

- **Board of Directors**  
**Engineering and Capital Programs Committee**

August 21, 2007 Board Meeting

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7-4

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**Subject**

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Appropriate \$1,235,000; and authorize agreement with ClearOrbit in an amount not to exceed \$720,000 for an inventory bar-coding system at eight Metropolitan warehouses (Approp. 15411)

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**Description**

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Metropolitan operates eight materials warehouses throughout its service area. These warehouses maintain a rolling inventory assessed at over \$6.5 million and provide field staff with safety and janitorial supplies, building and fabrication materials, and various other items. An internal Warehouse Operations Assessment was conducted to gain an understanding of Metropolitan's warehouse operations and to identify potential opportunities for improvement. This assessment identified the following areas for improvement: lack of centralized oversight of warehouse functions; lack of an overall warehouse strategy; varying processes and procedures among locations; and absence of commonly used automation. The latter finding relates to basic warehouse automation such as a bar-coding system, which provides a way to automatically identify items. Currently, receiving and issuing inventory are manual operations, which are time-consuming and subject to errors.

In January 2006, the function of Warehouse Operations was transferred to the Corporate Resources Group and consolidated under one manager to centralize oversight and management of inventory, to standardize procedures, and to launch a Warehouse Improvement Program. Since the transfer, a number of improvements have been undertaken including: development of auto-source contracts for frequently used inventory items; centralization of receiving and inspection of designated critical-use items; standardization of key storekeeping procedures; implementation of a formal internal Storekeeping Academy; launching of an expediting program to speed up the receipt of ordered goods; and distribution of weekly inventory transaction reports to managers.

To complement these process improvements, a key initiative of the Warehouse Improvement Program is to implement bar-coding technology for inventory tracking. The introduction of this well-known technology is essential for increasing the efficiency of the field warehouses. The planned system will convert a number of labor-intensive, manual data entry tasks into automatic electronic entry. It will also allow storekeepers to electronically input information into the Oracle Inventory System via handheld scanners from any location in the warehouse, i.e., the loading dock and stocking aisles, rather than requiring them to return repeatedly to the computer at the service counter.

Six of the eight warehouses are staffed by a single storekeeper. The planned technology will allow these employees to more quickly receive incoming shipments and issue goods to field staff. For example, storekeepers will be able to scan products being issued rather than type data about each product. Storekeepers will collaborate with Water System Operations staff to identify, stock and issue many of the parts and supplies that are required by field mechanics, and which are currently obtained from offsite vendors. Labor timesavings will result because field mechanics will be able to focus more on maintenance and repairs, leading to increased wrench time. Staff estimates that the introduction of bar-coding technology will allow storekeepers to process 20 percent, or 8,200 more transactions per year, without an increase in staffing. An increase in issuing transactions identifies a productivity gain for storekeepers allowing them to more effectively support staging materials required for preventive maintenance activities.

The planned warehouse bar-coding system includes: Bar-code creation software; label printers; charging cradles; mobile bar-code handheld devices; and wireless access points. The devices will interface with Metropolitan's Oracle Inventory Module in "real-time," providing immediate accuracy to the inventory. A more accurate inventory will accomplish the following:

1. Ensure that items shown as available on the inventory list are actually available in the quantities shown. Inaccurate inventory counts can result in delays in filling field requests.
2. Enhance warehouse inventory integrity by allowing storekeepers to quickly discover and pinpoint incidents of displaced stock.
3. Enable storekeepers to better track item usage. More accurate tracking of inventory will assist the storekeeper in making necessary inventory adjustments so that items that need to be available to field personnel are stocked in the quantities required to support repair and maintenance activities.

Staff recommends that ClearOrbit provide the specialized consulting services to implement inventory bar-coding for Metropolitan, and that the ClearOrbit bar-coding system be used. ClearOrbit was selected through a competitive process in response to Request for Proposals No. 825, which was issued in May 2007. The ClearOrbit bar-coding system is recommended because it integrates well with the Oracle Inventory Module used by Metropolitan. ClearOrbit is recommended to provide the consulting services to implement the system based on the firm's experience in successfully installing this system for other organizations and its superior product knowledge of the software.

