

**WEST BASIN MUNICIPAL WATER DISTRICT**

**JANUARY 7, 2004 - Water Resources**

McDonald, Little

**JANUARY 26, 2004 - Board Meeting**

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Approved by: Darryl G. Miller

INFORMATION CALENDAR

RECYCLED WATER ENERGY EVALUATION  
DEPARTMENT OF WATER RESOURCES

SUMMARY:

West Basin is jointly financing two studies which are part of a Department of Water Resources (DWR) program. A description of these two studies and progress to date are described below:

Salt Management Guide

In addition to \$20,000 from DWR, both West Basin and Central Basin will be contributing funds to this Project. This Project will evaluate and recommend various landscape management practices to address salinity issues. Although, the WasteReuse Foundation (WRF) has conceptually approved this Project for funding, staff is working with various other agencies to secure additional finances. This will enhance the Project's value. Staff has also assembled a research team of various University Professors and Salinity experts, and recommended this team to the WRF for approval, while refining the "Scope of Work". Staff hopes that this project can begin by Spring of 2004, and should last 1-2 years.

Comparison of Nanofiltration and Reverse Osmosis in Terms of Water Quality and Operational Performance for Treating Recycled Water

This Project is being funded by DWR \$20,000, West Basin \$96,000, Water Replenishment District \$20,000, American Water Works Association Research Foundation (AwwaRF) \$100,000, and the WasteReuse Foundation (WRF) \$100,000. This Project will be conducted by the Colorado School of Mines over a 2-year period. Since August, staff coordinated between the Colorado School of Mines, and AwwaRF to submit the Project proposal, address proposal comments, and finalize the Project details. In December, AwwaRF issued a formal approval and funding award to this Project. Subsequently, staff has been finalizing contract and budget specifications with the intent to start the Project in January of 2004.

Additionally, the DWR program includes three studies solely financed by DWR and work is performed via a Central Basin contract. Data from both West Basin and Central Basin are included in parts of the studies. These studies will be presented at the WasteReuse Association's 2004 California Section Annual Conference in February. Below is a brief description of each study:

Study on the Energy Requirements to Import Water Compared with Recycling Water Desalinating Water, and Pumping Water

Robert Wilkinson, PhD, a professor at the University of California-Santa Barbara, is conducting a study that compares the relative energy cost to import water, recycled water, pump groundwater, and desalinate water. The study includes each water supply from the source, through treatment, and ending in the purveyor's system. A report on this study is included as Exhibit "A".

Use of Title 22 Water Use in Refineries

Puckorius & Associates is conducting a study that examines the energy and economic benefits refineries experience due to recycled water use in boiler feed and cooling towers. A report on this study is included as Exhibit "B".

Analysis of Benefits of Recycled Water Use in Dye Houses

Water 3 Engineering, Inc. is responsible for a study illustrating the potential benefits of using recycled water in dye houses. Central Basin staff has provided potable and recycled water quality data for constituents that could potentially affect the dyeing process. A report on this study is included as Exhibit "C".

FISCAL IMPACTS:

The West Basin Board of Directors has authorized a contribution to the Salt Management Guide of up to \$24,000, and the Nanofiltration study of up to \$120,000. These funds are included in the FY 2003-04 budget.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Committee on January 7, 2004 and agendized to the January 26, 2004 Board meeting as information for discussion.

RECOMMENDED MOTION:

This item is for information only.

LIST OF EXHIBITS:

- Exhibit "A" - Water Sources Powering Southern California: Imported Water, Recycled Water, Ground Water, and Desalinated Water
- Exhibit "B" - The Hot and Cold of Recycled Water in Refineries
- Exhibit "C" - Recycled Water - Challenging the Dye Master