



# Barstow Groundwater Perchlorate Contamination

## Background

This fact sheet is to update residents on the results of recent investigations of groundwater contamination in the Barstow area. The chemical, perchlorate, was discovered late last year in wells used by Golden State Water Company and in two private residential water supply wells. Municipal supplies by Golden State Water Company were flushed of the contamination, and contaminated water is not being distributed.

## Perchlorate and Drinking Water Standards

Perchlorate is used in rocket fuel, fireworks, flares and explosives. California has set the drinking water standard at 6 parts per billion (ppb) for perchlorate. This standard is known as a Maximum Contaminant Level (MCL). The federal government has not yet set an MCL for perchlorate. MCLs are set for consumption purposes only. Therefore, it is important not to 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 exist for consumption by animals or for irrigation purposes.

## Recent Activities

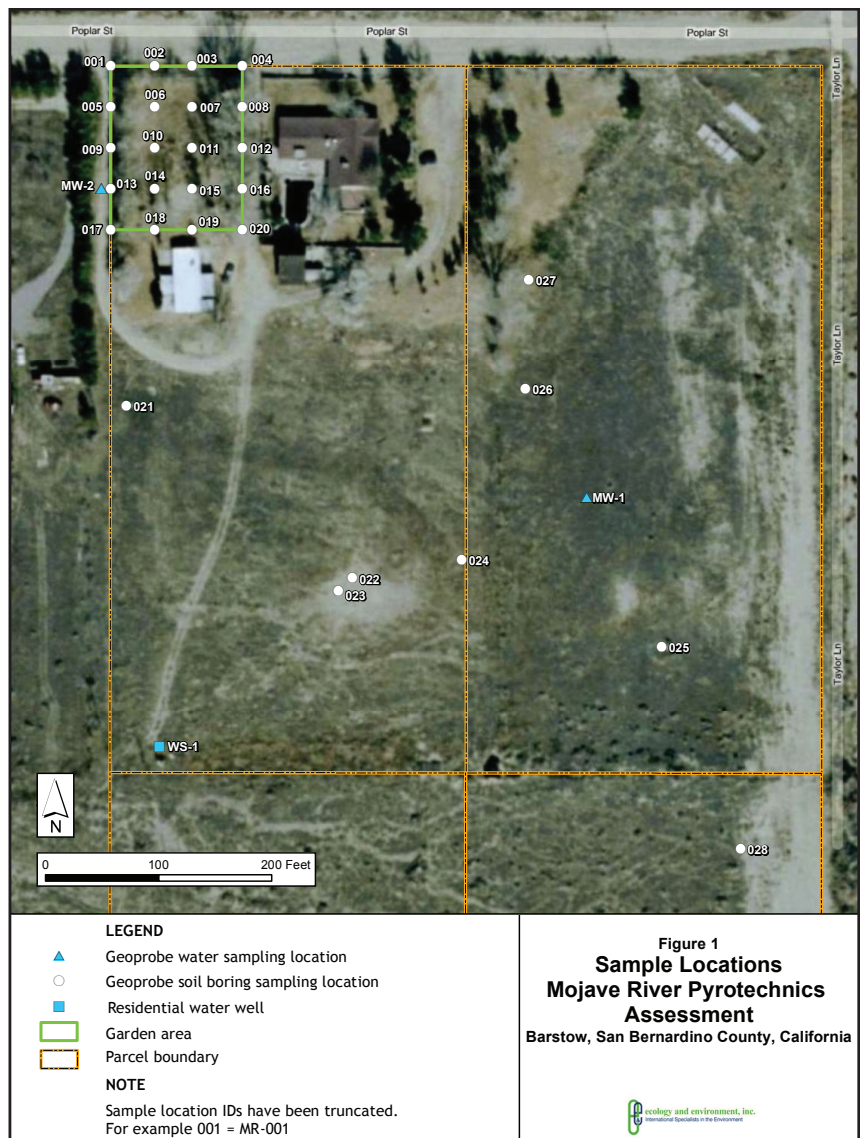
The California Regional Water Quality Control Board, Lahontan Region (Water Board) and the U.S. Environmental Protection Agency (EPA) are working together to determine the source(s) of this groundwater contamination, its extent and if there are any financially viable responsible parties who caused or contributed to the contamination.

After the contamination was discovered, there was concern that private residential wells in the area bounded by Old Highway 58, Leona Road, the Mojave River and the I-15 Freeway might be affected. The Water Board has tested 35 private residential wells in this area. From sampling done late last year two wells showed levels above the drinking water standard. All well owners who had their wells tested have been provided copies of the results. Residents with individual wells in this area are advised not to drink or cook with well water unless it is tested on a regular basis and the test results indicate that the water is safe to consume.

The Water Board is continuing to test groundwater from a number of existing monitoring and domestic water supply wells in the area. Perchlorate has not been detected in groundwater wells in the area north of the Mojave River and east of the I-15 Freeway. Results from testing conducted in April and May indicate perchlorate is still present in the two private domestic supply wells and in two monitoring wells near the city's sewage treatment plant tested by the City of Barstow that were positive when sampled either late last year or earlier this year.

EPA conducted a site assessment earlier this year. Here is what was done and what was learned:

- EPA drilled 28 soil borings near what is considered to be the source area of the contamination; soil sample results showed perchlorate contamination at levels up to 590,000 parts per billion.
- Perchlorate was found in surface soil at the suspected source residence at 30433 Poplar Lane and adjacent property (see map).
- The highest concentration of perchlorate (60,000,000 parts per billion or 6% perchlorate) was found in material sampled at the surface near an old, rusted container.
- Perchlorate was detected for the first time in the private well located at the suspected source residence, 30433 Poplar Street; however, the value was below the drinking water standard. Previous samples from this well did not detect perchlorate.
- EPA conducted a geophysical survey of two five-acre parcels bordered by Poplar Lane to the north; results showed no buried containers.



## Next Steps

Both EPA and the Water Board will continue work on the site this summer. EPA is compiling all the data, and plans to continue with additional assessment activities and may remove material from the site (the exact nature of the activities is still to be determined). The Water Board will conduct a groundwater investigation starting in July or August. This will involve installing borings and groundwater monitoring points at the

Poplar Lane property and at adjacent properties in the direction of groundwater flow, to determine how far the perchlorate contamination extends. The exact locations will be determined after the field work is underway, but will generally extend in the Soapmine Road area both west and east of the I-15 Freeway.

## Contacts

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