive Program Directors, Department of Technology and Business Enterprise Solutions, 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)