

Potential Impacts of State Regulations for Chromium 6 July 1, 2014

Chromium 6 is a heavy metal found naturally at low concentrations within groundwater in many parts of the State. Hexavalent chromium (chromium 6) is currently regulated at the California and federal levels under California's and U.S. EPA's primary drinking water standards for total chromium. Chromium can exist in one of the two relevant forms: hexavalent chromium and trivalent chromium. Each of these can transform into the other depending on the surrounding conditions. Trivalent chromium is non-toxic and is, in fact, an essential nutrient. Hexavalent chromium can be toxic, depending on the concentration and exposure pathway. Up to now, drinking water regulation for chromium was stated in terms of total chromium for several reasons, including the ability of the two relevant forms of chromium to transform into the other.

The existing National Maximum Contaminant Level (MCL) for total chromium established by the EPA is one hundred parts per billion (ppb). The existing California standard is 50 ppb.

JBWD has been testing for total chromium for the past 5 years. Results vary by well, and have ranged from 8.9 to 42 ppb. Our latest test, in April of this year, showed a range of 12 to 26 ppb, and met existing National and California State standards for total chromium. The United States Geological Service did the latest testing, and specifically tested for chromium 6 as well. The readings reflect mostly chromium 6, and very little chromium 3.

California Department of Public Health (CDPH) has been studying the feasibility of removing chromium 6 from drinking water for the more than decade. On July 1, 2014 the new CDPH regulations for chromium 6 (10 ppb) went into effect. This is approximately 100 drops of water in 10,000 gallons.

Your tap water can still be used for drinking, cooking, and all other needs. Chromium-6 is being regulated by the state for potential health impacts after many years of consumption, not because of immediate health risks. JBWD board members, staff, and their families confidently drink our tap water every day, and will continue to do so.

With the new regulation in effect, the District has up to 6 months to begin testing under the regulations, with another 4 quarterly tests required. However, based on the information we have to date, it appears that we will be unable to meet the new standards set by CDPH immediately.

Since the release of the proposed regulation in April the District has begun planning in three areas to address the potential problem. These include depth dependent sampling, treatment avoidance methodologies, and treatment methodologies. We will be working with CDPH, California Rural Water Association, Mojave Water Agency, USGS and other partners to develop a compliance plan. Implementation of the plan will take several years to complete. Costs of this regulation to Joshua Basin are unknown at this time, however they could exceed several million dollars.

It is our mission to provide safe, reliable drinking water and the District will work to comply with the new MCL as soon as possible.