

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

February 12, 2002 Board Meeting

9-3

Subject

Authorize \$5.429 million to implement security system improvements at all Metropolitan facilities (Approp. 15295) [**Conference with an Officer representing the Los Angeles County Sheriff's Department and/or the Los Angeles Police Department regarding threat to public services or facilities; to be heard in closed session pursuant to Gov. Code § 54957**]

Description

Due to the events of September 11, 2001, Metropolitan implemented heightened security measures. Subsequently, a comprehensive security threat assessment of facilities was conducted by staff to determine the potential risk of physical, chemical and biological threats and to identify necessary modifications and improvements. Control Risks Group, an international security firm, have reviewed and concur with the measures presented in this letter. The recommended projects address the following objectives: improve the security of Metropolitan personnel and property; automate remote water quality sampling and analyses to allow real-time monitoring; and improve our ability to sense intentional water contamination. Three separate projects were recently evaluated and recommended by the Capital Investment Plan (CIP) Evaluation Team as part of the All Facilities – Security Systems Improvements Program. Non-budgeted CIP funds will be utilized to implement additional scope and new projects that have been recently identified. See [Attachment 1](#) for the Detailed Report and [Attachment 2](#) for the Financial Statement.

- **Provide Physical Security Improvements** (\$3.719 million). A security matrix identifying recommended security measures at each facility will be implemented. Improved security measures include alarm, video, and access controls.
- **Provide Screening Along Wheeler Avenue and Balboa Boulevard** (\$685,000). The southeastern side of the Weymouth plant along Wheeler Avenue and the northwestern side of the Jensen plant along Balboa Boulevard are currently exposed to public view. Landscape screening will enhance overall site security.
- **Enhance Water Quality Monitoring Systems** (\$1.186 million). Patrollers currently manually perform water quality sampling at 25 remote sites. Remote water quality monitoring data tied into the existing Supervisory Control and Data Acquisition (SCADA) System will enable quicker operational response to changes in water quality. At each site, real-time pressure, chlorine residual, turbidity, pH, and specific conductivity will be measured to allow for rapid operational response to changes in water quality in the distribution system. Currently, these additional sites will augment 22 sites that remotely monitor some of these water quality parameters. Additional contaminant monitoring equipment and instrumentation at Metropolitan's water quality laboratory will enhance our detection time and analytical capabilities to detect the presence of chemical or biological contaminants.

Consistent with Metropolitan's approach of managing projects in the most cost-effective manner and providing opportunities for staff, Metropolitan forces will perform those tasks that are critical to overall program success including project management, preparation of specifications, and field coordination. Existing consultant agreements will be used for the preparation of plans and specifications for landscaping and irrigation for the screening along Wheeler Avenue and Balboa Boulevard and for overall security improvements at Metropolitan.

Policy

Metropolitan Water District Administrative Code § 5108: Capital Project Appropriation,
Metropolitan Water District Administrative Code § 8113: Construction Contract Award, and
Metropolitan Water District Administrative Code § 9100(b): Risk Management.

California Environmental Quality Act (CEQA)

CEQA determination for Staff Recommendations:

- **Provide Physical Security Improvements**

The proposed action is categorically exempt under the provisions of CEQA. The overall project activities involve the funding, final design, and minor alterations, reconstruction or replacement of existing public facilities along with the construction of minor appurtenant structures for enhanced security purposes with no expansion of use and no possibility of significantly impacting the physical environment. As such, the proposed action qualifies under Class 1, Class 2, and Class 3 Categorical Exemptions (Sections 15301, 15302, and 15303) of the State CEQA Guidelines.

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under three Categorical Exemptions (Class 1, Section 15301; Class 2, Section 15302; and Class 3, Section 15303) of the State CEQA Guidelines.

- **Provide Screening Along Wheeler Avenue and Balboa Boulevard**

The proposed action is categorically exempt under the provisions of CEQA. The project activity involves the funding, final design, and minor alterations (i.e., new landscaping and supporting irrigation system) in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees. As such, the proposed action qualifies under a Class 4 Categorical Exemption (Section 15304) of the State CEQA Guidelines.

