



● **Board of Directors**  
***Engineering and Operations Committee***

5/9/2017 Board Meeting

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**8-5**

**Subject**

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Adopt CEQA determination and appropriate \$2 million; and authorize: (1) agreement with Johnson Controls, Inc. to maintain Metropolitan's physical security system in an amount not-to-exceed \$3.8 million; and (2) agreement with Johnson Controls, Inc. for upgrades to the physical security system in an amount not-to-exceed \$1.5 million (Appropriation No. 15499)

**Executive Summary**

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This action awards an agreement for maintenance of Metropolitan's enterprise-wide physical security system for a one-year period beginning July 1, 2017, with options to renew for four additional one-year periods. This action also authorizes an agreement to upgrade specific components of the physical security system that will extend its useful life for at least another five years.

**Timing and Urgency**

Metropolitan safeguards its infrastructure through a combination of physical barriers, contracted security guard services, electronic access control, video monitoring, operational patrols, water quality monitoring, and employee awareness. Through this multi-layered approach, Metropolitan protects the personnel and infrastructure, which deliver treated and untreated water to the region.

The electronic security system integrates data from access control, intrusion detection, and video monitoring systems across all of Metropolitan's Southern California infrastructure. In 2003, Johnson Controls, Inc. was awarded a contract to design and install the system through a competitive procurement process. Johnson Controls was subsequently awarded contracts in 2007 and 2012 to maintain and repair existing equipment, and to integrate security equipment from all new facilities. Johnson Controls' maintenance agreement expires on June 30, 2017, and staff recommends that a new agreement be authorized so that security system maintenance may continue without interruption. Funds for this work were included in the Water System Operations O&M budget for fiscal year 2017/18, and would remain budgeted as an O&M expenditure in subsequent biennial budgets.

In addition to the maintenance agreement, hardware upgrades are needed to specific components of the physical security system such as network controllers, computer servers, and card readers. These upgrades will extend the useful life of the 14-year-old system and will incorporate the latest encryption technology on the card readers. The upgrade project has been reviewed with Metropolitan's Capital Investment Plan (CIP) prioritization criteria and is included in the System Reliability Program. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2016/17.

**Details**

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**Background**

Metropolitan provides physical security control measures to defend its facilities from intrusion. The physical security system integrates data from over 950 card readers, 600 cameras, and 2,000 alarm points at 74 locations throughout Southern California. All data are monitored 24/7 at two security control rooms. This system was designed and installed by Johnson Controls to meet Metropolitan's specific operational and security requirements.

Johnson Controls was selected in 2003 through a competitive procurement process. The resulting agreement included design and installation of the security systems and four years of maintenance service beyond the original one-year warranty period. Due to the specialized nature of maintaining the security systems, and because of the need for rapid response for repairs, Metropolitan's Board authorized two maintenance agreements with Johnson Controls, first in July 2007 for a not-to-exceed amount of \$2.7 million and subsequently in May 2012 for a not-to-exceed amount of \$3.75 million.

While planning for the 2012 maintenance contract, staff anticipated approximately five additional years of useful life for the security system before needing to begin a system upgrade or replacement. Due to technological obsolescence, it was expected that software updates and hardware components for the network controllers and computer servers would become unavailable during this period. Following the award of the 2012 contract to Johnson Controls, Metropolitan hired a consultant to evaluate the existing physical security system and to provide recommendations for an upgrade or replacement. The consultant indicated that the existing system continues to perform well and that a complete replacement is not needed at this time. Staff concluded that the useful life of the existing system could be extended with incremental upgrades to computer servers, network controllers, and card readers. These hardware upgrades would then allow installation of the most current version of the specialized security software. The consultant also cautioned that the electronic security industry was undergoing rapid change with corporate consolidations and an uncertain future for many existing product lines. Staff concurs with this analysis and recommends proceeding with incremental upgrades to extend the useful life of the security system and to wait until more is known about the future product lines before initiating a replacement. Staff will continue to evaluate long-term options for major system upgrades or system replacement based on technological developments.

This action authorizes: (1) a physical security maintenance agreement with Johnson Controls to allow for continuous operation of the existing security system, and (2) a security system upgrade project to replace obsolete components in the existing system and incorporate encryption technology in all of the card readers.

#### **Security System Maintenance Agreement (\$3,800,000)**

The scope of the physical security system maintenance agreement includes software updates (made possible by the planned hardware upgrades) and maintenance and repair of the system to ensure high reliability and availability throughout all of Metropolitan's facilities. The agreement will provide 24/7 maintenance of the physical security system, which includes card readers, computer servers, network controllers, electronic access control and intrusion detection systems, alarms, and video surveillance systems. Integration of any new facilities or equipment into the existing system is also included.

This agreement was negotiated with Johnson Controls for up to \$3.8 million over a five-year period and provides for preventive and corrective maintenance of the physical security system. Metropolitan has the option to terminate the agreement on July 1, 2018, or on July 1 of each subsequent year of the agreement term. Upon each renewal period, Metropolitan staff will negotiate rates for the following year to ensure the most cost effective maintenance program is selected. The cost of this proposed five-year maintenance agreement is only 1.3 percent higher than the current maintenance agreement and funds for the first year of the agreement are included in the fiscal year 2017/18 O&M budget.

#### **Security System Upgrades Project – Design and Implementation (\$2,000,000)**

Metropolitan staff, Metropolitan's consultant, and Johnson Controls collaborated to identify all of the hardware upgrades needed to extend the useful life of the security system. The approach identified 111 network controllers, 19 computer servers, 966 card readers, and the video management system software as needing replacement. The card readers will be upgraded with an encryption technology to counteract the potential for illegitimate data capture technologies (e.g., counterfeit badges).

