Communities for Clean Water

A Northern New Mexico Network

Perchlorate Contamination in Drinking Water for Los Alamos County:

In 2000, the Department of Energy (DOE) and Los Alamos National Laboratory (LANL) detected perchlorate in a drinking water well at Otowi-1. The levels were detected at 2 to 3 parts per billion (ppb). Los Alamos County residents rely on groundwater for drinking. A perched groundwater zone near Mortandad Canyon detected perchlorate at 12 ppb. The perched zone is close to 250 feet above the regional aquifer. The Environmental Protection Agency (EPA) has not established a drinking water standard for perchlorate. There is no federal regulatory standard for perchlorate. However, EPA has established a preliminary clean up goal for perchlorate of 24.5 ppb in water. New Mexico has listed perchlorate as a toxic water pollutant.

What is Perchlorate?

Perchlorate is a naturally occurring and synthetic chemical. It is produced for industrial purposes. Manufactured perchlorate is used in rocket fuel, explosives, pyrotechnics and munitions.

Why Is This Important To You?

Perchlorate is both soluble and insoluble. Perchlorate salts dissolve easily in water and persist for many decades in groundwater and surface water. Since the detection of perchlorate at Otowi-1 in 2000, Los Alamos County has shut down the well.

Exposure:

Humans are exposed to perchlorate in drinking water and through breathing air.

Health Effects:

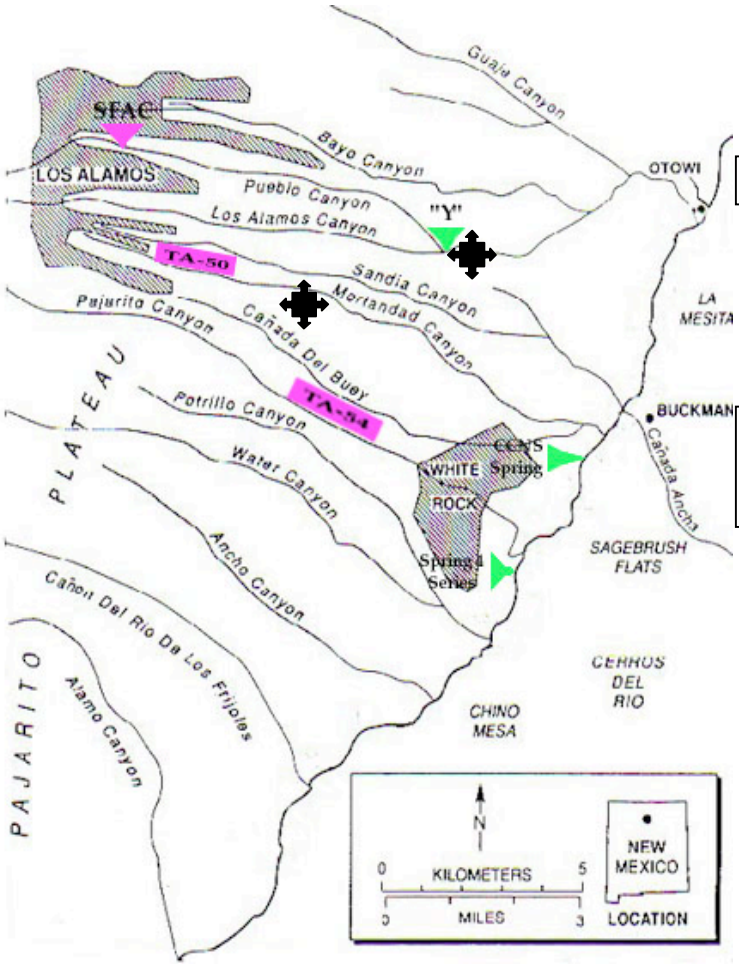
Exposure to perchlorate causes interference with thyroid function. Perchlorate disrupts iodide uptake into the thyroid gland. Iodide is necessary to thyroid hormones. Perchlorate disables proper thyroid function. When changes happen to thyroid hormones levels, thyroid gland tumors may result. Perchlorate exposure to pregnant women and children is especially dangerous. Impairment to the thyroid of a pregnant mother may result in impacts to the fetus and newborn child. The impacts can include behavioral problems, late development and decreased learning capabilities.

Sources:
Los Alamos National Laboratory: http://www.lanl.gov/news/index.php?fuseaction=home.story&story_id=1055
Environmental Protection Agency:
http://www.epa.gov/OGWDW/ccl/perchlorate/perchlorate.html
The Impact Area Groundwater Study Program:
http://groundwaterprogram.army.mil/community/facts/perchlorate.html

Perchlorate Contamination in Drinking Water for Los Alamos County:

Abiquiu Reservoir

Española



Rio Grande

40% of Santa Fe's drinking water comes from the Buckman Wellfield.

Santa Fe

Cochiti Reservoir

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