CASTROVILLE COMMUNITY SERVICES DISTRICT

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Michael Baes
Pesticide and Environmental Toxicology Branch
Office of Environmental Health Hazard Assessment
California Environmental Protection Agency
1515 Clay St., 16th floor
Oakland, California 94612

Subject: **Draft Public Health Goal for Hexavalent Chromium in Drinking Water**

Dear Mr. Baes:

The Castroville Community Services District (CCSD) is a district that provides potable water and wastewater services in the north Monterey county community of Castroville. The CCSD serves a population of about 7,200 through approximately 1,530 service connections. The CCSD currently receives 100 percent of its water from groundwater in the 400 foot aquifer.

In 2006, the CCSD completed testing for chromium 6 as directed by the Department of Health Services (now California Department of Public Health). One of Castroville's three wells had a detection level of 6 ppb of chromium 6. If treatment to a level below the new MCL is infeasible, the CCSD could stand to loose 34 percent of its water supply.
Currently the CCSD is forced to deal with the treatment of Arsenic to remove a miniscule 13 ppb at a cost to the community of $7,000 dollars per person. We do not believe this kind of oversight is helping anyone. The OEHHA needs to be more considerate of the real cost / benefit before applying questionable science to the detriment of the CCSD and our ratepayers. In these challenging economic times the CCSD believes this ill advised burden should not be foisted on our constituents.

According to the Association of California Water Agencies (ACWA), OEHHA's draft PHG of 60 parts per trillion (ppt) was based largely on the findings of a recent National Toxicology Program (NTP) study that concluded there is sufficient data to classify hexavalent chromium as a carcinogen through the oral route of exposure. The researchers reached this conclusion through selected evidence that hexavalent chromium, when ingested in very high doses, causes cancer of the oral cavity and small intestine in rats and mice. Along with ACWA, the CCSD is concerned that the results of the NTP study and other referenced studies do not sufficiently demonstrate the human carcinogenicity of

hexavalent chromium in drinking water and as a result do not provide justification for the proposed PHG level of 60 ppt (parts per trillion).

ACWA points out that in the draft PHG document, several studies previously estimated that saliva and stomach fluids have the capacity to reduce hexavalent chromium to trivalent chromium in amounts much larger than the "maximum plausible levels of hexavalent chromium in water that would likely be ingested by humans..." The document further asserts that "...exhaustion of the capacity of saliva and gastric fluids to reduce hexavalent chromium appears unlikely."[1] According to ACWA, the administered doses in the NTP study are so large that they easily overwhelmed the reductive capacity of both the oral cavity and the stomach in the rodents. This is especially significant as the NTP study did not find excess cancers at the lowered studied doses in both rats and mice. Equally as important, the stomach composition of humans and rodents is very different, with humans having a much more sophisticated and higher level of gastric juices than rodents.

Along with ACWA, the CCSD also has concerns with the interpretation and use of data from two key studies submitted as evidence that hexavalent chromium in drinking water is a human carcinogen. It is our understanding that the Borneff *et al* study is seriously flawed and should not be considered in the development of the PHG. In the work completed by Zhang and Li, it is our understanding that not all factors were considered when the authors reached their conclusions, including the extremely high levels of hexavalent chromium and the presence of a particular bacterial infection potentially affecting the results.

The CCSD strongly supports additional scientific studies to validate or refute the carcinogenicity of hexavalent chromium before establishing a final PHG that will be used by the California Department of Public Health to set its maximum contaminant level (MCL).

Thank you for considering our input on this matter.

Sincerely,

J. ERIC TYNAN
GENERAL MANAGER

[1] "**Draft** Public Health Goal for Hexavalent Chromium in Drinking Water," Office of Environmental Health Hazard Assessment, August 2009