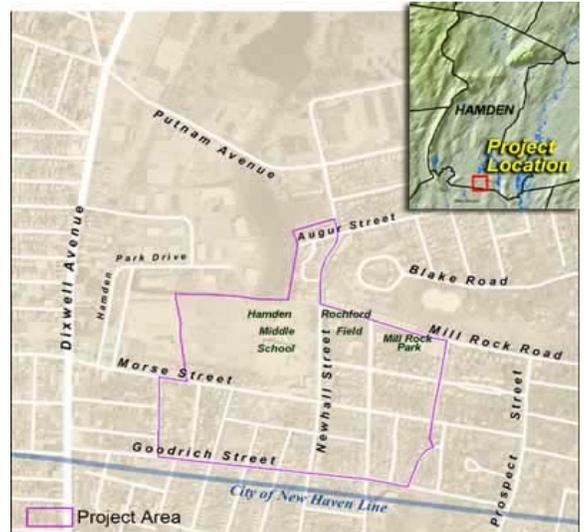


Residential Soils in the Hamden Newhall Street Neighborhood

BACKGROUND

The Connecticut Department of Public Health (CTDPH) has reviewed environmental data for contaminated soils in the Newhall neighborhood to determine whether landfill waste in residential soils is a public health hazard. Based on this data, CTDPH has written a Public Health Assessment (PHA). A PHA looks at environmental sampling data, the concerns of the neighborhood, and readily available health information about the community. The purpose of this fact sheet is to summarize the findings of the **public comment version** of the PHA. This PHA builds on the results of three other documents that looked at landfill waste and health concerns at the Hamden Middle School, two town parks and the Newhall Street School. For more information about the PHA process, contact CTDPH at the number on the back of this fact sheet, or go to www.newhallinfo.org. We are accepting comments and questions about the PHA until May 3, 2004. If you would like a copy of the PHA, please call (860) 509-7742, or go to the web site provided above.



ABOUT THE SITE

The Newhall neighborhood is an 11-block area located in the southern portion of Hamden, Connecticut. During the 1930s, 1940s and 1950s, domestic and industrial waste was disposed in wetlands and other low spots throughout the area. Many of the homes in the neighborhood were built on top of landfill waste. The area has about 238 homes with around 600 residents. The map above shows the boundaries of the known or suspected landfill waste. Not all homes in the mapped area necessarily have landfill waste. The landfill boundaries may change in the future, as the environmental investigations continue.



WHAT CONTAMINANTS WERE FOUND?

The environmental investigations in the Newhall neighborhood have focused on residential soil, both on and below the surface. CTDPH looked at results of over 1000 soil samples from the neighborhood that were collected by the Environmental Protection Agency (EPA), the CT Department of Environmental Protection (CTDEP) and Olin Corp. These included soil samples taken from about 100 different yards. The main contaminants found at elevated (higher than normal) levels are lead, polycyclic aromatic hydrocarbons (PAHs), and arsenic. Lead was the contaminant found most often at levels exceeding CT's cleanup standard for lead in soil. However, not every home that was tested had high levels of contaminants. About one-half of the surface soil samples were above the lead standard. Less than a quarter of the samples had high levels of arsenic or PAHs. Thirteen homes had very high levels of lead. These yards were cleaned up 2 years ago by EPA.



HOW DO WE EVALUATE HEALTH RISKS?

It is important to understand how CTDPH evaluates exposures and how we make **decisions about health risks** for hazardous waste sites. The first step is to find out if there has been exposure to contaminants. Then we try to find out how long people were exposed and to how much contamination. Then we estimate cancer and other health risks. Finally, we come to a conclusion about whether the exposure is likely to cause illness. If we conclude that exposures may have caused disease, we may recommend further studies. Here are some concepts important in evaluating health risks to contaminants:

- **“Exposure”** means that you have come into contact with a chemical (breathing, eating, touching), and it has gotten into your body.
- If you are **not exposed** to a chemical, **it won’t make you sick**.
- CTDPH is required to use accepted science-based methods when we evaluate health risks. When CTDPH analyzes environmental data, we use conservative (most protective of health) health guidelines and approaches to reach our conclusions and make our recommendations.
- It is very difficult to determine if people have gotten sick from a site, even though it may be shown that people were likely exposed. This is because of many complicated factors:
 - ⇒ Were people exposed long enough and to enough of the contaminant?
 - ⇒ What are other exposures?
 - ⇒ What are some lifestyle issues such as diet, smoking, etc?

Just because we may not be able to say that people have gotten sick from contaminants, this does not mean the community should not be concerned or work to clean up the site. Preventing exposures is very important!



