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By the Board of Directors of
The Metropolitan Water District
of Southern California
at its meeting held

JUL - 9 1996

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METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

[Signature]
EXECUTIVE SECRETARY

June 18, 1996

To: Board of Directors (Engineering and Operations Committee--Information)

From: General Manager

[Signature]

Submitted by: Mark D. Beuhler
for Director of Water Quality

[Signature]

Subject: Sanitary Survey of Colorado River Watershed

RECOMMENDATION

For information only.

EXECUTIVE SUMMARY

Metropolitan's Water Quality Division (WQD) conducted a watershed sanitary survey of the Colorado River (above Parker Dam) and associated facilities (the Colorado River Aqueduct, Lake Mathews, and Lake Skinner) (see Attachments 1 and 2). The California Department of Health Services' (CDHS) Surface Water Treatment Rule (SWTR) mandates that all public water systems with surface water sources complete a sanitary survey of their watershed(s) to protect against microbial pathogens. Metropolitan's sanitary survey satisfies the requirement for all of Metropolitan's member agencies which treat Colorado River water.

The survey showed that the Colorado River upstream from Metropolitan's intake on Lake Havasu is subject to a number of potential microbial contamination sources including sewage discharges and heavy recreational use. While the overall quality of Metropolitan's Colorado River water is good, continued efforts to prevent deterioration of quality is necessary. Close surveillance of recreational activities and wastewater discharges, and increased coordination with the responsible governmental agencies in the watershed are needed. A high degree of protection from contamination sources is provided for Lake Mathews, Lake Skinner, and the Colorado River Aqueduct.

DETAILED REPORT

The California Department of Health Service's (CDHS) Surface Water Treatment Rule (SWTR) mandates that all public water systems with surface water sources complete a sanitary survey of their watershed(s) every five years. The SWTR stems from a federal Safe Drinking Water Act mandate to protect against microbial pathogens such as Giardia and viruses.

The Water Quality Division (WQD) conducted a watershed sanitary survey of the Colorado River (above Parker Dam) and associated facilities (the Colorado River Aqueduct, Lake Mathews, and Lake Skinner) as required by CDHS. The survey was performed in-house by WQD staff assisted by personnel from the Operations, Planning and Resources, and Environmental Compliance Divisions. A Member Agency Advisory Committee provided review and input throughout the process.

This survey satisfied the requirement to conduct a watershed sanitary survey for all of Metropolitan's member agencies which treat Colorado River water. The State Water Project sanitary survey was updated (a complete survey was completed in 1990) by the California Department of Water Resources guided by a State Water Contractors' committee which included Metropolitan as an active participant.

The sanitary survey is an assessment of the watershed and any impact on the ability of Metropolitan and its member agencies which treat Colorado River water to meet the SWTR. The goal was to identify potential sources of contamination in the watershed and recommend measures to control and/or prevent introduction of contaminants which may degrade source water quality and impact treatment plant performance. The primary focus of the survey was microbial contaminants (see Attachment 3).

A preliminary report of the findings was presented to CDHS on March 1, 1996 for their review and comment. These comments are being incorporated into a final report which will be sent to all member agencies.

The survey showed that the Colorado River upstream from Metropolitan's intake on Lake Havasu is subject to a number of potential microbial contamination sources including sewage discharges and heavy recreational use. These sources may contribute microorganisms, organic chemicals, and nutrients to the watershed. Pathogens, such as Giardia and Cryptosporidium, are of special concern due to their ability to survive in the environment for long periods of time.

While the overall quality of Metropolitan's Colorado River water is good, continued efforts to prevent deterioration of quality is necessary. Close surveillance of recreational activities and wastewater discharges, and increased coordination with the responsible governmental agencies in the watershed are needed. A high degree of protection from

contamination sources is provided for Lake Mathews, Lake Skinner, and the Colorado River Aqueduct.

