

● **Board of Directors**
Asset, Real Estate and Infrastructure Policy Committee

September 9, 2003 Board Meeting

8-7

Subject

Authorize \$4.377 million in budgeted Capital Investment Program funds to establish an Enterprise Geographic Information System (Approp. 15376)

Description

This letter requests appropriation of budgeted funds in the amount of \$4.377 million for phase one of the Enterprise Geographic Information System (EGIS) project. Phase one will establish an EGIS infrastructure that enables electronic sharing of mapping, real property, and facility data throughout Metropolitan. It includes design, development and implementation of an EGIS that will allow Metropolitan's business units to digitally share, analyze, and output information regarding Metropolitan's 8,000 property holdings, related maps and other facility data. Once the infrastructure is created in phase one of this project, phase two will develop new GIS-based applications that access the integrated GIS database. This project was recommended by the Information Technology (IT) strategic planning consultant and was included in the Information Technology Strategic Plan. Additionally, the Capital Investment Program (CIP) Evaluation Team has reviewed and recommended approval of this project. Funding for phase one of this project was included in the capital budget for FY 2003/04.

EGIS access will be available to authorized staff via PCs using a Web browser (i.e., Microsoft Internet Explorer). The project encompasses design and development of a large, centralized shared GIS database and the initial conversion of key existing map layers and related property management and asset management data. The EGIS will integrate real property and related data from existing systems capturing this information. The effort will also include developing a means to periodically refresh and update the data. Data to be included will be:

- Metropolitan water distribution system pipeline and facility alignments from the Infrastructure Mapping and Data Collection Project
- Metropolitan real property fee and easement boundaries from the Property Database and Mapping Project
- Revenue lease boundaries and related lease, license and entry permit information
- Aerial photography (with one-half meter resolution) for most of southern California
- Road network, such as Thomas Brothers
- United States Geological Survey maps
- Physical geography - elevation models, water boundaries, etc.
- Land use classifications
- County assessor parcels within 500 feet of Metropolitan facilities
- City, county, water agency boundaries, and other geopolitical boundaries

Implementation of the EGIS will provide several benefits to Metropolitan. First, it will reduce data redundancy and the associated issues. It will provide a single, centrally updated source for all digital map layers and related information which will reduce data redundancy and associated issues. Past GIS efforts have created multiple, project-based GIS databases which presented issues of data sharing, data duplication and data currency. EGIS will also enable fast and easy Web-based access to digital maps for all authorized Metropolitan staff. Presently, most business units have only limited access to Metropolitan's mapped data, often relying on knowledge of the experienced workforce. Current efforts to respond to map requests or to obtain required map information are often labor-intensive with slow turnaround. Additionally, the more advanced users will be able to access the same GIS database to perform sophisticated geographic analysis and modeling using advanced software capabilities.

These capabilities will assist Metropolitan staff in completing increasingly complex work in urbanized areas, requiring more extensive analysis and faster response times.

EGIS will simplify access to information resulting in staff productivity gains. Considerable effort is currently expended in supporting mapping requests from the individuals who patrol our water delivery system. EGIS will enable such requests to be easily satisfied by accessing the integrated GIS database. Another example is in the time spent in accessing property management information. Currently, fee/easement and lease data are stored in tabular form, requiring users to enter complex parcel and leasing keys to access the information. The EGIS project will provide a direct means to access the information by simply clicking on a specific property on a digital map. A third example is time spent in locating and accessing engineering drawings that pertain to particular elements of our water system. These are stored in the Electronic Document Management System (EDMS) and currently require entry of a lengthy document key to access a specific drawing. EGIS will allow authorized staff to easily and quickly view engineering drawings related to a property or facility by simply clicking on that property or facility on the digital map. An overall return-on-investment analysis was conducted for phase one of this project, which shows that benefits will exceed the initial investment within five years.

Attachment 1 is a detailed financial statement.

Policy

Metropolitan Water District Administrative Code § 5108: Capital Project Appropriation
Metropolitan Water District Administrative Code § 8113: Award of Contracts over \$250,000

California Environmental Quality Act (CEQA)

CEQA determination for Staff Recommendation:

The proposed actions are not defined as a project under CEQA because they involve continuing administrative activities, such as purchases for supplies, general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed actions are not subject to CEQA because they involve other government fiscal activities which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines).

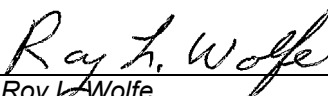
The CEQA determination is: Determine that the proposed actions are not subject to CEQA pursuant to Sections 15378(b)(2) and 15378(b)(4) of the State CEQA Guidelines.

Staff Recommendation

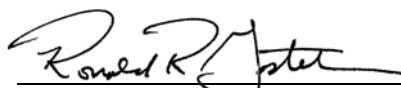
Adopt the CEQA determination and

- a. Appropriate \$4.377 million; and
- b. Authorize the expenditure of \$4.377 million to establish an Enterprise Geographic Information System.

Fiscal Impact: \$4.377 million of budgeted CIP funds


 Roy L. Wolfe
 Manager, Corporate Resources

8/7/2003
 Date


 Ronald R. Gastelum
 Chief Executive Officer

8/22/2003
 Date

Attachment 1 – Financial Statement

BLA #2338

Financial Statement for Enterprise Geographic Information System (EGIS)

A breakdown of Board Action No. 2 for Appropriation No 15376 to implement the Enterprise Geographic Information System is as follows:

	<u>Previous Board Action No. 1 (September 2001)</u>	<u>Current Board Action No. 2 (September 2003)</u>	<u>New Total Appropriated Amount</u>
Labor	\$ 144,500	\$1,569,180	\$1,713,680
Materials and Supplies	\$1,125,300	\$538,250	\$1,663,550
Incidental Expenses	0	\$16,000	\$16,000
Professional/Technical Services	0	\$1,855,200	\$1,855,200
Remaining Budget	\$64,200	\$398,370	\$462,570
Total	\$1,334,000	\$4,377,000	\$5,711,000

Funding Request

Program Name:	ITSP-Infrastructure Program		
Source of Funds:	Pay-As-You-Go Fund		
Appropriation No.:	15376	Board Action No.:	2
Requested Amount:	\$4,377,000	Capital Program No.:	15376-I
Total Appropriated Amount:	\$5,711,000	Capital Program Page No.:	E-46
Total Program Estimate:	\$28,090,000	Program Goal:	Reliability & Efficiency