

FILED by order
of the Board of Directors of
The Metropolitan Water District
of Southern California
at its meeting held MAR 8 1994



MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Daren E. Duff
Executive Secretary

February 15, 1994

To: Board of Directors (Organization and Personnel Committee--Information)
(Special Committee on Water Quality and Environmental Compliance--Information)
From: General Manager
Subject: Water Quality Division Sponsorship of University Cooperative Programs

Report

There are three university cooperative programs currently sponsored by the Water Quality Division (WQD): (1) the Cooperative Education (Co-op) program, (2) the Engineering Clinic program, and (3) the Cooperative Research program. Throughout the years, these programs have benefited both Metropolitan and the participating universities. Metropolitan benefits by receiving cost-effective services and uses the students as a "pool" of talented and diverse potential permanent employees.

The Co-op program associated with California Polytechnic University, Pomona (Cal Poly Pomona), has been successfully used at Metropolitan for eleven years. The Co-op program provides an excellent opportunity for the student to obtain valuable work experience and has been beneficial to Metropolitan by providing an additional workforce. In addition, the program has involved a significant number of minority, women, and handicapped students many of whom were ultimately hired by the WQD to help improve diversity and serve as a "pool" of potential hires (Attachment 1). Of the 10 permanent WQD staff hired after first working as a Co-op, 60 percent have been women or minorities. The Co-op students work part-time, receive limited benefits, and are paid approximately one-half the typical salary of WQD employees. It is estimated that this program saves the WQD approximately \$160,000 a year by not having to hire permanent staff.

Currently, the WQD is conducting two Engineering Clinic projects with Harvey Mudd College and Cal Poly Pomona. These programs are designed to bring together teams of undergraduate students to work on industry-sponsored projects. Contracts with Harvey Mudd College and Cal Poly Pomona are limited to \$33,000 and \$32,500, respectively. Had these projects been performed by

a professional engineering firm or in-house staff, the project costs would be approximately twice as high.

The Cooperative Research program for conducting applied research projects was initiated in the 1970s. Numerous projects have been performed in the disciplines of engineering, chemistry, and microbiology. This program has been beneficial to Metropolitan by providing special expertise in areas such as source water protection, water treatment technologies, disinfectant/disinfection by-products identification and analysis, and analytical method development, among many others. Attachment 2 presents the current project activities in this program. In 1993/94, a total of \$172,000 is budgeted to directly fund university research, \$92,000 of in-kind services are planned (no money changes hand for "in-kind" services), and a reimbursement of \$48,000 is anticipated (Metropolitan is paid directly for reimbursable services performed).

In summary, the three university cooperative programs currently sponsored by the Water Quality Division are highly cost-effective and assist the division in improving diversity. It is anticipated that these programs may be expanded in the future to provide further benefits for Metropolitan.

Board Committee Assignments

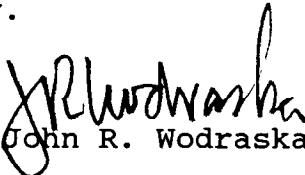
This letter is referred for information to:

The Organization and Personnel Committee pursuant to Section 2471(f) of Metropolitan's Administrative Code to study, advise, and make recommendations with regard to the selection of management and personnel consultants; and

The Special Committee on Water Quality and Environmental Compliance because of its authority to study and advise on compliance requirements pursuant to Administrative Code 2551 (a) and (b).

Recommendation

For information only.

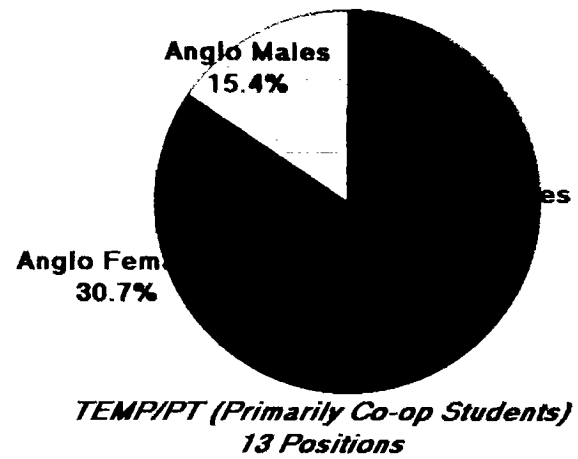
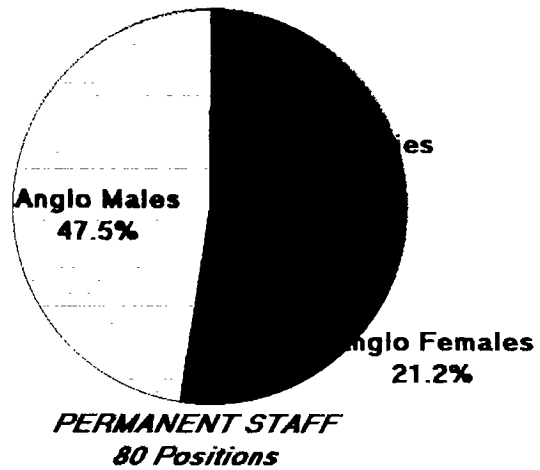
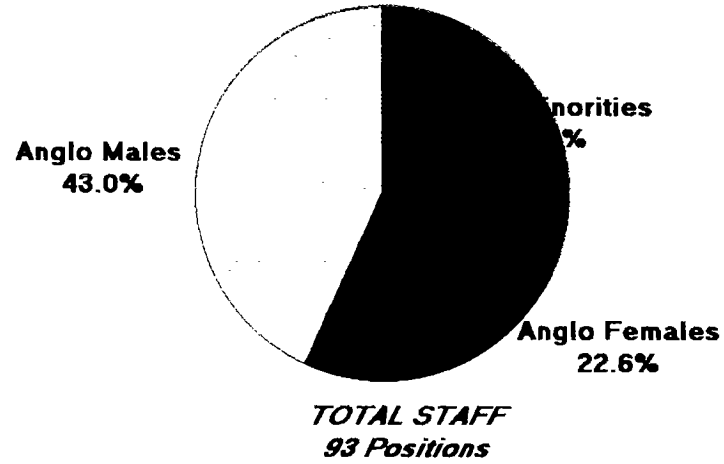

John R. Wodraska

SL:wt
(O:\Board\BdLR\UCP.doc)

Attachments

ATTACHMENT 1

**DISTRIBUTION OF ETHNIC BACKGROUND
IN THE WATER QUALITY DIVISION (1993)**



ATTACHMENT 2

CURRENT PROJECT ACTIVITIES IN COOPERATIVE RESEARCH PROGRAM

Name of Project	1993-1994 Budget	Name of Consultant(s)
Arsenic Removal from Water	\$50,000	University of California at Los Angeles
National Survey of Bromide Concentrations in Drinking Water	\$ 4,000	University of Colorado at Boulder
Ozone By-products Research	\$ 1,025	University of California at Los Angeles
Removal of Bromate from Ozonated Drinking Water	\$20,000	University of Colorado at Boulder
Taste-and odor causes	\$97,000	University of Michigan, Ann Arbor
Ozone/Chlorine/ Monochloramine Disinfection By-product Study	\$20,000 (in-kind)	University of North Carolina at Chapel Hill
Disinfection By-products Forming During Chloramination	\$72,000 (in-kind) \$48,000 (Reimbursable)	University of Houston
TOTAL	\$312,025	

Note: "in-kind" service means that Metropolitan staff perform work as part of a larger project that will directly benefit Metropolitan. "Reimbursable" services are paid to Metropolitan by an outside entity to perform work that is of mutual interest to both groups.