Implementation of the new bar-coding system at the eight warehouses will take approximately 12 months, with the initial implementation to be conducted at the La Verne facility. La Verne was chosen due to the size and complexity of its inventory. Once the La Verne warehouse implementation has been successfully completed, the process changes have been documented, and the implementation process has been streamlined, the rollout will continue to the balance of the warehouses.

This action appropriates \$1,235,000 in budgeted funds, authorizes implementation of ClearOrbit's inventory bar-coding system, and authorizes an agreement with ClearOrbit in an amount not to exceed \$720,000. This project has been evaluated and recommended by Metropolitan's Capital Investment Plan Evaluation Team and IT Guidance Committee. Funds have been included in the FY 2007/08 capital budget.

See [Attachment 1](#) for the Financial Statement.

## **Policy**

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Metropolitan Water District Administrative Code Section 5108: Capital Project Appropriation  
Metropolitan Water District Administrative Code Section 8121(a): Contracts Over \$250,000

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

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CEQA determination for Options #1 and #2:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. In particular, the proposed action consists of the maintenance, operation or minor alteration of existing equipment and facilities with negligible or no expansion of use beyond that existing at the time of the lead agency's determination. In addition, it will not have a significant effect on the 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).

**Board Options**

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**Option #1**

Adopt the CEQA determination and

- a. Appropriate \$1,235,000 in budgeted funds; and
- b. Authorize an agreement with ClearOrbit in an amount not to exceed \$720,000 to acquire and implement ClearOrbit's inventory bar-coding system in eight Metropolitan warehouses.

**Fiscal Impact:** \$1,235,000 in budgeted funds under Approp. 15411

**Business Analysis:** This option would implement inventory bar-coding at eight Metropolitan warehouses, thereby improving the accuracy of the inventory records, streamlining the supply chain process and increasing support for preventive maintenance activities.

**Option #2**

Do not implement an inventory bar-coding system at Metropolitan's warehouses.


**Fiscal Impact:** No expenditure of budgeted capital funds

**Business Analysis:** This option would continue use of manual inventory processes and forego an opportunity to improve inventory processes, improve accuracy of Metropolitan's actual inventory and increase support for preventive maintenance activities.

**Staff Recommendation**

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Option #1

  
 Roy L. Wolfe  
 Manager, Corporate Resources

8/3/2007  
 Date

  
 Jeffrey Kightlinger  
 General Manager

8/6/2007  
 Date

**Attachment 1 – Financial Statement**

BLA #4831

**Financial Statement for the Business, Finance and Human Resources Program**

A breakdown of Board Action No. 7 for Appropriation No. 15411 is as follows:

	<b>Previous Total Appropriated Amount (June 2007)</b>	<b>Current Board Action No. 7 (Aug. 2007)</b>	<b>New Total Appropriated Amount</b>
Labor	\$ 5,130,710	\$ 234,000	\$ 5,364,710
Materials and Supplies	2,562,345	161,000	2,723,345
Incidental Expenses	255,000	20,000	275,000
Professional/Technical Services	8,034,000	720,000	8,754,000
Remaining Budget	1,172,175	100,000	1,272,175
<b>Total</b>	<b>\$ 17,154,230</b>	<b>\$ 1,235,000</b>	<b>\$ 18,389,230</b>

**Funding Request**

<b>Program Name:</b>	ITSP – Business, Finance & Human Resources Program		
<b>Source of Funds:</b>	Revenue Bonds, Replacement and Refurbishment or General Funds		
<b>Appropriation No.:</b>	15411	<b>Board Action No.:</b>	7
<b>Requested Amount:</b>	\$ 1,235,000	<b>Capital Program No.:</b>	15411
<b>Total Appropriated Amount:</b>	\$ 18,389,230	<b>Capital Program Page No.:</b>	E-34
<b>Total Program Estimate:</b>	\$ 25,969,000	<b>Program Goal:</b>	C – Customer Service