

Citizens' Guide to the Dover Township Landfill Health Assessment March 2001

The New Jersey Department of Health and Senior Services (NJDHSS) and the federal Agency for Toxic Substances and Disease Registry (ATSDR) have completed the Dover Township Municipal Landfill and Silverton Private Well Contamination Investigation Public Health Assessment. Public Health Assessments, while not designed to determine the cause of disease observed in the community, do thoroughly review and document what is known about site contaminants, human exposure to these contaminants, and the implications for public health. They also identify actions needed to further evaluate and mitigate or prevent human health effects. A draft version of the document was released in August 1999, underwent a two-month public comment period, and has been revised after consideration of the comments received. The full document is available to any interested citizen. Copies may be obtained from the locations listed at the end of this guide.

What is the purpose of the Dover Township Municipal Landfill Public Health Assessment?

This Public Health Assessment was developed to evaluate the public health significance of exposures to groundwater contamination found in the area of the Dover Township Municipal Landfill (DTML) site, and in private wells in the Silverton area of Dover Township.

Were people exposed to contaminants in area groundwater?

People were exposed to contaminated groundwater through use of private wells.

Private wells adjacent to Dover Township Municipal Landfill: In 1987, nine private wells (of 27 tested) on roads adjacent to the DTML were found to be contaminated with volatile organic compounds (VOCs) and lead. The contaminants found in the private wells were similar to those found in monitoring wells on the landfill, although sources other than the landfill may have contributed to the lead levels.

Silverton section of Dover Township: Residents of the Silverton section of Dover Township had previously complained of chemical odors and tastes in private well water, in 1981. VOCs were found in twenty wells located more than one mile east of the landfill. In sixteen of those wells, at least one contaminant was above health comparison levels. The source of contamination has not been established by the New Jersey Department of Environmental Protection.

Are exposures still occurring?

Exposures to contaminated private wells in these two areas have been eliminated.

Private wells adjacent to DTML: Contaminated wells near the DTML were capped and the community drinking water supply was extended to residents in 1991.

Silverton section: In April 1982, 78 private wells in the Silverton area were capped, and residents were connected to the community drinking water supply.



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What has recently been detected in on-site monitoring wells?

In 1999 and 2000, on-site and off-site monitoring wells, and two private wells immediately adjacent to the landfill, were tested for VOCs, semi-volatile compounds, and metals by the NJDHSS. Several on-site monitoring wells contained VOCs and cadmium at levels above drinking water standards. Styrene-acrylonitrile trimer was found in four on-site monitoring wells. The two private wells were found not to be contaminated.

What are the potential health risks from these exposures?

Private wells adjacent to the DTML: VOCs were found in nine wells near the DTML in 1987. In six of those wells, at least one contaminant was found at levels higher than health-based comparison values, but below those that are known to cause health effects. However, this evaluation is based on only one sample. Also, health effects from exposures to mixtures of contaminants may be different than the health effects from exposure to individual compounds.

The levels of lead measured in three of the wells were higher than health guidelines. Lead at this level may pose a hazard to a developing fetus or child.

Silverton area private well contamination: Sixteen of the twenty wells tested in 1981 had VOC contamination at levels above health based guidelines. In several wells, VOCs were found at levels of public health concern. Exposures to these contaminants at the levels measured may result in effects to the liver and kidneys, and may pose a low increase in cancer risk.

In other wells, contaminant levels were only slightly above health based guidelines, so that exposures were unlikely to result in health problems. However, as discussed above, the effects of exposures to mixtures is unknown. It is also not known how long exposures occurred.

What are the conclusions and recommendations of the report?

After assessing the weight of evidence, the NJDHSS and the ATSDR conclude that the DTML represented a **public health hazard because of past exposures** to ground water contaminants. There is evidence that the DTML site contaminated nearby private wells on Silverton Road with volatile organic compounds and possibly lead. The DTML is considered to represent **no apparent public health hazard at present**, because there are no known current exposures to contaminated ground water. Groundwater investigations currently being conducted by Dover Township will help determine the nature and extent of site-related contamination.

The Silverton area private well contamination is also considered to have represented a **public health hazard because of past exposures**. Many of the wells sampled contained more than one volatile organic compound at levels well above health comparison levels. Since these wells are no longer in use, the area poses **no public health hazard at the present time**.

This Public Health Assessment supports the need to consider the potential for exposures discussed in this document in the on-going epidemiologic study of childhood cancer in this community.

How can I get a copy of the full report?

For a full copy of the report, please contact:

NJDHSS Toms River Field Office
(732) 505-4188

NJDHSS, Consumer and Environmental
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(609) 633-2043

or visit our web site at www.state.nj.us/health