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under a Categorical Exemption (Class 4, Section 15304) of the State CEQA Guidelines.

- **Enhance Water Quality Monitoring Systems**

The proposed action is categorically exempt under the provisions of CEQA. The project activities involve the funding, final design, and minor alterations of existing public facilities as related to emergency water quality monitoring with no expansion of use and no possibility of significantly impacting the physical environment. As such, 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.

Staff Recommendation

Adopt the CEQA determinations for all projects described herein and

- a. Appropriate an increase of \$5.429 million to a total of \$6.429 million;
- b. Authorize the Chief Executive Officer to have all work performed; and
- c. Delegate to the Chief Executive Officer the authority to award competitively bid contracts in an amount not to exceed \$2 million per contract.

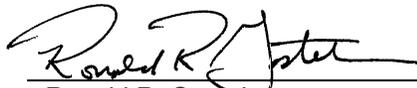
Fiscal Impact: \$5.429 million of non-budgeted CIP funds under Appropriation No. 15295. If the Board approves this recommendation, the fiscal year 2001/02 CIP expenditure plan will be adjusted as needed.



Will T. Wicke
Manager, Water System Operations

1/30/2002

Date



Ronald R. Gastelum
Chief Executive Officer

1/30/2002

Date

Attachment 1 – Detailed Report

Attachment 2 – Financial Statement

BLA #1424

Detailed Report

In September 1996, the Board of Directors approved Appropriation No. 15295 in the amount of \$1 million for installing access control and surveillance systems for Metropolitan's facilities. Metropolitan conducted a pilot security installation at the Henry J. Mills Filtration Plant, which proved successful for security concerns identified at that time. A plan was developed to implement similar security systems at additional Metropolitan facilities, as appropriate, over a three-year period. To date, approximately \$500,000 has been expended on these projects.

Due to events of September 11, 2001, Metropolitan implemented heightened security measures. Metropolitan performed a comprehensive security threat assessment of its facilities to determine the potential risk of physical, chemical and biological threats.

Metropolitan has taken several immediate steps to secure its water conveyance, treatment, and distribution facilities. The frequency of water sampling has been increased, public access has been restricted, aerial and ground patrols of pipelines and aqueducts are being performed 7 days a week, and additional security forces are on duty 24 hours per day. However, additional protective action is deemed necessary.

Provide Physical Security Improvements (\$3.719 million)

A Security Analysis Committee has been established and is performing a comprehensive review and evaluation of Metropolitan's system to assess and prioritize vulnerability. This team includes Water System Operations (WSO) staff with expertise in the various operations of Metropolitan's system. Individual sub-groups were formed at each field location to conduct a security survey of the area, report the current security measures in place, and submit recommendations for enhancements to the Security Analysis Committee.

The Security Analysis Committee was charged with the following responsibilities:

- Identifying key facilities of strategic and operational importance that could be likely targets for terrorist attacks.
- Comparing and ranking the risk and consequence of terrorist attacks at those facilities.
- Recommending new security measures for each facility and estimating costs.
- Estimating the risk reduction at each facility if the recommended security measures were implemented.

The Committee has developed a methodology to measure and quantify the vulnerability of the facilities using a risk formula that assigns ratings to the facilities based on access, location, raw versus treated water, impact of disruption and type of attack (physical, chemical and/or biological).

To date, a security matrix has been developed covering Metropolitan facilities. The matrix identifies recommended security measures at each facility, priority rankings, costs and estimated effectiveness.

Actions and Milestones

- February 2002 – Board authorization and funding
- April 2002 – Prepare plans and specifications for competitive bid advertisement
- July 2002 – Award contracts for equipment purchases and installation
- February 2003 – Begin testing of equipment
- June 2003 – Complete installation and startup

Provide Screening Along Wheeler Avenue and Balboa Boulevard (\$685,000)

An additional security recommendation is to screen the Wheeler Avenue side of the F.E. Weymouth Filtration Plant and the Balboa Boulevard side of the Joseph Jensen Filtration Plant to limit views of the plants' interiors. The project areas are adjacent to residential development. At the Weymouth plant, the key structural and operational components and the heavy industrial and material storage areas of the plant are clearly visible along the entire length of the undeveloped Wheeler Avenue frontage, from the plant entrance gate down to the plant's southern property line. At the Jensen plant, the entire site is visible from the higher Balboa Boulevard overlook near San Fernando Road.

