

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

August 15, 2006 Board Meeting

7-3

Subject

Appropriate \$1.928 million for four security system improvement projects; award a \$529,350 construction contract to the Fishel Company for Copper Basin Security Fiber Optic Cable Network System; and authorize an agreement not to exceed \$1.1 million for a floating waterway security barrier system at Whitsett Intake Pumping Plant (Approp. 15295) **[Any discussion of specific threats or facilities to be heard in closed session. Conference with Metropolitan Security Manager—threat to public services or facilities; to be heard in closed session pursuant to Gov. Code Section 54957(a)]**

Description

Background

As a result of the events of September 11, 2001, Metropolitan has modified its security protocols and initiated a security system improvements program to defend against security threats and to provide security improvements based on a comprehensive vulnerability assessment.

In February 2002, Metropolitan's Board authorized the three major components of this program: (1) Physical security improvements, (2) Landscape screening projects, and (3) Enhanced water quality monitoring systems. In June 2003, Metropolitan's Board authorized an agreement with Johnson Controls, Inc. (JCI) to implement physical security improvement systems at Metropolitan facilities. The design and installation of the authorized physical security improvements have been completed and a maintenance agreement has been executed with JCI. The landscape screening projects along Balboa Boulevard (Jensen plant) and Wheeler Avenue (Weymouth plant) were completed in January 2003 and April 2004, respectively, and the enhanced water quality monitoring systems were completed in February 2006.

Since the security system projects were originally authorized, four additional physical security improvements have been identified and are recommended to proceed by staff in order to secure and protect Metropolitan facilities. These projects include the Copper Basin Security Fiber Optic Cable Network, Floating Waterway Security Barrier System, Entry Control Point Standardization and Perimeter Defense, and Critical Lock Identification and Change-Out projects. Each of these projects has been evaluated and recommended by Metropolitan's Capital Investment Plan Evaluation Team, and funds have been included within the fiscal year 2006/07 capital budget.

Copper Basin Security Fiber Optic Cable Network Construction (\$1.023 million)

As part of the security system improvements authorized by the Board in June 2003, Metropolitan staff installed a microwave antenna at Copper Basin to provide network connectivity for security video and access control from Copper Basin to Gene Camp. Due to radio interference at Black Metal Mountain, transmission coverage over Copper Basin reservoir could not be achieved. Staff researched and identified an alternative solution to provide network connectivity for the security systems at Copper Basin, and a fiber optic cable network system is recommended. In addition to improving security monitoring, Supervisory Control and Data Acquisition (SCADA) and other applications at Copper Basin will be improved as a result of the upgrade. Aerial fiber optic cable requires little maintenance and will provide network connectivity solutions for security, SCADA, and other applications for the next 20 years.

Specifications No. 1573 for the Copper Basin Security Fiber Optic Cable Network System was advertised on June 1, 2006. As shown in [Attachment 1](#), three bids were received and opened on July 10, 2006. The low bid

from Verizon contained added conditions and alterations of the bid documents and was therefore nonresponsive. The second low bid from the Fishel Company, in the amount of \$529,350, complies with the requirements of the specifications. The engineer's estimate was \$848,300. For this contract, Metropolitan requires Small Business Enterprise (SBE) participation of at least 20 percent of the bid amount. The Fishel Company has committed to meet this requirement.

This action appropriates \$1.023 million in budgeted funds and awards a \$529,350 construction contract to the Fishel Company. In addition to the amount of the contract, the appropriated funds include \$95,000 for Metropolitan force construction; \$65,000 for construction management and inspection; \$163,000 for project management, environmental monitoring, engineering and information technology design, submittal and shop drawing review; \$155,000 for purchase of materials; and \$15,000 for incidental expenses.

Floating Waterway Security Barrier System Design, Installation and Maintenance (\$1.221 million)

Improvements are recommended at Metropolitan's critical facilities to deter intrusion by watercraft. One such improvement is a floating waterway security barrier system. Similar to the existing barrier located at Parker Dam, a pilot project is planned at Whitsett Intake Pumping Plant. A future candidate for a similar enhancement would be Diamond Valley Lake.

