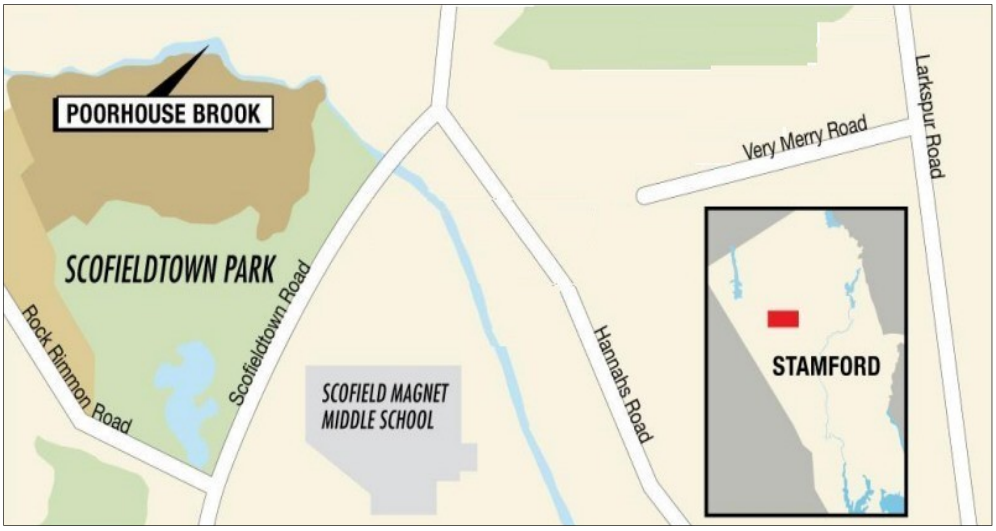
CT Department of Public Health

September 2009

Questions & Answers about Pesticides in Drinking Water Near the Scofieldtown Road Park

Background



This fact sheet has been written to give you information about chemical contamination that has been found in some drinking water wells near Scofieldtown Road Park. Information in this fact sheet should help answer questions about the contamination.

Scofieldtown Road Park is a recreational park that was built on part of the Scofieldtown Landfill. The landfill took household and industrial waste until it closed in the late 1960s. The park was developed soon after and was recently closed due to concerns about soil contamination issues.

Recent well testing near Scofieldtown Road Park found a number of private residential wells on Hannah's and Very Merry Roads with elevated levels of 2 pesticides, **dieldrin** and **chlordane**. The source of this contamination is unknown. It is possible that the contamination may have come from the former landfill. The town is currently in the process of testing more private residential wells in the Scofieldtown Park area. Additional environmental testing will also be done at the Park and former landfill.

What are Dieldrin and Chlordane?

Dieldrin and chlordane are man-made pesticides that were used in the United States for control of a wide range of insects in soil, especially termites. From the 1950s to the 1970s, dieldrin and chlordane were widely used by farmers to kill insects in seed and on agricultural crops. Because of concerns about human exposure and risk, persistence in the environment and danger to wildlife, use of dieldrin and chlordane on food crops was banned in the late 1970s. These pesticides continued to be used to control termites in homes until the late 1980s, when all uses were banned.

What Are The Drinking Water Standards For These Chemicals? How Are The Standards Set?

The CT Department of Public Health (DPH) sets health-based **Action Levels** for many chemicals in **private well water**. Action Levels are used to decide when to provide bottled water or drinking water treatment for residents with contaminated private wells. DPH develops Action Levels in much the same way that the U.S. Environmental Protection Agency sets their enforceable maximum contaminant level (MCL) standards for **public** drinking water.

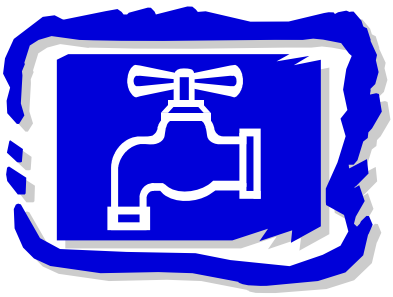
- The Action Level for dieldrin is 0.03 micrograms per liter (ug/L), or parts-per-billion (ppb).
- The Action level for chlordane is 0.3 ug/L.

If a person is exposed to a chemical in their drinking water at a concentration **below** the Action Level, DPH considers their health risk from that exposure to be insignificant.

At concentrations above the Action Level, exposure over **many years** can increase a person's risk of health effects. For this reason, it is important to limit your exposure to drinking water when it exceeds an Action Level. It is also important to know that an increased health risk does not necessarily mean that a health effect will occur.

How Can You Get Exposed to these Chemicals?

