

**D06E021B**  
**Public Safety Communications System**  
**Board of Public Works**

***Public Safety Communications System (Statewide)***

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**PAYGO GF    \$10,000,000    Recommendation:    Reduce by \$1 million.**

**Nonbudgeted    \$2,475,000**

**Project Description:** Construct a statewide Public Safety Communications System to provide the State with a new, modern wireless 700 megahertz (MHz) communications system. This 700 MHz communications system will link several large State agency users (for example, Maryland State Police, Maryland Department of Transportation, Maryland Transportation Authority, and the Department of Natural Resources) as well as multiple smaller agencies (for example, the Maryland Department of the Environment, the Department of Juvenile Services, and the Department of Public Safety and Correctional Services). The infrastructure will also be available to participating local jurisdictions. Current local users include Anne Arundel, Caroline, Cecil, Dorchester, Frederick, Harford, Howard, Montgomery, Queen Anne’s, Talbot, and Worcester counties as well as Ocean City.

The project infrastructure is scheduled to be complete by the end of 2011. However, it should be noted that the estimated total project cost has increased to \$108.5 million, up from the \$104 million estimated in fiscal 2006. The bulk of this increase (\$3 million) is the inclusion of two previously nonbudgeted pilot projects in the fiscal 2007 budget.

The 700 MHz system will also be interoperable with local public safety communications systems that are being developed in the 800 MHz spectrum, ensuring that first responders regardless of jurisdiction can effectively and easily communicate with one another. This interoperability depends on local jurisdictions developing their own 800 MHz system and the availability of mobile, portable, and base station equipment radio equipment that can operate in both bands. The Department of Budget and Management (DBM) is moving forward in developing a collaborative effort to solve the interoperability problem within State government and between State and local government including establishing an interoperability Governance Working Group representing State, county, and municipal first responders and technical staff. The fiscal 2006 operating budget included \$1,000,000 for the planning of a standard enterprise architecture for the 700 MHz system. The establishment of this standard will optimize the benefits of interoperability over the Public Safety Communications System.

In October 2005, DBM issued a Request for Proposals (RFP) to “obtain the technical expertise necessary to define and establish the strategy and technical architecture for a statewide, interoperable wireless radio system that supports public safety and first responder voice and data communication requirements.” The RFP is intended to address such issues as:

Note: Numbers may not sum to total due to rounding.

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- identifying the functional requirements of system users;
- providing recommendations for deploying a statewide interoperable radio system;
- defining an implementation strategy; and
- establishing proof of concept sites to demonstrate that the proposed engineering will meet the needs of the state.

At the time of writing, DBM was evaluating responses to the RFP and anticipates awarding a contract in April 2006. A separate effort is underway to inventory the 316 tower sites across the State in order to determine future construction needs. This inventory is expected to be completed by May 2006.

**Comments:** The benefits of the new 700 MHz system include interoperability (the ability of different agencies to readily communicate with another, something currently lacking) as well as data and voice transmission. The system will also replace existing equipment that is becoming difficult to repair because it is obsolete and replacement parts are difficult to obtain. Public safety agencies maintain that a statewide 700 MHz public safety communications system is the ultimate permanent solution to interoperability.

The system will operate using a new frequency spectrum (24MHz at 764-776MHz and 794-806 MHz) that the Federal Communications Commission (FCC) is scheduled to release in the 700 MHz frequencies on December 31, 2006, and has been designated for public safety use. This spectrum is currently occupied by television channels 60 through 69. These broadcast channels must move from these frequencies by December 31, 2006, or when 85% of households in a television market receive digital programs (either via digital television sets, a digital converter, or through multichannel digital services via cable or satellite), whichever is later.

### **The Transition from Analog: After Superbowl XLIII....**

Most observers recognize that the December 31, 2006, deadline is essentially unreachable. At the same time, the 9/11 Commission in its follow-up report noted the continued failure of first responders to adequately communicate with each other. After several previous failed attempts to establish a hard deadline for the transition from analog to digital transmission that would clear the 24 MHz of spectrum in question, in December 2005 the U.S. Congress passed legislation establishing a deadline of February 18, 2009, for the transition from analog to digital transmission.

That same legislation allows the FCC to auction spectrum not otherwise allocated as well as establishing a \$1 billion grant program to help public safety agencies obtain and deploy interoperable communications systems and another \$1 billion program to subsidize the purchase of digital set-top-box converters to allow viewers with analog televisions to continue receiving broadcast signals (estimates range from 13-19% of U.S. households).

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It should also be noted that DBM anticipates that although the firm 2009 deadline is important in establishing a date certain (as much as any such deadline can be considered certain) for the beginning of the migration to the newly available frequencies, it will be a number of years before all of the various radio systems can migrate. The specific timing of the migration will depend on:

- existing systems becoming obsolete, reaching end of product life cycles or exhausting capacity;
- the availability of capital funds to finish the infrastructure; and
- the availability of operating funds to support radio systems that can appropriately operate on the new frequencies.