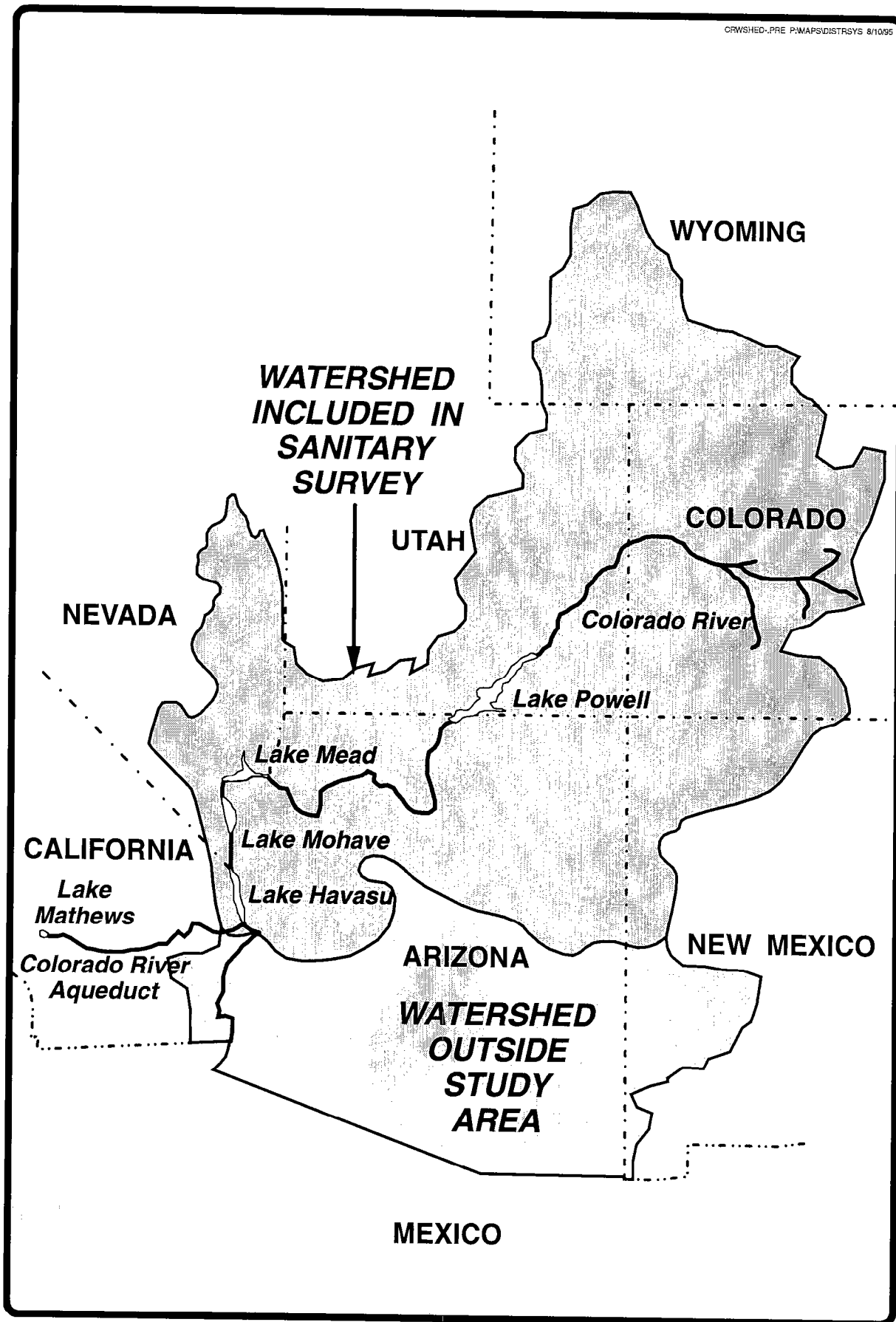
An ongoing program is being developed to address issues and concerns identified during the sanitary survey and to implement recommendations included in the report. These activities will be part of Metropolitan's continuing source water quality protection program.

