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**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
EXECUTIVE SECRETARY

A handwritten signature in black ink, appearing to read "David E. Duff".

March 1, 1995

To: Board of Directors (Finance and Insurance Committee--Information)  
(Water Problems Committee--Information)  
(Executive Committee--Information)

From: General Manager

Subject: Distribution and Resource Systems Modeling Requirements to  
Implement the Integrated Resources Plan and the Long-term  
Resource Management Plan

Report

As Metropolitan proceeds with the implementation of the Integrated Resources Plan (IRP) and its Long-term Resource Management Plan, more detailed and refined analysis of Metropolitan's supply availability and distribution system is required. Therefore, a comprehensive distribution system routing model is needed to support management decisions regarding system operations and resource investment strategies.

The Resource Plan will identify ways Metropolitan can develop supply resources and operate its system in order to achieve the goals identified in the IRP. To implement the long-term plan, important resource and operational decisions will need to be made on a regular basis in order to efficiently use available local and imported water supplies. Some examples of the types of decisions that will need to be made include: (1) where and when surplus imported water would be stored; (2) when Metropolitan should exercise its water transfer option agreements; (3) determine the best way to route imported water to maximize the use of local groundwater basins for storage; and (4) how best to use storage and distribution system facilities to ensure the highest practical water quality for Metropolitan's member agencies.

During Phase I and II of the IRP, a resource simulation model (IRPSIM) was developed to address supply reliability and evaluate storage on a regional basis. IRPSIM is not designed to provide detailed distribution system analysis and, therefore, is not sufficient to address the questions described above. A comprehensive distribution system routing model, linked to the resource and demand simulation models in IRPSIM, will provide Metropolitan the capability to better analyze the impacts of, and make recommendations regarding:

- Distribution system improvements
- Blending and resultant total dissolved solids concentration of imported water

- Distribution system capacity to deliver imported water to groundwater storage
- Coordinated groundwater and surface storage operations
- Improved SWP operations incorporating the recent Bay/Delta Accord and State Water Project contract negotiations
- Operational and capital improvement cost reductions

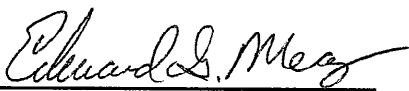
The preliminary scope of work for this effort will involve reviewing Metropolitan's IRP resource model, reviewing the State Water Project and Colorado River Aqueduct models, reviewing the District's current distribution models, and developing the new model. It is anticipated that the entire effort will take 18 months to complete. The principal router will be completed within the first 6 months to ensure early implementation of coordinated storage operations and to facilitate Bay/Delta and SWP contract negotiations. Graphical interfaces and reporting tools will follow. The Planning & Resources and Operations Divisions will collaborate on this important effort.


A Request for Proposals (RFP) will be prepared to solicit statements from qualified consultants. The RFP process will strongly encourage participation of minority-owned and women-owned business enterprises according to adopted Metropolitan policy. Staff will present the recommended consultant(s) to your Board in April and seek authorization to enter into agreement with the selected consultant(s).

Recommendation


For information only.

John R. Wodraska  
General Manager

By:   
Edward G. Means  
Chief of Operations

By:   
Debra C. Man, Chief  
Planning and Resources

Concur:

  
John R. Wodraska  
General Manager