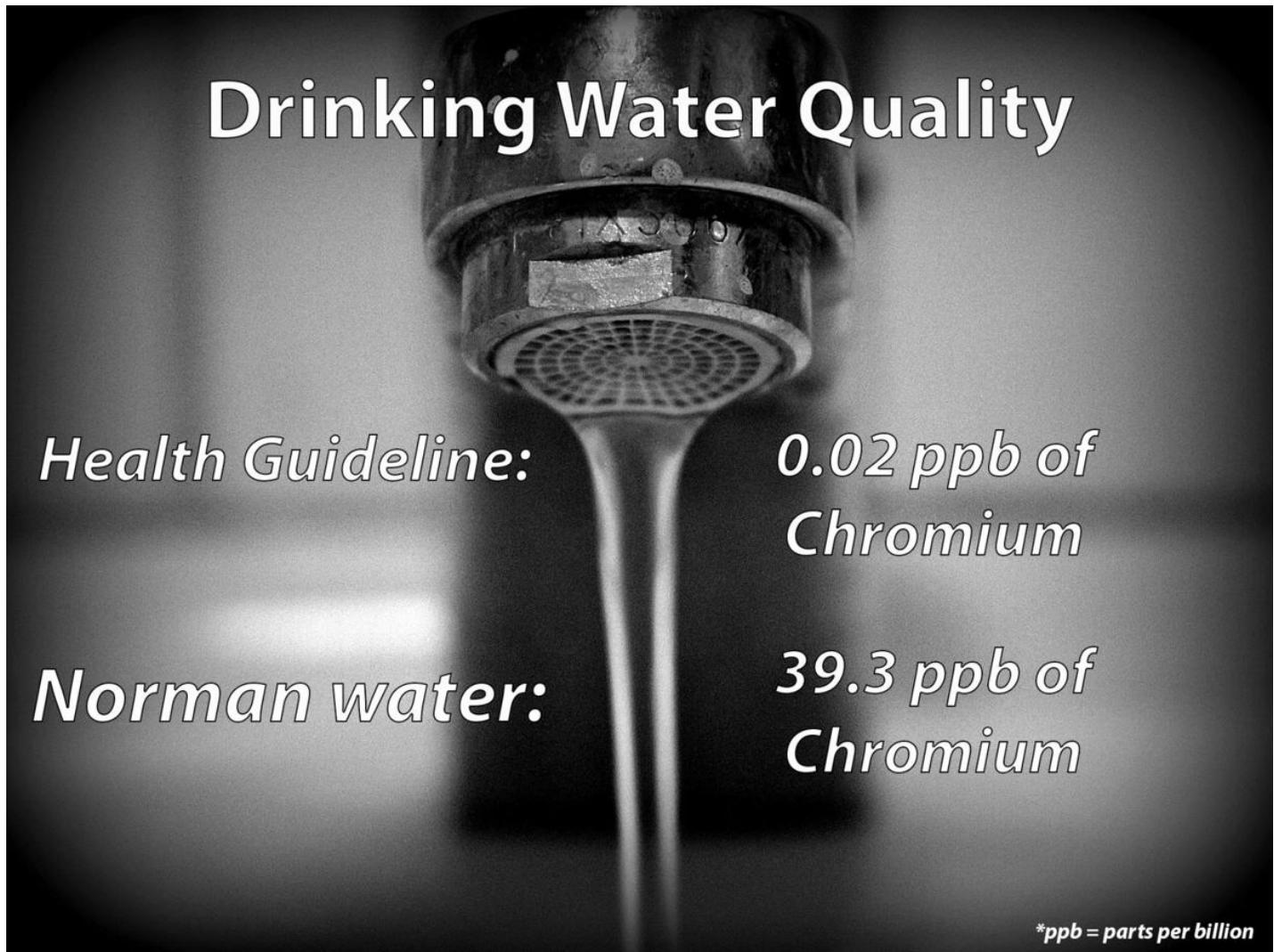


http://www.oudaily.com/news/chromium--levels-in-norman-water-safe-despite-exceeding-one/article_6d57b6ae-595f-11e9-ad51-0f1d84dbc5bb.html

Chromium-6 levels in Norman water safe despite exceeding one group's standards, experts say

Drew Hutchinson Apr 7, 2019 Updated Apr 7, 2019



The Environmental Working Group's website shows that Norman's water is above recommended safety standards for chromium. Data via EWG Tap Water Database

Norman's water does not meet one environmental group's drinking water standards, but two water treatment experts said the water is safe and meets federal guidelines.

A graphic that recently resurfaced on Twitter reported that Norman's drinking water was extremely dense in chromium, a chemical element and metal often found in stainless steel. The element can cause cancer in its hexavalent form, chromium-6. The Environmental Working Group's [website](#) reaffirms what the graphic showed: Norman's water is, at a glance, far above recommended safety standards.

The Environmental Working Group's site recommends that drinking water not have over 0.02 parts per billion of chromium-6. Norman's water contains 39.3 ppb, data from 2010-15 found. But Geri Wellborn, manager of Norman's Vernon Campbell Water Treatment Plant, and Rachel Croft, an OU environmental engineering senior and the plant's lab manager, said the chromium-6 levels are nothing to worry about.



"Our drinking water is safe," Wellborn said. "It meets all the state and federal guidelines. We're spending \$30 million here at this water treatment plant to make your surface water quality better."

First, the Environmental Protection Agency's federal limit for all forms of chromium is 100 ppb, according to the EPA website. And Croft, who composes the city's water consumer confidence report, said chromium-6 usually only causes cancer at hundreds of times this number.

Second, Wellborn said the 0.02 ppb limit — proposed more than 10 years ago by the California Office of Environmental Health Hazard Assessment — is impossible to meet for most municipalities and would require expensive water treatments.

“And even if they could (meet it), they couldn’t afford it because people can’t afford the water,” Wellborn said.

To keep Norman’s water safe, Croft is required to test points of entry for wells in the city. This ensures that the water meets federal guidelines before it enters the water system, although certain mineral and chemical levels can vary once the water has traveled from its original point.

Wellborn said all forms of chromium in Norman water come from groundwater — not reservoirs like Lake Thunderbird, from which she said the city gets 75 percent of its water.

“(Groundwater is) old,” Wellborn said. “It ages, and as it ages it just naturally dissolves metals. Those are the residuals that are in the water when we pump it out of the ground.”

Although the water meets federal guidelines, Wellborn and Croft said the water treatment plant would attempt to lower chromium-6 levels if residents took action.

“If this city had some sort of grassroots effort and had a vote and said, ‘We want this,’ we could do that,” Wellborn said.

But Wellborn said the EPA could come in any time and set new standards, so operating by federal — rather than local — guidance is usually most effective.

“The bottom line is the EPA sets a limit,” Wellborn said. “All the water industries, we are programmed to meet limits.”



But the water treatment plant has conducted pilot studies to try to remove chromium-6 from Norman's water. Croft said the plant has been working with the Bureau of Reclamation, which has set up experiments using ion exchange, a chemical reaction used to purify solutions, to filter out the chemical.

"So far (the studies) are pretty successful," Croft said.

Another pilot study, let by an outside engineering firm, involved letting microorganisms feed off the chromium, Wellborn said.

"They'll consume it, use it as a food source, and you can basically wash it away," Wellborn said.

Croft said the pilot studies help Norman be prepared to act quickly in case the EPA ever changes its standards for chromium in water.

"We could have a way to implement them faster than someone who hasn't studied that on their own groundwater to see if it works," Croft said.



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Drew Hutchinson

news reporter

Senior news reporter