



## WATER SAFETY: Health officials take new aim at perchlorate

### PERCHLORATE IN INLAND WATER

The state on Friday proposed a new goal for drinking water of no more than 1.0 part perchlorate per billion parts of water. The current health goal is 6.0 parts per billion, which is also the legal limit. Here is how much perchlorate Inland water agencies have reported:

| Supplier          | Area                      | Perchlorate average                            |
|-------------------|---------------------------|--|
| Corona            | City of Corona            | Range of 0 to 3.4 ppb<br>(no average reported) |
| Eastern Municipal | Moreno Valley to Temecula | Non-detectable                                 |
| Rancho California | Temecula                  | No results available                           |
| Redlands          | City of Redlands          | 1.6 ppb  |
| Riverside         | City of Riverside         | Non-detectable                                 |
| Western Municipal | Southeast of Riverside    | Non-detectable                                 |

SOURCE: AGENCIES' 2009 AND 2010 WATER QUALITY REPORTS

By DAVID DANELSKI | The Press-Enterprise  
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California is proposing a tougher target for the rocket fuel chemical perchlorate in drinking water, citing studies that linked minute amounts of the chemical to impaired thyroid function in infants.

The current health goal -- for water considered safe for everyone -- is 6 parts perchlorate per billion parts water. On Friday, the state proposed lowering the goal to 1 part per billion.

While not an enforceable limit, a health goal is a step in determining a legal limit for a drinking water contaminant. The current legal limit for perchlorate is 6 parts per billion. After a public-comment period ends next month, the health goal could be finalized and forwarded to another agency, which could consider adopting a tougher drinking-water standard.

Perchlorate is found in many Inland water sources. Suppliers treat or blend the water to meet the limit before delivering it to consumers.

Among the contaminated Inland sources are the Colorado River and several groundwater basins. The Metropolitan Water District, which serves about 19 million people in Southern California, relies in part on the Colorado River for its supplies. The river now carries about 1.5 parts per billion, MWD spokesman Bob Muir said.

Muir pointed out that health goals are not enforceable and said it may be years before the California Department of Public Health revises the legal limit for perchlorate in drinking water. The agency must consider available treatment technologies and costs when and if it changes the perchlorate limit. Health goals are based only on studies showing how a contaminant affects people.

If the state does limit perchlorate to 1 part per billion, MWD could blend river water with perchlorate-free water from Northern California that travels through the State Water Project system of canals and reservoirs.

"We have options," Muir said.

The cities of Corona and Redlands also have reported perchlorate levels higher than the draft health goal.

Jonathan Daly, general manager of Corona's Department of Water and Power, said some city wells have no perchlorate. If need be, the city could blend and treat its water to bring levels below 1 part per billion, he said.

### BABIES SUSCEPTIBLE

Perchlorate is an explosive used to make fireworks, munitions and rocket fuel. It also occurred naturally in some fertilizers used in the past century.

In the Inland area, the chemical leaked from a former Lockheed Martin rocket factory in Mentone, causing a stream of underground pollution that invaded the water supplies of several cities, including Riverside. Lockheed has spent tens of millions of dollars to treat the water to remove the perchlorate.

The Colorado River was polluted by a Cold War-era perchlorate factory in Henderson, Nev.

Scientists at the state Office of Environmental Health Hazard Assessment found that a wide range of research, including studies by the agency's scientists, showed infants are more susceptible to perchlorate's effects, spokesman Sam Delson said in an e-mail.

Perchlorate impedes the thyroid gland's ability to absorb iodide, needed to make hormones that guide brain and nerve development and regulate metabolism.

"Adults may go several days without iodide, which is an essential nutrient, but infants cannot store as much, so they need to have more consistent doses," Delson said.

A study published last month by scientists with the hazard-assessment agency found that babies born in the 1990s in areas where tap water contained perchlorate -- including Riverside and San Bernardino counties -- had a 50 percent chance of having a poorly performing thyroid gland.

### REACTION TO PROPOSAL

Industry officials were critical of the proposal to lower the health standard.

A group called the Perchlorate Information Bureau, which is funded by Aerojet, Lockheed Martin and other industries that make or use perchlorate, issued a statement saying the lower health goal "would jeopardize water supplies and increase costs for water consumers statewide without any corresponding public health benefit."

The group cited a 2002 industry-funded study on 37 adults who ingested the chemical in a clinic in Oregon. That research found no adverse effects at 245 parts per billion.

Delson, however, said the 2002 study did not take into account the effects of perchlorate on infants.

Penny Newman, executive director of the Glen Avon-based Center for Community Action and Environment Justice, applauded the draft health goal and said state officials should move swiftly to lower the legal limit.

She said a decade-old analysis of scientific studies by the U.S. Environmental Protection Agency concluded that 1 part per billion is a safe level for drinking, but millions of people continue to be exposed to higher amounts.