Staff recommends entering into an agreement for design and installation of a floating waterway barrier. The amount of the agreement would not exceed \$1.1 million. The planned scope for this agreement includes design, procurement of materials and equipment, installation, and a five-year maintenance commitment. Selection of the consultant to provide these services is underway and follows a competitive process. Request for Information (RFI) No. 782 was issued on March 24, 2006 to over 100 firms. In response to RFI No. 782, two firms submitted responses. Both firms were deemed qualified and were issued Request for Proposals (RFP) No. 793 on July 12, 2006. Following evaluation of the proposals, staff anticipates recommending award of a contract to one of the two firms at the time this item is discussed in the August 2006 Engineering and Operations Committee meeting.

This action appropriates \$1.221 million in budgeted funds and authorizes a professional services agreement in an amount not to exceed \$1.1 million, with the best qualified firm based on the responses to RFP No. 793, as will be recommended to your Board prior to taking action, for design and installation of a floating waterway security barrier at the Whitsett Intake Pumping Plant. Both qualified firms are considered SBEs and therefore 100 percent SBE participation will be achieved for this work. In addition to the amount of the agreement, the appropriated funds include \$40,000 for construction management and inspection, and \$81,000 for project management, environmental monitoring, design review and incidental expenses.

Entry Control Point Standardization and Perimeter Defense Study (\$246,000)

It is important to defend Metropolitan's critical assets at key operating facilities from intruders and trespassers. Perimeter fences and guard posts control access to facilities on a 24-hour/day, 7-day/week basis. However, existing fences and guard shacks are susceptible to damage or attack by heavy vehicles used to ram fences and topple guard shacks. Deploying effective barriers and improving perimeter intrusion detection would strengthen Metropolitan's defenses. At present, uniform criteria to guide the design of new and the modification of existing facilities are not available. This study will develop the needed standards required to defend Metropolitan's facilities. The work will be executed by a consultant selected through a competitive process. It is anticipated that an agreement will be awarded to the selected consultant under the General Manager's Administrative Code authority.

This action appropriates \$246,000 in budgeted funds and authorizes the development of uniform design standards for entry control point and perimeter defense systems at Metropolitan facilities.

Critical Lock Identification and Change-Out Study and Implementation (\$630,000)

This project will focus on physical security needs at structures and throughout the distribution system where aging locks need replacement but cannot be networked into Metropolitan's electronic security system. The project will

include an independent study to develop options for instituting lock and key controls as well as selection of hardware and materials.

Approximately 5,000 locks throughout Metropolitan's facilities, including treatment plants, pumping plants, aqueduct facilities, pressure control structures, pipeline facilities and hydroelectric plants, need to be replaced or modified to ensure security and to reduce opportunities for compromise. The cores in existing locks will be replaced or modified, such that retail locksmiths will not be able to duplicate the keys.

This action appropriates \$630,000 in budgeted funds and authorizes staff to implement lock and key control and modifications at all Metropolitan facilities.

Summary

This action appropriates \$1.928 million in budgeted funds and authorizes four security projects; awards a \$529,350 construction contract to the Fishel Company; and authorizes an agreement in an amount not to exceed \$1.1 million for design and installation of a floating waterway security barrier at the Whitsett Intake Pumping Plant. The total estimate for these four projects is \$3.12 million. However, staff recommends that \$1.192 million of remaining budget be allocated to this work. As a result, the total requested funds under this action are \$1.928 million.

See [Attachment 1](#) for the Abstract of Bids and [Attachment 2](#) for the Financial Statement.

Policy

Metropolitan Water District Administrative Code 5108: Capital Project Appropriation

Metropolitan Water District Administrative Code 8121 (c): Contracts over \$250,000

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

California Environmental Quality Act (CEQA)

CEQA determinations for Options #1 and #2:

Copper Basin Security Fiber Optic Cable Network

To comply with CEQA, Metropolitan, as the Lead Agency, determined that implementing security system improvements at all Metropolitan facilities was categorically exempt (i.e., Class 1, Section 15301; Class 2, Section 15302; and Class 3, Section 15303 of the State CEQA) and approved these security improvements on February 12, 2002. The current board action involves the funding, contracting, and installing of a fiber optic cable network system at Copper Basin for security purposes with no major modifications to the originally approved improvements. Hence, the previous adopted exemptions comply with CEQA and the State CEQA Guidelines, as related to the proposed action. Accordingly, no further CEQA documentation is necessary for the Board to act with respect to the proposed action.

