

April 20, 1999

**To:** Board of Directors (Water Planning and Resources Committee—Information)

**From:** General Manager \_\_\_\_\_

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**Subject:** Arsenic Regulatory Update

## RECOMMENDATION

For information only.

## EXECUTIVE SUMMARY

On March 23, 1999, the National Research Council recommended that the United States Environmental Protection Agency develop a stricter standard for arsenic in the nation's drinking water as soon as possible. Recent health effects information suggests that the current arsenic standard does not sufficiently protect public health. While the Council did not recommend a safe level, it is almost certain a more restrictive standard will be established. This more restrictive standard may impact local ground water and surface water supplies in Metropolitan's service area.

## DETAILED REPORT

Under the Safe Drinking Water Act of 1996, the United States Environmental Protection Agency (USEPA) is required to propose a revised standard for arsenic by January 2000 and promulgate a final rule no later than January 2001. This rule would revise the existing standard of 50 ug/L (ppb, parts per billion) for arsenic in public drinking water supplies. In addition, the Act requires that the USEPA develop a comprehensive research plan to support the arsenic rulemaking process. The focus of the research plan is to reduce the uncertainty in assessing health risks associated with exposure to low levels of arsenic.

In a News Release on March 23, 1999, the National Research Council urged the USEPA to develop a stricter standard for allowable levels of arsenic in the nation's drinking water supplies as soon as possible. This recommendation makes it virtually certain that the USEPA will substantially decrease the maximum contaminant level for arsenic. Arsenic has long been identified as a toxicant, and in drinking water it has been associated with skin cancer and other disorders. But recent studies in India and Bangladesh suggest that drinking water with high levels of arsenic can also lead to bladder and lung cancer, which are more likely to be fatal. In the United States, water supplies rarely contain levels of arsenic above the USEPA's current maximum contaminant level of 50 ppb. However, this standard was set in 1975, and new studies

show that in addition to skin, bladder, and lung cancer, consuming arsenic in drinking water may also cause skin lesions, anemia, nerve damage, and circulatory problems. The World Health Organization standard for arsenic is set at 10 ug/L.

Also on March 23, 1999, the American Water Works Association (AWWA) went on record supporting lowering the maximum contaminant level of arsenic in order to ensure public health. AWWA recommended to the USEPA to form stakeholder groups, particularly in the western United States where occurrence information indicates arsenic levels are higher. The stakeholder groups will have input into the Health Risk Reduction and Cost Analysis used in determining a new drinking water standard. A study conducted for AWWA in 1997 estimated utility costs to comply with a lower arsenic standard could reach \$1 billion a year. The study also showed that up to 2,200 of the 56,000 U.S. water supply systems would be affected if the arsenic standard were lowered from 50 ppb to 10 ppb.

The arsenic concentrations in Metropolitan's source waters range from 2 to 5 ppb. Metropolitan has conducted arsenic removal studies and also conducted cost estimates to remove arsenic at various target levels. Overall, data collected to date indicates Metropolitan would be able to meet a more restrictive standard by modifying the coagulation process for arsenic removal. The cost impact of a lower arsenic level to Metropolitan is expected to be minimal.

Metropolitan will work with our member agencies and subagencies to evaluate the direct impact of a lower arsenic standard. A survey conducted by the Central Basin Municipal Water District in 1992 indicated some of the Central Basin wells may have difficulty complying with a lower arsenic standard. Undoubtedly, other agencies/subagencies would also be impacted by a more restrictive arsenic standard. Costs to implement wellhead treatment for arsenic removal could be very expensive and, subsequently, could result in increased demand from Metropolitan's supplies.

In an effort to support the USEPA's plans for new research on arsenic and to promote the use of good science in rulemaking, the Association of California Water Agencies (ACWA) entered into an Arsenic Research Partnership with the USEPA and the American Water Works Association Research Foundation. In 1998, the AWWA Research Foundation and ACWA contributed \$500,000 each, and Congress also appropriated \$1 million to the AWWA Research Foundation for research on arsenic health effects. Although the USEPA was unable to contribute to the research partnership financially, it is an active participant scientifically. Metropolitan has been an active participant in the research partnership and has committed a maximum of \$50,000 for this year's research efforts.

MKD/mi