If a chemical is present in your water, the most obvious way you can be exposed is through drinking the water (ingestion). Another way you can be exposed is through breathing. During activities such as bathing, doing dishes, or flushing a toilet, chemicals can evaporate into the air and can be inhaled into the body. However, the chemicals found in wells near the Scofieldtown Road Park do not evaporate easily in the air, so breathing is not an important way to be exposed. The chemicals can also be absorbed through the skin when bathing and showering.

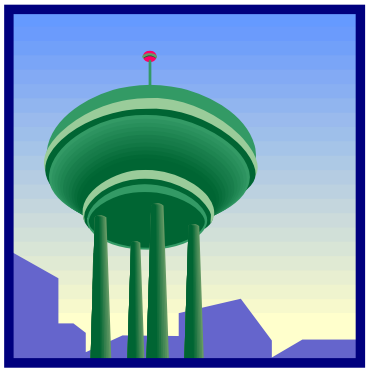


Is the Drinking Water at the Scofield Magnet Middle School Safe to Drink?

Yes, the middle school's drinking water is safe. The Aquarion Water – Stamford System, which supplies public drinking water to the middle school, routinely tests the water for pesticides. The most recent tests, as reported to DPH, show that no pesticides were found in the drinking water.

What Types of Water Supply Systems are Available in the Scofieldtown Area?

Properties in the Scofieldtown area are served by a private well, public supply well or public water distribution system. A private well is a well serving less than 25 people. Private wells are not regulated by DPH and are not subject to any water testing requirements. A public supply well serves at least 25 people. Public supply wells and water distribution systems are regulated by DPH and are subject to some type of water testing requirements.



What are the Health Effects of Dieldrin and Chlordane?

Dieldrin

People such as pesticide sprayers and workers in pesticide-making factories who were exposed to very high levels of dieldrin had nervous system effects such as convulsions. Animals who were given large amounts of dieldrin had nervous system effects as well, and also liver and kidney damage and problems with reproduction. It is not known for sure whether dieldrin causes liver, kidney or reproductive problems in humans. Dieldrin causes cancer in animals but studies in humans have been inconclusive. Based on the evidence in animals, dieldrin is classified as a probable human carcinogen. For this reason, health officials have tried to minimize the public's exposure to dieldrin by developing strict cleanup standards for dieldrin in soil and water.

Chlordane

Chlordane exposure can affect the nervous system, digestive system, and the liver in people and animals. Workers who were also exposed to high levels of chlordane have experienced convulsions. It is unknown whether chlordane exposure is linked to infertility or birth defects. Animals exposed before birth or while nursing developed behavioral effects later. Chlordane is not classifiable as to its carcinogenicity to humans, but it has been shown to cause liver cancer in mice.

Is There a Medical Test to Show if I have Been Exposed to Pesticides?

Dieldrin and chlordane can be measured in your blood, urine and body tissues such as fat. However, medical tests cannot tell you whether the pesticides that may be in your body are from recent exposure or from exposure long ago. Most Americans have low levels of dieldrin and chlordane in their bodies due to the wide use of these pesticides in the past. In addition, medical tests cannot predict whether a person will have health effects. For these reasons, DPH is not recommending any medical tests for residents living near the Scofieldtown Road Park or students and staff at the middle school. However, if you have specific medical questions or concerns, you should speak with your own physician.

What Happens if My Well Water Exceeds Connecticut's Action Levels?

The City of Stamford will provide you with bottled water. As soon as possible, the CT Department of Environmental Protection will provide you with a filter to treat all of the water entering the house.

My Well Water Exceeds the Action Levels, but I Don't have a Whole House Filter Yet. Is it Safe to Bathe, Shower, or Cook with my Well Water?

It is recommended that until a whole house filtration device is provided:

- No baths
- Showers are fine, but you should use a course spray, tepid temperatures (warm, but no hot) and have a bathroom fan running during and immediately after the shower.
- If you are concerned, you can purchase a point of use carbon filter to put on the shower head until a home filter system is installed.

What if I have more questions?

CT Department of Public Health
-Envir. & Occupational Health Assessment
Sharee Rusnak
(860) 509-7740
sharee.rusnak@ct.gov

- Drinking Water Program
Michael Hage
860- 509-7333
michael.hage@ct.gov

Stamford Health Department
Dr Johnnie Lee
203-977-4398
jlee@ci.stamford.ct.us

CT Department of Environmental Protection
Amanda Flad
860-424-3351
amanda.flad@ct.gov

Agency for Toxic Substances and Disease Registry (ATSDR) Fact Sheets

Dieldrin:

http://www.atsdr.cdc.gov/tfacts1.html
http://www.atsdr.cdc.gov/tfacts1.pdf

Chlordane:

http://www.atsdr.cdc.gov/tfacts31.html
http://www.atsdr.cdc.gov/tfacts31.pdf

This fact sheet is funded in part by funds from the Comprehensive Environmental Response, Compensation, and Liability Act trust fund through a cooperative agreement with the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services.