The CEQA determination is: Determine that the proposed action has been previously addressed in the 2002 categorical exemptions and that no further environmental analysis or documentation is required.

Floating Waterway Security Barrier System

To comply with CEQA, Metropolitan, as the Lead Agency, determined that implementing the floating waterway security barrier system at the Intake Pump Plant was categorically exempt (i.e., Class 1, Section 15301 and Class 2, Section 15302 of the State CEQA) and approved this activity on March 6, 2006. The current board action involves the funding, contracting, and installing of this barrier at Intake for security purposes with no major modifications to the originally approved activity. Hence, the previous adopted exemptions comply with CEQA and the State CEQA Guidelines, as related to the proposed action. Accordingly, no further CEQA documentation is necessary for the Board to act with respect to the proposed action.

The CEQA determination is: Determine that the proposed action has been previously addressed in the 2006 categorical exemptions and that no further environmental analysis or documentation is required.

Entry Control Point Standardization and Perimeter Defense

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action consists of basic data collection and resource evaluation activities, which do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. Accordingly, the proposed action qualifies as a Class 6 Categorical Exemption (Section 15306 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under a Categorical Exemption (Class 6, Section 15306 of the State CEQA Guidelines).

Critical Lock Identification and Change-Out

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. In particular, the proposed action consists of awarding an agreement and modifying existing public facilities with negligible or no expansion of use beyond that existing at the time of the lead agency's determination. In addition, the proposed action will not have a significant effect on the physical environment. Accordingly, this proposed action qualifies as 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).

CEQA determination for Option #3:

None required

Board Options

Option #1

Adopt the CEQA determinations and

- a. Appropriate \$1.928 million in budgeted funds;
- b. Authorize implementation of four security projects;
- c. Award a \$529,350 construction contract to the Fishel Company for the Copper Basin Security Fiber Optic Cable Network System; and
- d. Authorize an agreement in an amount not to exceed \$1.1 million to provide a floating waterway barrier system at the Whitsett Intake Pumping Plant, including maintenance for a period of five years. The recommended firm will be discussed during the August 2006 Engineering and Operations Committee meeting.

Fiscal Impact: \$1.928 million of budgeted funds under Approp. 15295

Business Analysis: This option would improve Metropolitan's security by defending against threats identified in Metropolitan's vulnerability assessment.

Option #2

Adopt the CEQA determinations and

- a. Appropriate \$828,000 in budgeted funds;
- b. Authorize implementation of four security projects;
- c. Award a \$529,350 construction contract to the Fishel Company for the Copper Basin Security Fiber Optic Cable Network System; and
- d. Defer entering into an agreement to provide a floating waterway barrier system at the Whitsett Intake Pumping Plant.

Fiscal Impact: \$828,000 of budgeted funds under Approp. 15295

Business Analysis: This option would authorize some improvements in Metropolitan's security but would defer the agreement for the floating waterway barrier. Staff will return with an alternative recommendation for an agreement for the floating waterway barrier system.

Option #3

Do not authorize any of the four security projects.

Fiscal Impact: Unknown

Business Analysis: This option would limit security improvements to those already implemented under previous board actions. It would represent an acceptance of identified vulnerabilities without corresponding efforts to address them.

Staff Recommendation

Option #1


Eddie A. Rigdon
Manager, Water System Operations

7/31/2006
Date


Jeffrey Kightlinger
General Manager

7/31/2006
Date

Attachment 1 – Abstract of Bids

Attachment 2 – Financial Statements (Options #1 and #2)

BLA #4541

The Metropolitan Water District of Southern California

Abstract of Bids Received on July 10, 2006 at 2:00 p.m.