### **Use of Alternative Funding Sources**

A longstanding concern of the budget committees about the Public Safety Communications System has been the extent of State funds involved in the project even though the key benefit of the project is interoperability among all levels of government responders. Specifically:

- In the 2003 session, the budget committees adopted *Joint Chairmen's Report (JCR)* narrative asking DBM to revisit cost estimates for the system by taking into account local contributions that it was seeking from local jurisdictions and other nonbudgeted agencies, as well as seeking federal funds. Following that JCR, DBM did restate expenditures to include non-state funding sources, effectively reducing State contributions by almost 20%. DBM also indicates that the establishment of the interoperability Governance Working Group could yield further benefits in terms of overall cost reductions to the State from additional resource-sharing.
- However, as noted in the fiscal 2006 analysis of the system, while DBM was able to demonstrate a significant amount of other funding sources, the extent of federal funds used in the projects has remained small (\$400,000 in fiscal 2005 only). Many homeland security and other federal grants could be used for this system but have not been. Consequently JCR narrative was adopted that asked the Governor's Grants Office, in collaboration with DBM, to investigate the potential federal grant sources that could be used for this project. Although a JCR response was received in December 2005, the response was limited to one particular federal Homeland Security grant. Although the response well-articulated the reason why this particular grant source could not be used for the Public Safety Communications System (specifically that the grant was geared towards one-time rather than multi-year proposals), it did not review other potential funding sources. DBM has indicated that it will pursue a review of all appropriate federal funding sources with the Governor's Grant Office as requested by the JCR.

**Proposed Fiscal 2007 Expenditures:** As shown in **Exhibit 1**, the fiscal 2007 funding proposed in the capital bill supports a variety of projects in Baltimore, Charles, Prince George's, Somerset, Talbot, Wicomico, and Worcester counties plus some statewide expenditures. The projects are primarily tower construction, the construction of equipment shelters, and the installation of microwave dishes. \$3 million is allocated for the two proof of concept pilot projects in Talbot and Worcester counties.

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**Exhibit 1**  
**Proposed Fiscal 2007 Expenditures**  
**(\$ in Millions)**

<u>County</u>	<u>Project</u>	<u>Cost</u>
Baltimore	Microwave dish	\$110,000
Charles	Microwave dishes (4), towers (4), and shelter construction (4)	2,040,000
Prince George's	Microwave dishes (4), tower, and shelter construction	840,000
Somerset	Microwave dishes (2), towers (2) and shelter construction (4)	1,020,000
Talbot	Microwave dish, towers (2), and shelter construction (2)	910,000
Talbot	Easton MSP-Wye Mills-Matapeake 700 MHz Pilot Project	1,800,000
Wicomico	Microwave dishes (2), tower and shelter construction	620,000
Worcester	Microwave dish , tower, and shelter construction	510,000
Worcester	Berlin MSP-Ocean City 700 MHz Pilot Project	1,200,000
Statewide	Frequency coordination, soil investigations, and other	141,500
Statewide	Contingencies (8.1%)	808,500
<b>Total</b>	<b>General Fund PAYGO</b>	<b>\$10,000,000</b>

Source: Department of Budget and Management

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In addition, as shown in **Exhibit 2**, the project will receive the equivalent of another \$2.475 million in in-kind contributions from local jurisdictions and nonbudgeted State agencies.

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**Exhibit 2**  
**Public Safety Communications System**  
**Fiscal 2007 Nonbudgeted Funds**

<u>County</u>	<u>Project</u>	<u>Cost</u>
Allegany	Microwave dishes (3)	\$375,000
Calvert	Microwave dishes (5)	625,000
Frederick	Microwave dish	125,000
Garrett	Microwave dishes (3)	375,000
St. Mary's	Microwave dishes (5)	625,000
Maryland Transportation Authority	Tower (Nice Bridge)	350,000
<b>Total</b>		<b>\$2,475,000</b>

Source: Department of Budget and Management

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**Project Data**

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(\$ in Millions)

<b>Description</b>	<b>Prior Authorization</b>	<b>2007 Request</b>	<b>Out Year Estimate</b>	<b>Total Estimate</b>
Acquisition	\$0.125	\$0.000	\$0.000	\$0.125
Planning	2.751	0.000	0.000	2.751
Construction	25.547	6.050	23.226	54.823
Equipment	19.525	6.425	24.776	50.801
<b>Total</b>	<b>\$47.823</b>	<b>12.475</b>	<b>\$48.002</b>	<b>\$108.500</b>

**Total Project Cost:** \$108.5 million      **Estimated Completion Date:** December 2011

**Review of Prior and Current Year Appropriations:** Of the funding appropriated for the Public Safety Communications System prior to fiscal 2006, all but \$1.5 million has been encumbered and expended. This remaining funding is anticipated to be encumbered prior to the end of fiscal 2006. In fiscal 2006, DBM anticipates encumbering \$8 million of the \$9 million in State funds made available to it in fiscal 2006.

## ***Recommended Actions***

	<b><u>Amount Reduction</u></b>	
1. Reduce funding by \$1 million. The Department of Budget and Management anticipates that \$1 million in fiscal 2006 funds for this project will be unencumbered at the end of fiscal 2006. A \$1 million reduction will still allow for fiscal 2007 State expenditures of \$10 million and will still fund the project at the same level as in fiscal 2006.	\$ 1,000,000	GF
<b>Total General Fund Reductions</b>	<b>\$ 1,000,000</b>	