STATE OF CALIFORNIA - THE RESOURCES AGENCY

GRAY DAVIS, Governor

**COLORADO RIVER BOARD OF CALIFORNIA**
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June 22, 1999

Ms. Felicia Marcus
Region IX Administrator
United States Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105-3901

Dear Administrator Marcus:

Re: Perchlorate Contamination of the Colorado River

The Colorado River Board of California (CRB) is the state agency charged with protecting California's interests and rights in the water and power resources of the Colorado River System. Its members consist of ten members that are appointed by the Governor: one from each of the six major public agencies with rights to the use of water or power from the Colorado River, two from the general public and the Directors of the California Department of Water Resources and Fish and Game.

The CRB has been tracking with great concern the issue of perchlorate contamination in the Colorado River emanating from the Henderson, Nevada area and flowing into Lake Mead via the Las Vegas Wash. The CRB commends the United States Environmental Protection Agency (EPA) and the State of Nevada for their actions to date including the recent activities by Kerr-McGee to pump contaminated groundwater on its site and place it into evaporation ponds. We now understand that EPA and the State of Nevada have identified two areas where immediate action would be appropriate:

- Intercepting groundwater flows below the Kerr-McGee property before it reaches the Las Vegas Wash at an area known as the "Pittman Lateral" through use of wells; and

- Intercepting a surface flow into the Las Vegas Wash which was recently discovered by the Southern Nevada Water Authority. This discovery appears to account for a significant amount of the perchlorate we are currently detecting in the Colorado River.

Other actions we believe should be taken include:

- A comprehensive assessment (by the USGS) of the time needed for the Colorado River system to "flush itself out" once the source of perchlorate has been eliminated; and

- Additional monitoring for perchlorate for the purpose of tracking the plume and assessing clean-up efforts.

Beginning next year, water utilities will have to send Consumer Confidence Reports to all customers once a year. The reports must include the presence of any detectable contaminant. Although the water served by downstream users does not violate a standard, the presence of perchlorate cannot be justified.

We appreciate the attention you and your staff are providing on the perchlorate issue. We believe that prompt and immediate action must be taken on this public health issue as over 20 million people in Arizona, California, and Nevada are being exposed to the perchlorate contamination. We request that you immediately provide us with your schedule for implementation of the programs to intercept the perchlorate flow to prevent it from reaching the Colorado River together with your enforcement plan to ensure that it is done immediately.

If we can further help facilitate this process or if you have any questions, please call me.

Sincerely,

Gerald R. Zimmerman
Executive Director

Attachment

c: Richard W. Bunker, Colorado River Commission of Nevada
Patricia Mulroy, Southern Nevada Water Authority
Rita P. Pearson, Arizona Department of Water Resources

Senator Barbara Boxer
Senator Dianne Feinstein

Representative Lucille Roybal-Allard
Representative Xavier Becerra
Representative Howard L. Berman
Representative Brian Bilbray
Representative Mary Bono
Representative George E. Brown
Representative Ken Calvert
Representative Christopher Cox
Representative Randy Cunningham
Representative Julian C. Dixon
Representative David Dreier
Representative Bob Filner
Representative Elton Gallegly
Representative Duncan L. Hunter
Representative Steven T. Kuykendall
Representative Jerry Lewis
Representative Matthew G. Martinez
Representative Juanita Millender-McDonald
Representative Howard P. McKeon
Representative Gary G. Miller
Representative Grace Flores Napolitano
Representative Ron Packard
Representative James E. Rogan
Representative Dana Rohrabacher
Representative Ed Royce
Representative Loretta Sanchez
Representative Brad Sherman
Representative Maxine Waters
Representative Henry A. Waxman

Attachment

# BACKGROUND INFORMATION ON PERCHLORATE CONTAMINATION IN COLORADO RIVER WATER

## Core Issues

1. The presence of perchlorate in drinking water is a result of contamination from Henderson, Nevada.
2. Sources of perchlorate need to be cleaned up immediately.
3. Perchlorate is stable and will continue to persist for years in the Colorado River even after the contamination source is eliminated.
4. Once a perchlorate standard is established, consumers will have to be informed annually if it is present in their drinking water.
5. Treatment to remove perchlorate from drinking water is very expensive.

## Background

Perchlorate is used in the manufacture of solid rocket propellants, munitions and fireworks. Since February 1997, perchlorate has been found in many drinking water wells in California at locations near defense and aerospace facilities. In June 1997, perchlorate was detected at 5 to 9 parts per billion concentrations in the Colorado River at and below Hoover Dam. High concentrations of perchlorate was found entering Lake Mead from the Las Vegas Wash. The source of perchlorate is groundwater seepage from the sites of one or more ammonium perchlorate manufacturers at Henderson, Nevada. The perchlorate contamination in the lower Colorado River could potentially impact 18 million people in southern California, Nevada and Arizona. Perchlorate is stable, ubiquitous downstream of Lake Mead and would take a minimum of 3-5 years to flush out of the Colorado River Reservoirs.

## Health Effects

Perchlorate at high concentrations interferes with the thyroid gland's ability to produce hormones necessary for normal growth and development. This is a particular concern for infants and children who are still developing. The EPA recently reviewed new toxicological studies to assess the non-cancer, cancer and ecological effects of perchlorate. These new health effects data will be used to set a California and possibly a federal standard for perchlorate.

## Regulatory Status

There is no drinking water standard for perchlorate. California is the only state that has a provisional action level of 18 parts per billion. The State is aggressively moving toward establishing a primary standard and a public health goal. The State has indicated that it will consider sensitive sub-populations in setting a perchlorate standard, such as children and infants. This could drive the standard lower.

## Consumer Confidence Reports

Beginning next year (2000), California water utilities will have to send Consumer Confidence Reports to all customers once a year. The Consumer Confidence Reports mandate the reporting of the presence of any detectable amount of contaminant for which there is a standard. Even if the water Colorado River users deliver to their consumers does not violate a standard, its mere presence cannot be justified in our drinking water.

## Treatment

Treatment to remove perchlorate would involve either ion exchange or reverse osmosis technologies. These could cost several hundred dollars per acre foot and would take a number of years to install.