

**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

7-2

September 21, 1998

**To:** Board of Directors (Budget and Finance Committee--Action)  
 (Engineering and Operations Committee--Action)  
 (Information Systems Ad Hoc Committee--Action)

**From:** General Manager

**Submitted by:** Edward G. Means  
 Deputy General Manager

*[Handwritten signature: J. K. ...]*  


---

*[Handwritten signature: Edward G. Means]*

**Subject:** Award a Consulting Contract to Inventory and Analyze Metropolitan's Embedded Computer Systems and Delegate to the IS Ad Hoc Committee Authority to Approve the Award of Contracts Not to Exceed \$700,000 for Correction of Year 2000 Related Hardware/Software Problems.

### **RECOMMENDATION(S)**

---

In order to expeditiously handle the Year 2000 Project, it is recommended that the Board:

1. Authorize the General Manager to award a contract to Solutions Plus in the maximum amount of \$400,000 for the inventory and analysis of the entire District's embedded systems.
2. Delegate to the IS Ad Hoc Committee authority to approve the award of contracts directly related to fast-track resolution of issues related to Metropolitan's Year 2000 Project, not to exceed \$700,000 per contract.

### **EXECUTIVE SUMMARY**

---

This authorization is required for the timely and successful completion of the Year 2000 Project. Metropolitan is accelerating its effort in identifying, remediating and testing the large number of systems and devices that are critical to the primary mission of the District.

It is expected that most of the work on this project will be expensed. In the event that hardware or capital assets must be replaced to mitigate Y2K problems, staff will return to the Board for authorization of a capital appropriation in the amount required.

Due to the extremely tight time constraints on this project, IS Ad Hoc Committee authority is required, on an urgent basis, to approve the award of contracts for the Year 2000 Project. In areas/situations where time permits, normal selection and award processes will be followed. When time does not permit, contracts will go through an expedited RFP and selection process with the IS Ad Hoc Committee approving the award of the contract. It is not expected that this authority will be exercised on a frequent basis.

## **JUSTIFICATION**

---

Metropolitan is faced with numerous risks and problems associated with the Year 2000 problem. These risks and problems have been documented by the TAVA/R.W. Beck Year 2000 report.

## **ALTERNATIVE(S) TO PROPOSED ACTION**

---

### **Manage Year 2000 problems with existing staff**

Due to the issues outlined in the previous section, this is not considered a viable alternative.

## **ACTIONS AND MILESTONES**

---

- Complete business systems upgrades (Oracle 10.7 and UNIX x.x)—December 1998
- Complete embedded systems inventory and analysis—December 1998
- Complete various secondary systems evaluations—April 1999
- Complete embedded systems remediation—May 1999
- Complete business systems certification—June 1999
- Complete secondary systems remediation—July through August 1999
- Complete embedded systems certification testing—September 1999
- Complete secondary systems certification testing—September through December 1999

## **CONTRACT SUMMARY**

---

<b>Contract Status:</b>	New	<b>Type of Selection:</b>	Expedited RFP Process
<b>Contract Form:</b>	Professional Services	<b>Contractors Requesting Plans:</b>	N/A
<b>Contract Type:</b>	Time and Materials	<b>Bids Submitted:</b>	2
<b>Evaluation Criteria:</b>	Evaluations based on organizational qualifications, Year 2000 expertise, availability of resources, and recent successful engagement with a water utility.		

## **MBE / WBE**

---

Anticipated levels of participation for minority business enterprise (MBE) and women business enterprise (WBE) have not been established for this project.

## **DETAILED REPORT**

---

Due to computer programming shortcomings, it is possible that computer systems and other equipment, which rely on programmable code or circuitry, may experience interruptions or failures on or after January 1, 2000. The Information Systems sub-group (under Finance and Business Services) performed a Year 2000 (Y2K) review effort that began in 1996 and focused on Metropolitan's business systems. This effort included an inventory of application software used in the District, and in 1997, the development of standard language for contracts and purchases to warrantee Year 2000 compliance. In May 1998, the Finance and Business Services Division commissioned a high-level risk audit to identify Year 2000 exposure and to recommend next steps. This audit was performed by three highly qualified risk engineers from TAVA/R.W. Beck and included a review of embedded chip technology deployed at Metropolitan. The Information Systems sub-group was impressed by the diligence of their effort and by their ability to work effectively with all levels of MWD staff at Cal Plaza and in the field offices. The Information Systems sub-group believes their report warrants serious consideration. The recommendations are summarized below.