WERE PEOPLE EXPOSED? ARE HEALTH EFFECTS LIKELY?

Neighborhood residents could be exposed to landfill contaminants through contact with contaminated soil while working or playing in their yards (eating soil, skin contact, breathing in soil particles). Children may have a greater opportunity for exposure than adults because they play on the ground and have more hand-to-mouth activity. Residents will not be exposed to landfill contaminants buried below the ground surface unless they dig into the soil. CTDPH evaluated the soil data and how people could be exposed and reached the following conclusions about health effects:

- The yards with the highest levels of lead in surface soil may have caused increases in blood lead levels in children in the past. **Fortunately, these homes have been already cleaned up by EPA so exposures are no longer occurring.**
- Based on a review of files on blood lead levels in children in the Newhall neighborhood, no high levels were found that could be related to lead exposure from landfill waste.
- There are still some homes with elevated lead in surface soil. If exposure is not stopped through cleanup of soil or other means, there could be future exposures that might result in increases in blood lead among children.
- Other contaminants in soil such as arsenic and PAHs are unlikely to cause health problems such as cancer or other non-cancer diseases.



PUBLIC HEALTH ACTIONS ALREADY TAKEN

Since the time contamination was first discovered in the Newhall neighborhood in early 2001, a number of activities have taken place to protect neighborhood residents:

- **Soil Removal:** EPA removed contaminated soil from 13 residential properties in late 2001 and early 2002. This soil removal is not a permanent remedy because some contaminants still remain in soils deeper than 18 inches.
- **Home Visits:** In May and June 2001, CTDPH and EPA met with residents of about 76 properties that were sampled by EPA. Results of the soil tests were provided to each resident and next steps were discussed. CTDPH answered questions about exposure and health impacts.
- **Blood Lead Screening:** The Quinnipiack Valley Health District (QVHD) offered free blood lead screening to neighborhood residents on August 1, 2001.
- **QVHD Lead Exposure Follow Up Activities:** CT DEP referred a number of homes to the QVHD for lead exposure follow-up activities. The homes referred for follow-up had elevated lead in surface soil, where young children reside (or visit often), that were *not* scheduled to receive soil removal by EPA. At some of these homes, the source of the lead in soil was lead paint, not landfill waste. Follow-up activities included providing educational materials about lead exposure and observing yards and suggesting ways to reduce soil exposure.
- **Community Health Concerns Survey:** During May and June 2001, staff from the QVHD collected health information from 125 local residents in the neighborhood. CTDPH evaluated the information and concluded that the numbers and types of cancers and other illnesses that were reported did not look unusual. QVHD is currently doing an expanded community health concerns survey in the neighborhood.
- **Methane Screening in Homes:** Beginning in April 2001, the Hamden fire marshal sponsored a voluntary **methane** screening program in the neighborhood. Methane is an explosive gas that can come from some landfills. 12 homes asked for and received methane screening. CTDEP consultants also tested for methane in about 30 homes. *Methane was not detected in any homes.*
- **Residential Structural Evaluations:** Many of the residents have settling problems with their homes. CTDEP hired engineering consultants to investigate this problem. They have identified 42 homes with real or possible settlement problems. This investigation is still going on. During the site cleanup process, CTDEP will repair the homes where needed.
- **Gardening Fact Sheet:** CT DPH has prepared and distributed a fact sheet on how to safely grow and eat fruits and vegetables.



WHAT DOES CTDPH RECOMMEND?

- ◆ Residents should follow the advice in CTDPH's fact sheets regarding how to reduce your exposure to soil and how to grow fruits and vegetables safely.
- ◆ Further investigation of landfill waste in the Newhall neighborhood should proceed as quickly as possible so that a permanent remedy will be in place as soon as possible.
- ◆ QVHD should offer free blood lead screening again in the Newhall neighborhood.



FUTURE ACTIVITIES IN THE NEWHALL NEIGHBORHOOD

- CTDPH will continue to work with the QVHD and CTDEP to provide technical assistance regarding developing sampling plans and evaluating data.
- CTDPH will evaluate new sampling data from the neighborhood as it becomes available and will update the Public Health Assessment, if needed.
- CTDPH will continue to participate in public meetings, availability sessions and other ways to help the neighborhood understand the site health issues.
- CTDPH will work with QVHD to evaluate data from the community health concerns survey.
- CTDPH will work with the QVHD, the Town of Hamden and CTDEP as necessary to ensure that recommendations made in this Public Health Assessment are carried out in a reasonable time frame.
- CTDPH will hold an “open house” for residents to provide comments and have questions answered about the Public Health Assessment.



FOR MORE INFORMATION:



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