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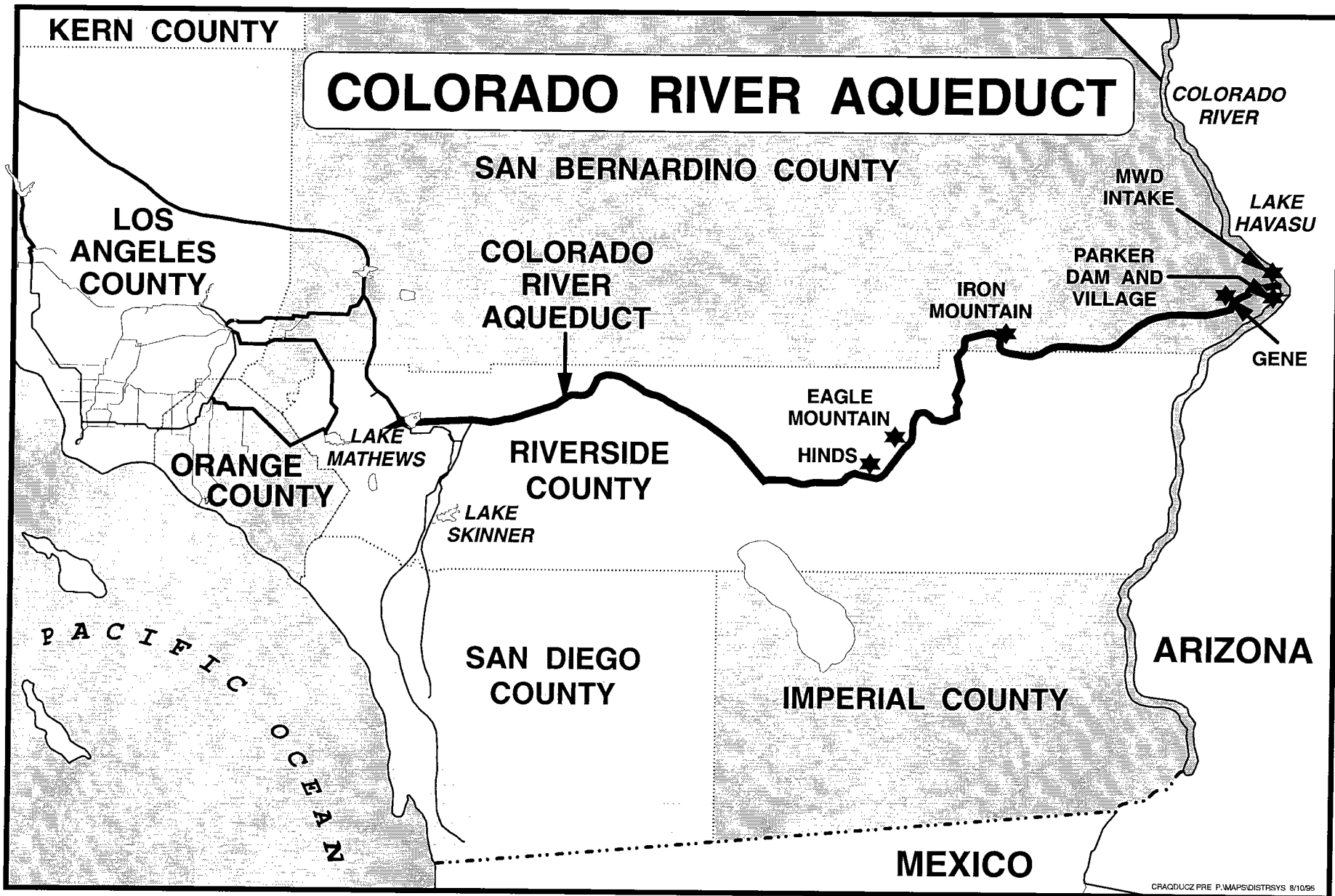
Attachments

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COLORADO RIVER WATERSHED



CRAQDUCZ PRE P.MAPS/DISTRYS 8/10/96

POTENTIAL SOURCES OF CONTAMINATION

Watershed	Recreation	Agriculture	Livestock / Dairies	Mining / Industrial	Chemical Spills	Wastewater	Urban Development	Flooding	Wildlife
Colorado River Watershed									
Above Lake Mead	X	X				X			X
Davis Dam Through Lake Mead	X		X	X	X	X	X	X	X
Parker Dam to Davis Dam	X		X	X	X	X	X	X	X
Metropolitan's Facilities									
Colorado River Aqueduct						X		X	X
Lake Mathews			X				X		X
Lake Skinner			X				X		X