

Questions & Answers about Pesticides in Drinking Water in North Stamford

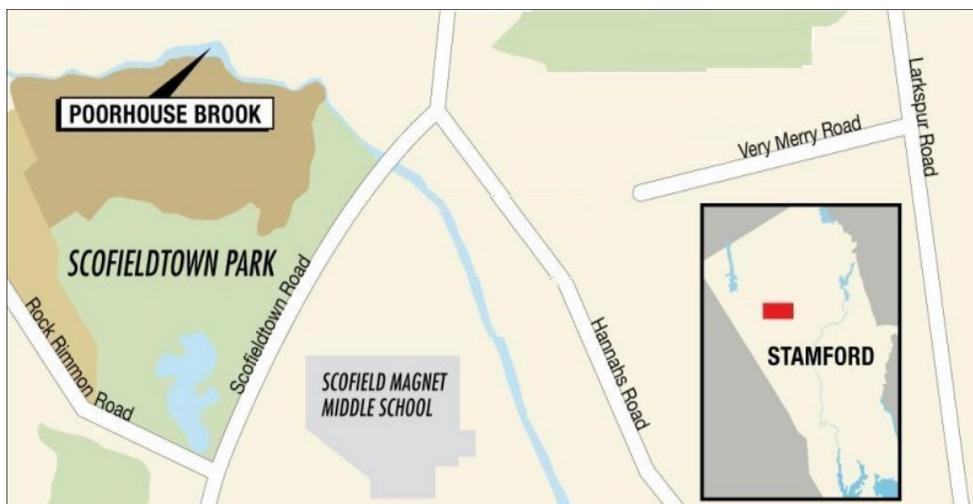
BACKGROUND

This fact sheet has been written to give you information about chemical contamination that has been found in some drinking water wells near the Scofieldtown Road Park and more recently, in other areas of North Stamford. 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 with elevated levels of 2 pesticides, **dieldrin** and **chlordan**e. The source of this contamination is unknown and currently under investigation. Many of these homes are now connected to city water. Because some additional private wells outside of the Scofieldtown area have tested positive for pesticides, the city of Stamford is now recommending that all residents in North Stamford test their wells for these pesticides. The city is currently in the process of developing a random well testing program throughout North Stamford.



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**. When an action level is exceeded, DPH recommends the use of bottled water or drinking water treatment system for residents with contaminated private wells. DPH develops Action Levels in much the same way that the U.S. Environmental Protection Agency sets their standards for **public** drinking water. The action levels are set based on a person drinking 2 liters of water everyday of a lifetime.

- 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 chemicals are 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 pesticides that are found in wells in North Stamford do not evaporate easily in the air, so breathing is not the most important way to be exposed. These pesticides 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 North Stamford 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 in North Stamford 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 the name of a company you can hire to install a whole house granular activated carbon (GAC) filter in your home. It is similar to the small carbon filters that many people install on their faucets. However, a whole house system is larger and more effective than these small filtration systems. Properly monitored and maintained, a GAC filtration system is an extremely efficient and effective method to remove pesticides and many other potentially harmful substances in drinking water. The cost of the filtration system is approximately \$1600.

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 or cooking with the unfiltered water
- Showers are fine, but you should use a coarse spray, tepid temperatures (warm, but not 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?

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-Envir. & Occupational Health Assessment

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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>

CT DPH Fact Sheet for Private Well Water in Connecticut:
http://www.ct.gov/dph/lib/dph/environmental_health

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