



# Iowa Department of Public Health

## Hazardous Waste Site Health Assessment Program

### Hills, Iowa, Perchlorate Groundwater Contamination Site Fact Sheet

**Highlights:** Perchlorate contamination has been detected in shallow groundwater located below Hills, Iowa. A majority of the town has shallow private wells, which are used as the source of drinking water for residences and businesses. Women who are pregnant and their fetuses may be more susceptible to perchlorate contamination since pregnancy itself stresses the thyroid function. The effects of exposure to any hazardous substance depends on the dose, duration, how you are exposed, personal traits and habits, and whether other chemicals are present (no other chemicals are present above regulatory levels at this site). Iowa Department of Public Health (IDPH) has completed a Health Consultation for the Hills, Iowa, Perchlorate Groundwater Contamination Site.

#### Background

The U.S. Environmental Protection Agency (EPA) has discovered perchlorate in the groundwater below Hills, Iowa. 148 of 191 wells sampled in Hills in May and September 2003, were contaminated with perchlorate at levels ranging from 3.9 to 66.0 parts per billion (ppb).

The EPA has established a provisional perchlorate cleanup range from 4 to 18 ppb. This means that residences where wells are contaminated with perchlorate above 18 ppb are eligible to be provided with an alternate water supply.

At the present time, 24 residences have been provided with bottled water as an alternate water supply.



#### What is Perchlorate?

Perchlorate is a compound made up of chlorine and oxygen that can either be found in nature or made by man. It has been widely used in rocket fuel, fertilizers, fireworks, road flares, electronic tubes, ammunitions, and in paint and enamel production.

#### How might I be exposed to perchlorate at this site?

- By drinking water that contains perchlorate.
- Perchlorate ***is not*** well absorbed through the skin. So skin exposure is not an important route of exposure at this site.
- Perchlorate contamination in water ***does not*** easily transfer into steam or vapor, so it is unlikely people will inhale the chemical.

### **Why was a Health Consultation for the Hills, Iowa Perchlorate Groundwater Contamination Site written?**

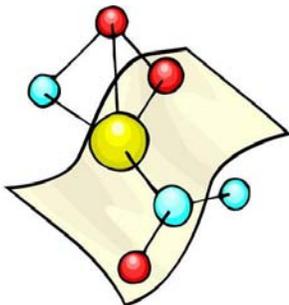
The Health Consultation was written to address community health concerns and to determine if EPA's actions of providing bottled water to residences whose wells contain 18 ppb of perchlorate, or higher, would protect their health.

### **What did the Health Consultation conclude?**

- The Hills Perchlorate site currently poses No Apparent Public Health Hazard. This means that perchlorate contamination is present, but not in amounts likely to cause long term adverse health effects.
- The EPA action level of 18 ppb, and the bottled water provided to residents protects the health of people using these wells, including pregnant women and other sensitive populations.

### **What recommendations are made in the Health Consultation?**

- EPA should continue to monitor the concentration of perchlorate in private well water in Hills.
- EPA should continue their investigation to determine the source of perchlorate contamination.
- Although it may be inconvenient, recipients of bottled water are strongly encouraged to use it for their personal consumption needs.



### **Where can I get a copy of the Health Consultation?**

Two copies of the Health Consultation are available for reading or copying at the Information Repository located at:  
City Hall  
201 North 1<sup>st</sup> Street  
Hills, IA 52235

You may request your own copy of the Health Consultation by contacting the staff listed below.

### **Hazardous Waste Site Health Assessment Program Staff**

Staff are available to answer your questions or provide more information.

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