An agreement with Johnson Controls is recommended because of the unique nature of the integrated hardware and software. Although hardware components such as the card readers could be obtained from various vendors, the most cost effective approach is to utilize Johnson Controls because of their specific integration and configuration features that have been customized for Metropolitan's system. Further, Johnson Controls offered

their equipment and hardware at a below-market price based on the federal General Services Administration pricing.

This action appropriates \$2 million and authorizes a contract for \$1.5 million with Johnson Controls to upgrade the physical security system. Johnson Controls will provide all of the hardware, install the hardware within pre-existing cabinets, and replace all of the card readers with new card readers upgraded with encryption technology. They will also update the video management and access control software. Finally, Johnson Controls will configure the new equipment with the updated software and fully test the new system.

In addition to the amount of the contract, the requested funds include: \$384,000 for installation inspection and testing, \$55,000 for project management, \$20,000 for materials, supplies, and incidental expenses, and \$41,000 for remaining budget. This work will be performed by Metropolitan staff.

This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team and funds are available within the fiscal year 2016/17 Capital Expenditure Plan. See [Attachment 1](#) for the Financial Statement.

This work is included within capital Appropriation No. 15499, Metropolitan Security System Enhancements. The total estimated cost to complete the security system enhancements is \$2 million.

### ***Project Milestone***

February 2018– Complete upgrades to hardware, card readers, and video monitoring and access control software.

### **Policy**

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Metropolitan Water District Administrative Code Section 8121(a): General Authority of the General Manager to Enter Contracts (Contracts over \$250,000)

Metropolitan Water District Administrative Code Section 8140(e): Competitive Procurement

Metropolitan Water District Administrative Code Section 9100(b): Objectives (Risk Management)

### **California Environmental Quality Act (CEQA)**

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#### **CEQA determination for Options #1 and #2:**

The proposed action is categorically exempt under provisions of CEQA and the State CEQA Guidelines. The proposed action involves the design, installation, and maintenance of security systems at existing public facilities involving negligible or no expansion of use and no possibility of significantly impacting the physical environment. Accordingly, the proposed action qualifies under a Class 1 Categorical Exemption (Section 15301 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under a Categorical Exemption (Class 1, Section 15301 of the State CEQA Guidelines).

**Board Options**

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**Option #1**

Adopt the CEQA determination that the proposed action is categorically exempt, and

- a. Authorize a new five-year maintenance agreement with Johnson Controls, Inc. for a total amount not-to-exceed \$3.8 million for routine maintenance of the physical security system at all Metropolitan facilities, with an option for Metropolitan to terminate the agreement on an annual basis.
- b. Appropriate \$2 million and authorize a \$1.5 million agreement with Johnson Controls, Inc. to implement upgrades to specific components of the physical security system.

**Fiscal Impact:** \$3.8 million of budgeted O&M funds over five fiscal years starting on July 1, 2017 and ending on June 30, 2023, and \$2 million in capital funds under Appropriation No. 15499.

**Business Analysis:** This option will ensure that Metropolitan’s physical security system continues to function properly on a 24/7 basis.

**Option #2**

Adopt the CEQA determination that the proposed action is categorically exempt, and

- a. Authorize a new two-year maintenance agreement with Johnson Controls, Inc. for a total amount not-to-exceed \$1.52 million for routine maintenance of the physical security system at all Metropolitan facilities, with an option for Metropolitan to terminate the agreement after the first year.
- b. Direct staff to replace Metropolitan’s physical security system through a competitive procurement process.

**Fiscal Impact:** \$1.52 million of budgeted O&M funds over two fiscal years starting on July 1, 2017 and ending on June 30, 2019. The cost for the design, procurement, and installation of a replacement physical security system is estimated at \$10 million – \$15 million.

**Business Analysis:** Under this option, the current system would need to remain operable during the design, procurement, and installation of the new system. It is estimated that full implementation of the new system would take up to two years.

**Staff Recommendation**

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Option #1

  
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 James Green  
 Manager, Water System Operations

4/20/2017  
Date

  
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 Jeffrey Kightlinger  
 General Manager

4/24/2017  
Date

**Attachment 1 – Financial Statement**

**Financial Statement for Physical Security System Appropriation**

A breakdown of Board Action No. 1 for Appropriation No. 15499 for physical security system upgrades<sup>1</sup> is as follows:

	<b>Previous Total Appropriated Amount</b>	<b>Current Board Action No. 1 (May 2017)</b>	<b>New Total Appropriated Amount</b>
Labor			-
Owner Costs (Program mgmt., & contract admin.)		55,000	55,000
Construction Inspections & Support		384,000	384,000
Materials & Supplies		15,000	15,000
Incidental Expenses		5,000	5,000
Professional/Technical Services		1,500,000	1,500,000
Equipment Use	-	-	-
Contracts		-	-
Remaining Budget		41,000	41,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 2,000,000</b>	<b>\$ 2,000,000</b>

**Funding Request**

<b>Appropriation Name:</b>	Metropolitan - Security System Enhancements		
<b>Source of Funds:</b>	Revenue Bonds, Replacement and Refurbishment or General Funds		
<b>Appropriation No.:</b>	15499	<b>Board Action No.:</b>	1
<b>Requested Amount:</b>	\$ 2,000,000	<b>Budget Page No.:</b>	N/A
<b>Total Appropriated Amount:</b>	\$ 2,000,000	<b>Total Appropriation Estimate:</b>	\$ 2,000,000

<sup>1</sup>This is the initial action for the Security System Enhancements. The total cost to complete these upgrades is \$2 million.