**Specifications No. 1573
Copper Basin Security Fiber Optic
Cable Network System**

The project consists of installing aerial and underground fiber optic cable from Gene Pumping Plant to the Copper Basin Reservoir including cable, interconnect, patch cords, pig tails, connectors, splices, closures, and other cable-related hardware; testing and training

Engineer's Estimate: \$848,300

| Bidder and Location | Total \$ | SBE \$ | SBE % | Met SBE |
|--------------------------------------|-----------------|---------------|--------------|----------------|
| Verizon* Thousand Oaks, CA | \$381,404.44 | N/A | N/A | N/A |
| The Fishel Company Phoenix, AZ | \$529,349.76 | \$389,550.00 | 73.59% | Yes |
| Henkels & McCoy, Inc. Fontana, CA | \$574,805.00 | N/A | N/A | N/A |

*Nonresponsive bid

SBE (Small Business Enterprise) Participation set at 20 percent

N/A – Not Applicable

Financial Statement for the All Facilities - Security System Improvements Program (Option #1)

A breakdown of Board Action No. 4 for Appropriation No. 15295 for the All Facilities - Security System Improvements Program is as follows:

| | Previous Total Appropriated Amount* (Jun. 2003) | Current Board Action No. 4 (Aug. 2006) | New Total Appropriated Amount |
|---------------------------------|--|---|--|
| Labor | \$ 4,213,090 | \$ 735,000 | \$ 4,948,090 |
| Materials and Supplies | 1,385,950 | 304,000 | 1,689,950 |
| Incidental Expenses | 98,650 | 35,000 | 133,650 |
| Professional/Technical Services | 9,420,590 | 1,516,000 | 10,936,590 |
| Operating Equipment | 483,770 | - | 483,770 |
| Contracts | 298,610 | 530,000 | 828,610 |
| Remaining Budget | 1,771,340 | (1,192,000) | 579,340 |
| Total | \$ 17,672,000 | \$ 1,928,000 | \$ 19,600,000 |

*Includes a reallocation of \$478,340 added to the remaining budget and an equivalent overall reduction in other categories to reflect projects completed under budget.

Funding Request

| | | | |
|-----------------------------------|---|----------------------------------|-------------|
| Program Name: | All Facilities - Security System Improvements | | |
| Source of Funds: | Revenue Bonds, Replacement and Refurbishment or General Funds | | |
| Appropriation No.: | 15295 | Board Action No.: | 4 |
| Requested Amount: | \$ 1,928,000 | Capital Program No.: | 15295-T |
| Total Appropriated Amount: | \$ 19,600,000 | Capital Program Page No.: | E-2 |
| Total Program Estimate: | \$ 19,600,000 | Program Goal: | Stewardship |

Financial Statement for the All Facilities - Security System Improvements Program (Option #2)

A breakdown of Board Action No. 4 for Appropriation No. 15295 for the All Facilities - Security System Improvements Program is as follows:

| | Previous Total Appropriated Amount* (Jun. 2003) | Current Board Action No. 4 (Aug. 2006) | New Total Appropriated Amount |
|---------------------------------|--|---|--|
| Labor | \$ 4,213,090 | \$ 735,000 | \$ 4,948,090 |
| Materials and Supplies | 1,385,950 | 304,000 | 1,689,950 |
| Incidental Expenses | 98,650 | 35,000 | 133,650 |
| Professional/Technical Services | 9,420,590 | 416,000 | 9,836,590 |
| Operating Equipment | 483,770 | - | 483,770 |
| Contracts | 298,610 | 530,000 | 828,610 |
| Remaining Budget | 1,771,340 | (1,192,000) | 579,340 |
| Total | \$ 17,672,000 | \$ 828,000 | \$ 18,500,000 |

* Includes a reallocation of \$478,340 added to the remaining budget and an equivalent overall reduction in other categories to reflect projects completed under budget.

Funding Request

| | | | |
|-----------------------------------|---|----------------------------------|-------------|
| Program Name: | All Facilities - Security System Improvements | | |
| Source of Funds: | Revenue Bonds, Replacement and Refurbishment or General Funds | | |
| Appropriation No.: | 15295 | Board Action No.: | 4 |
| Requested Amount: | \$ 828,000 | Capital Program No.: | 15295-T |
| Total Appropriated Amount: | \$ 18,500,000 | Capital Program Page No.: | E-2 |
| Total Program Estimate: | \$ 18,500,000 | Program Goal: | Stewardship |