

Community View
The Journal News
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To The Editor,

We write in response to the series of articles that have appeared in the Journal News concerning the recent report by United Water indicating that in 2006 two wells from their water system exceeded the EPA maximum contaminant level (MCL) for arsenic in drinking water. We are scientists at Columbia University's Lamont-Doherty Earth Observatory and Mailman School of Public Health who have been studying the health effects and geochemistry of arsenic in groundwater for the past seven years, with grant funding from the National Institutes of Health. We write to clarify some of the facts concerning the known health effects of arsenic exposure from drinking water.

In January 2006, the EPA lowered the national MCL from 50 parts per billion (ppb) to 10 ppb. This reduction of the arsenic MCL from 50 to 10 ppb came about as a result of a careful review of many research studies of populations chronically exposed to arsenic for many years. Many people around the world are or have been chronically exposed to naturally occurring arsenic in drinking water for decades, including populations in Taiwan, Bangladesh, India, China, Viet Nam, Chile, Argentina, and others. Sadly, it is estimated that 100 million people in South Asia – 40 million in Bangladesh alone - are currently exposed to arsenic from drinking and cooking with well water that can contain arsenic concentrations as high as 1000 ppb or more. As a result of studies of the health effects of arsenic in those populations, it has been learned that long term arsenic exposure can lead to an increased risk for an array of adverse health effects, including various cancers (skin, bladder, lung, liver), cardiovascular disease, and neurological effects that include deficits in intelligence in children. The risk for each of these adverse health effects is known to increase as water arsenic concentration increases and as the duration of arsenic exposure increases.

On February 9, 2007, United Water informed their customers that the running annual average arsenic concentrations in their Grandview Wells #67 and #78 were 14.2 and 12.9 ppb, respectively, in excess of the MCL of 10 ppb. By following the reporting guidelines of the new EPA standard, customers were not informed until 13 months after the first measurement above 10 ppb, and this has justifiably worried and angered many in the public. However, two issues surrounding this event are noteworthy for the Rockland County community. First, risk assessment techniques used to develop the MCLs for chemicals in drinking water generally assume that a population would be exposed to the chemical in water for life. In the case of Rockland County, it appears that exposure to water that exceeded the arsenic MCL occurred for a relatively short period of time. The risk for the development of adverse health effects would therefore appear to be vanishingly small. Second, unfortunately, there is no absolute certainty about the risk of possible health effects that might arise from exposure to such relatively low concentrations of arsenic for a short time because the populations that have been studied in the

past and have suffered ill effects from arsenic exposure were all exposed to arsenic for many years, typically decades.

We praise The Journal News for bringing the arsenic issue to the attention of the public, and for delving into the situation at length. However, we believe that the description of “Health Implications” published in the February 19th, 2007, Journal News was unduly alarming in that it included a description of effects of acute arsenic poisoning, i.e., exposure to extraordinarily large and immediately poisonous amounts of arsenic, that do not reflect the situation in Rockland County.

Sincerely,

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AND

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