### TAVA/R.W. Beck Report Recommendations:

- Establish a Metropolitan Water District Year 2000 Task Force with representation from various operational, business system and support areas. This Task Force should report directly to executive management.
- Institute a formal process to identify and document all suspect microprocessor-based hardware and software utilized within the various operational, business and support facilities.
- Institute a process to assess and document compliance assessment of inventory.
- Develop and implement formal system and component testing procedures to validate hardware and software compliance status.
- Develop an audit trail for all documentation related to inventory, assessment of inventory and compliance test data.
- Identify critical suppliers of goods.
- Develop contingency plans for failure of critical systems.

Other agencies are devoting significant resources to the Y2K problem. The Los Angeles Department of Water and Power has recently awarded a \$17M contract for investigation and remediation of Y2K problems. They are expecting cost of Y2K compliance around \$56M. Los Angeles County estimates that around \$100M may be required to solve their problems. Los Angeles Unified School District is anticipating approximately \$50M to address their issues.

Metropolitan staff is currently estimating that Y2K compliance efforts will require approximately \$7M. When inventory and analysis efforts are completed, a more refined estimate can be developed. This lesser amount is due, in part, to Metropolitan's recent modernization of in-frame systems.

Subsequent to receiving the TAVA/R.W. Beck recommendations on August 3, 1998, Deputy General Manager Edward G. Means III established a Year 2000 Project Office and appointed a project manager. The Year 2000 Project Office reports directly to the Deputy General Manager and is supported by the Audit and Legal Departments.

The Year 2000 Project Office has established a project team with representatives from all divisions and has as its steering committee the Information Technology Governance Council (ITGC). Reporting to the Board on Year 2000 progress will be on a bi-monthly basis through the IS Ad Hoc committee.

One of the highest priorities for the Year 2000 Project is to complete the embedded systems inventory and evaluate the readiness of Metropolitan's critical operational systems. These are the systems that have primary responsibility for the treatment, delivery and billing of water. Within Metropolitan there are approximately 35,000 devices containing embedded systems. To this end, the Year 2000 Project Office has conducted an expedited RFP and selection process to identify a qualified contractor to complete this inventory and evaluation prior to mid December 1998. The recommended contractor, from a final list of two, is Solutions Plus, one of the leading experts in this field.

A major concern of the Year 2000 Project Office is the extremely short, non-flexible time-frame in which the project must be completed. There will be times, between identifying problem areas and contracting for the solution, when going through Metropolitan's formal procurement/contracting/approval process will present unacceptable delays. As time goes on, those contractors with the skills necessary to deal with the various Year 2000 issues will be more difficult to find and engage. There will be times when the Project Office will have to act in an expedited manner and will need the IS Ad Hoc Committee's authority to enter into contracts that exceed the General Manager's approval authority of \$250,000. In the event this authority is exercised, the action(s) will be reported to the full Board at the earliest opportunity.

John R. Wodraska

JRW:ms  
Y2KBRD3.doc

Attachment(s)

Year 2000 Project  
Estimated Cost Worksheet

Attachment to Board letter 7-2  
Office of the General Manager

	1998	1999	2000	Totals
<b>Internal labor</b>	293,930	1,397,500	736,500	<b>\$2,427,930</b>
<b>Hardware</b>				
Various Hardware Upgrades less Than \$500	25,000	25,000	25,000	<b>\$75,000</b>
Embedded System/Instruments Contingency Upgrades	500,000	1,500,000		<b>\$2,000,000</b>
Totals	525,000	1,525,000	25,000	<b>\$2,075,000</b>
<b>Software</b>				
Various Software Upgrades Less Than \$250,000	500,000	500,000		<b>\$1,000,000</b>
Operating System Upgrades	100,000	50,000		<b>\$150,000</b>
Network Upgrades	50,000	25,000		<b>\$75,000</b>
LIMS System Upgrade	250,000			<b>\$250,000</b>
Totals	900,000	575,000		<b>\$1,475,000</b>
<b>Expenses</b>				
Project Office	240,000	240,000	100,000	<b>\$580,000</b>
Incidentals	15,000	25,000	15,000	<b>\$55,000</b>
Supplies, etc.	50,000	50,000	50,000	<b>\$150,000</b>
Totals	305,000	315,000	165,000	<b>\$785,000</b>
<b>O&amp;M Totals</b>	<b>\$2,023,930</b>	<b>\$3,812,500</b>	<b>\$926,500</b>	<b>\$6,762,930</b>

43216