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METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Larry E. Duff
EXECUTIVE SECRETARY

September 27, 1994

To: Board of Directors (Water Problems Committee--Action)
Board of Directors (Executive Committee--Action)

From: General Manager

Subject: Agreement between Metropolitan and the Department of Water Resources for Delta Municipal Water Quality Investigations

Report

The Department of Water Resources (Department) developed a Municipal Water Quality Investigations (MWQI) program to monitor in the Sacramento/San Joaquin Delta (Delta) for contaminants of human health concern. In addition, an important objective of this program was to determine the source of these contaminants, including hydrogeologic conditions and land-management practices that impact the concentrations of these parameters. The ultimate goal of this program is to utilize this information in aiding the Department in developing alternate approaches to Delta improvements that would provide higher quality drinking water. Costs of the MWQI program are currently being repaid by all of the State Water Project (SWP) contractors through the Delta Water Charge. However, due to the highly specialized nature of this program--which provides essential information for municipal users of Delta water that is not relevant to agricultural users of this water--the urban contractors have agreed to pay all MWQI costs.

Prior to 1983, the Department's water quality monitoring for parameters of municipal concern were principally limited to total dissolved solids (TDS) and chloride, which are primarily of aesthetic concern for urban users. A major source of TDS and chloride in the Delta is from saltwater intrusion from the San Francisco Bay. Now through the MWQI program, bromide--which is also from seawater and is a precursor to trihalomethane (THM) and other disinfection by-product (DBP) formation--is being monitored so that improvements that are being considered in the Delta can address human health concerns, as THMs and many other DBPs are suspected human carcinogens. In addition, the Department's MWQI program and precursor programs, initiated since 1983, have been testing Delta waters for THM formation potential in order to determine the source of organic DBP precursors in the Delta. MWQI findings have demonstrated that seawater

intrusion and tidal exchange in the Delta are the major source of bromide to Delta drinking water supplies. In addition, drainage from agricultural tracts of land in the Delta-- particularly from those on peat soil--have been found to contribute up to approximately 50 percent of the THM formation potential in the Delta during summer irrigation months, as well as in the winter periods when salts are leached from the soil.

The MWQI data have become more critical as the United States Environmental Protection Agency has proposed a new DBP Rule that will significantly lower the allowable levels of THMs in disinfected drinking water. In addition, the proposed rule will regulate other DBPs, as well as DBP precursors. Furthermore, the proposed rule offers incentives to water systems that practice watershed management in which DBP precursors are controlled. Through MWQI funding, the Department's Planning Division has developed models to predict THM formation. The Department plans to incorporate an assessment of such human health issues into upcoming Environmental Impact Reports and Statements on Delta improvements.

A MWQI Agreement (Agreement) has been developed to provide for the allocation of the MWQI program costs among the SWP Urban Contractors for the period 1994 through 1997. This Agreement provides for cost sharing by the participants in proportion to their SWP Table A entitlements. The current MWQI program budget is expected to be approximately \$2.3 million per year over the period of the Agreement. Metropolitan's share of the program costs will depend upon the number of participants; however, under any cost sharing circumstances, the maximum share to be provided by Metropolitan would not exceed 85 percent. In addition, the Agreement provides for the formation of a MWQI Committee that will work with the Department to determine the budget, scope, schedules, and activities of the MWQI program. In response to the needs of the SWP contractors funding the MWQI program, the Department plans to provide additional data and more rapid access to this data as part of a revised MWQI program.

Metropolitan's staff have determined that this program is the most cost-effective means of obtaining these invaluable data. Because of the Department's geographical proximity to the Delta, they can manage the sampling and analysis for this MWQI program at a significantly lower cost than Metropolitan could from a Southern California location. The Department's sampling and management program is also more

efficient as they integrate the MWQI sampling and analysis in with other Department programs. In addition, the Department has spent a decade obtaining access to sample agricultural drains on private property. Such access would be difficult or impossible for a Southern California utility to obtain. Furthermore, an important benefit to the MWQI program is that as a joint effort between the Department, SWP contractors, and other utilities in Northern California who utilize Delta water, this program offers a means to obtain a consensus on the information from a diverse group of participants.

Metropolitan's staff has reviewed the MWQI program and the Agreement and has determined that participation in this program is in Metropolitan's best interest.

Recommendation

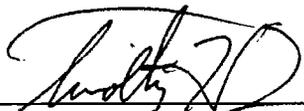
That the General Manager be authorized to execute the Municipal Water Quality Investigations Agreement with the Department of Water Resources.

John R. Wodraska
General Manager

By Debra C. Man
Debra C. Man
Chief of Planning
and Resources

SWK/TAR:cl

Concur:



John R. Wodraska
General Manager