The project consists of planting trees and shrubs and installing automatic, below-grade irrigation systems to provide security screening of the Weymouth plant and the Jensen plant. Security screening is required along a 2,500-linear-foot stretch of Wheeler Avenue and a 2,000-linear-foot stretch along Balboa Boulevard. The landscape screening will obscure and soften the views.

Actions and Milestones

- February 2002 – Board authorization and funding
- March 2002 – Prepare plans and construction specifications for competitive bid advertisement
- April 2002 – Award construction contracts
- July 2002 – Complete construction

Enhance Water Quality Monitoring Systems (\$1.186 million)

To improve Metropolitan's ability to quickly detect changes in water quality throughout the distribution system, a real-time water quality monitoring system is proposed for implementation as part of this security enhancement program. This project includes design, purchase of equipment, fabrication, and installation of a remote water quality monitoring system at 25 remote sites. Data from these 25 sites are representative of the water quality in the entire distribution system. At each site, real-time pressure, chlorine residual, turbidity, pH and specific conductivity data will be tied into the existing SCADA system.

The system will provide the Eagle Rock Operations Control Center and the local Area Control Centers with real-time water quality information throughout the distribution system. This information will allow quick operational response to changes in water quality resulting from acts of terrorism, earthquakes, pipeline breaks, other contaminant intrusion, loss of chlorine residual or other causes.

In addition, improved water contaminant monitoring equipment will enhance our response time to intentional or accidental raw and treated water contamination. These measures include the purchase and installation of "early warning" instrumentation for sensing the possibility of intentional contamination of water with biological and chemical agents. Monitoring equipment will be located at strategic locations throughout Metropolitan's system, and additional instrumentation will be placed at the Water Quality Laboratory for protection of laboratory personnel and enhanced analytical capabilities.

While enhancing in-house capabilities to respond to contamination emergencies, Metropolitan will utilize, as required, other specialized laboratories, state and/or federal agencies to address radiological, biological and chemical agents for which we have limited or restricted capabilities.

Actions and Milestones

- February 2002 – Board authorization and funding
- March 2002 – Prepare plans and specifications for competitive bid advertisement
- June 2002 – Award contracts for equipment purchases

- August 2002 – Begin testing of prototype system
- September 2002 – Begin construction and installation of system
- March 2003 – Complete installation and startup

Attachment 2 contains the breakdown of the total estimated costs for these projects. These projects were reviewed by the CIP evaluation team and recommended to proceed. The CIP will be adjusted to reflect the appropriate amount.

Financial Statement for All Facilities - Security Systems Improvements

A breakdown of Board Action No. 2 for Appropriation No. 15295 for additional security system improvements at all facilities is as follows:

	Board Action No. 1 <u>(Sep. 1996)</u>	Board Action No. 2 <u>(Feb. 2002)</u>
Labor	72,500	1,130,000
Materials and Supplies	927,500	3,246,000
Incidental Expenses		15,000
Professional/Technical Services		120,000
Administrative Charges		584,000
Equipment Use		15,000
Contracts		480,000
Remaining Budget		839,000
Total	<u>\$ 1,000,000</u>	<u>\$ 6,429,000</u>

FUNDING REQUEST

Program Name:	All Facilities – Security Systems Improvements		
Source of Funds:	Construction Funds (possibly General Obligation, Revenue Bonds, Pay-As-You-Go Fund)		
Appropriation No.:	15295	Board Action No.:	2
Requested Amount:	\$ 5,429,000	Capital Program No.:	15295-M
Total Appropriated Amount:	\$ 6,429,000	Capital Program Page No.:	E-3
Total Program Estimate:	\$ 6,429,000	Project Goal:	M- Risk Management