



Barstow Groundwater Contamination

This fact sheet is to provide information about recently discovered groundwater contamination in a few drinking water wells. Municipal drinking water supplied by Golden State Water Company is NO LONGER affected by this contamination. The concern is that some private wells MAY contain perchlorate at levels above drinking water standards. Perchlorate is a chemical used in rocket fuel, fireworks, flares and explosives. Water from Golden State meets drinking water standards, including those for perchlorate.

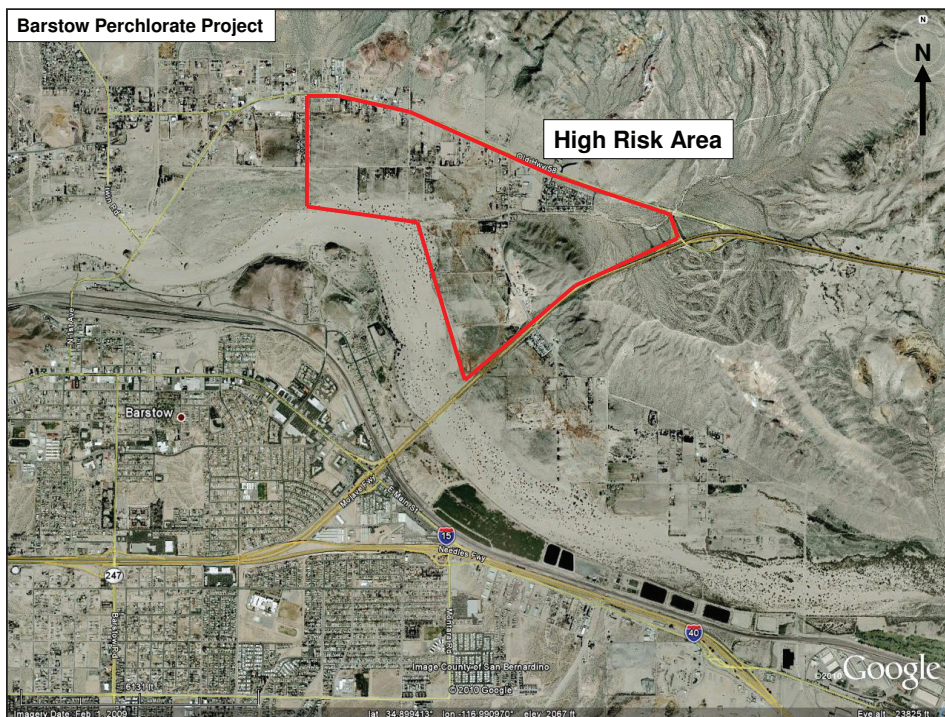
The California Regional Water Quality Control Board, Lahontan Region (Water Board) learned that one municipal well (currently not providing water to the drinking water system) and two private domestic wells contain perchlorate above the California drinking water standard of 6 parts per billion (ppb). A potential source of the perchlorate has been identified, but further investigation is necessary to verify this; there may be other sources as well.

Properties at Risk

Based on where the perchlorate was discovered, private domestic wells within the area bounded by Old Highway 58, Leona Road, the Mojave River and Highway 15 (as shown below) are at risk of contamination. Residents in this area should not use groundwater for drinking or cooking unless they have their well water tested on a regular basis. Well tests provide a snapshot in time of the quality of groundwater but do not represent possible future conditions, as the area of contaminated groundwater has not been defined. If residents intend to continue to use groundwater for drinking or cooking, on-going routine sampling would need to be done until the area of affected groundwater and where it may be headed is defined.

Perchlorate and Drinking Water Standards

California has set the drinking water standard at 6 ppb for perchlorate. This standard is known as a Maximum Contaminant Level, or MCL. The federal government has not yet set an MCL for perchlorate. MCLs are set for consumption purposes only.



Area of concern

Therefore, it is important to not drink or prepare food with water that exceeds an MCL. Boiling the water does not remove the contaminant and will actually concentrate it to a greater level in the water. One may, however, use water that exceeds an MCL for other household purposes such as: bathing, washing dishes, washing clothes, general cleaning and irrigation. MCLs are set for humans; no standards have been established for consumption by animals or for irrigation purposes.

MCLs are set by evaluating health impacts if one million people drank two liters of water daily from the same source for seventy years. Only one illness (usually cancer) out of the one million associated with the contaminant in the water would be allowed at the MCL. MCLs are set by the Federal government and California to provide maximum protection to the population.

Agencies Involved

The lead agency is the Water Board. The Water Board is coordinating with the California Department of Toxic Substances Control and the U.S. Environmental Protection Agency (USEPA). These agencies will try to identify the party or parties responsible for the contamination and order them to perform further investigation and cleanup with the goal of restoring full use of the groundwater. If responsible parties cannot be identified or are unwilling or unable to conduct the investigation and cleanup, these agencies may perform some work to reduce the threat to public health and the environment.

Additional agencies involved in this effort include the California Department of Public Health (DOPH), San Bernardino County Department of Environmental Health Services (EHS), City of Barstow (City) and Mojave Water Agency (MWA). The DOPH is responsible for regulating public water supply systems and has required Golden State Water Company to increase the frequency of perchlorate testing of the wells supplying water for residents and businesses that are connected to the public water supply system. EHS has been instrumental in providing notification of private well testing to residents and notification of possible risk to other private well owners. The City has assisted in this effort by allowing the Water Board to sample its wells as part of the initial effort to determine the extent of groundwater contamination in the area. MWA has been providing assistance in sampling its monitoring wells in the area and helping to compile and evaluate data.

Future Actions

The U.S. Environmental Protection Agency will be conducting a site assessment of the likely source starting in January 2011. If the source of this perchlorate contamination is confirmed and residual material is located, USEPA will remove this residual material.

The Water Board is looking at options for determining the extent of the groundwater contamination and containing its spread. Initially, these efforts will focus on requiring the responsible party or parties to take these actions.

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