

Dear Editor,

Chromium (VI), also known as “hexavalent chromium”, was recently reported in routine drinking water monitoring in samples from the Humboldt Bay Municipal Water District. People are understandably concerned, and we hope to provide some background and context that might allay some of their fears. We take water quality and the public’s trust very, very seriously, and we wish to continue earning the public’s high regard.

The State of California has set a regulatory limit—also called the Maximum Contaminant Level, MCL—of 10 parts per billion for drinking water. All water providers must hold to this limit. HBMWD’s recent samples ranged from 0.18 to 0.23 ppb.

However, the Public Health Goal for chromium VI (0.02 ppb) is much lower than both the California regulatory limit and HBMWD’s recent samples. The goal is exactly that: a goal, which at this time cannot be feasibly attained. The PHG is based on the science of health risk assessment, which relies on all relevant scientific data, including animal exposure data and simulation (computer) models. Based on nine studies and the health risk assessment, scientists and the State of California set the PHG.

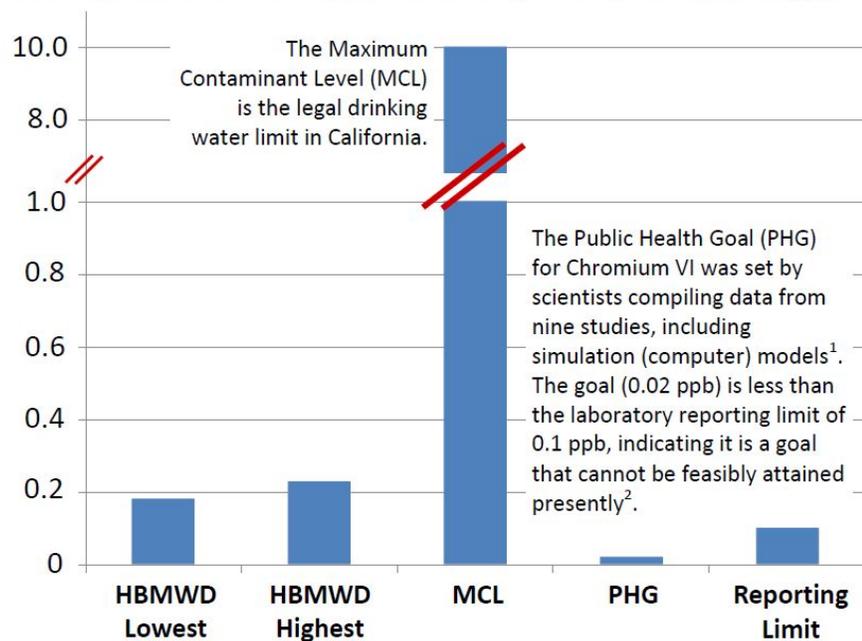
We note that the laboratory reporting limit in a study specifically investigating chromium VI water contamination was 0.1 ppb, which is also higher than the PHG. This is one clue to the feasibility difference between the MCL and the PHG. In a world with unlimited funds, even if we built a treatment plant that could filter chromium IV, we could not reliably measure if we are meeting the PHG.

Although we regret that some of our customers may have been alarmed by recent online blogging, we welcome public interest in water and water quality. The HBMWD meets on the second Thursday of every month, and the public is always encouraged to attend. Our website is another source of water information (www.hbmwd.com).

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Director, HBMWD

Chromium VI concentration in parts per billion (ppb)



1. Paustenbach et al., 2003. Human health risk and exposure assessment of chromium (VI) in tap water. *J. Toxicol Environ Health* 2003 Jul 25;66(14): 1295-339. <https://www.ncbi.nlm.nih.gov/pubmed/12851114>
2. Izbicki and Groover, 2016. A plan for study of natural and man-made hexavalent chromium, Cr(VI) in groundwater near a mapped plume, Hinkley, California. January 2016. U.S. Geological Survey. <https://pubs.er.usgs.gov/publication/ofr20161004>