

PRELIMINARY
Health
Assessment
for

WOODLAND ROUTE 532 DUMP

WOODLAND TOWNSHIP, BURLINGTON COUNTY, NEW JERSEY

NOVEMBER 15, 1988

Agency for Toxic Substances and Disease Registry
U.S. Public Health Service

THE ATSDR HEALTH ASSESSMENT: A NOTE OF EXPLANATION

Section 104(i)(7)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, states "...the term 'health assessment' shall include preliminary assessments of potential risks to human health posed by individual sites and facilities, based on such factors as the nature and extent of contamination, the existence of potential pathways of human exposure (including ground or surface water contamination, air emissions, and food chain contamination), the size and potential susceptibility of the community within the likely pathways of exposure, the comparison of expected human exposure levels to the short-term and long-term health effects associated with identified hazardous substances and any available recommended exposure or tolerance limits for such hazardous substances, and the comparison of existing morbidity and mortality data on diseases that may be associated with the observed levels of exposure. The Administrator of ATSDR shall use appropriate data, risk assessments, risk evaluations and studies available from the Administrator of EPA."

In accordance with the CERCLA section cited, ATSDR has conducted this preliminary health assessment on the data in the site summary form. Additional health assessments may be conducted for this site as more information becomes available to ATSDR.

PRELIMINARY HEALTH ASSESSMENT
WOODLAND ROUTE 532 DUMP
BURLINGTON COUNTY
WOODLAND TOWNSHIP, NEW JERSEY
November 15, 1988

Prepared by:
Office of Health Assessment
Agency for Toxic Substances and Disease Registry (ATSDR)

Background

The Woodland Route 532 Dump site is listed by the U.S. Environmental Protection Agency (EPA) on the National Priorities List (NPL). The 35-acre facility was used by several chemical manufacturers in the 1950s and early 1960s for open burning, dumping, and burial of drummed chemical wastes. The site has several sludge piles, sandy depressions containing drums, and a pond holding thick oil.

The inactive site has no access restrictions.

The following documents were provided to ATSDR for review: Hazardous Waste Site Investigation, September 15, 1981; Site Investigation Report, 1982; Site Investigation Report Addendum memorandum, October 13, 1982; and Hazard Ranking System Package, 1983. These documents form the basis of this preliminary health assessment.

Environmental Contamination and Physical Hazards

On-site contamination consists of pentachlorophenol (182 ppb) in groundwater. Although air sampling has not been conducted, it was reported that levels of chemicals in the air were judged by investigators to pose a respiratory hazard during site-invasive sampling procedures. Off-site contamination consists of trace amounts of 2,2-bis (p-chlorophenyl)-1,1,1-trichloroethane (DDT), and its environmental degradation products DDE and DDD, in surface water.

It is reported that there are sludge and liquid-containing depressions of unknown depth covered with a sand layer. Given that children's footprints have been observed on-site, this site appears to pose a significant physical hazard to visitors.

Potential Environmental and Exposure Pathways

The potential environmental pathways of concern at this site are contamination of groundwater by percolation of contaminants through the soil, migration of surface soils, waste chemicals, and surface water off-site, and volatilization of waste chemicals. The human exposure pathways of concern are ingestion of contaminated groundwater, ingestion

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of contaminated surface soils and surface water, dermal absorption of chemicals from contact with surface soil and water, and inhalation of volatile organic chemicals.

Demographics

The area around the site is sparsely populated. There are no residences within a three mile radius of the site, and only 900 people live within four miles of the site. The closest residences have private well water; no information is given concerning their location relative to the local or regional groundwater movement.

Evaluation and Discussion

There is limited data concerning contaminants in environmental media for this site. The site history indicates that much of the material disposed of on-site was burned, reducing the amount of material suitable for volatilization or solubilization. The little information available was last collected in 1982 and it assessed the impact on surface water adjacent to the site. Based on these data, the surface waters did not appear to be adversely impacted. Little data are available concerning the degradation of the groundwater in the area, and no information is available concerning the potential for possible groundwater contamination to reach private wells. The conclusion reached by investigators in 1981 was that additional wells were needed to assess the impact of the site contaminants on groundwater.

There is observational evidence that members of the public visit the site, potentially coming in contact with contaminated waste material, soil, and surface water. Dermal absorption and ingestion of hazardous substances could occur. Inhalation of volatile organic chemicals also is a possibility if the solidified surface of the waste ponds is disturbed. The physical hazard to visitors is judged to be significant since the hazardous areas on the site are disguised by a sand layer.

ATSDR has prepared, or will prepare, Toxicological Profiles on the site contaminants (with the exception of DDT) noted above.

Conclusions and Recommendations

Based on the available information, this site is considered to be of potential public health concern because of the risk to human health caused by the possibility of exposure to hazardous substances via contact with surface materials on-site. The potential for trespass and contact with contaminated materials on this site should be evaluated currently. It is not clear that efforts have been made to restrict the migration of

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contaminants off-site; without more recent data, we have to conclude that ingestion of contaminated surface water and groundwater may be of concern also. Additional data on the identification and concentration of contaminants in these media are needed to negate this concern.

Further environmental characterization and sampling of the site and impacted off-site areas during the Remedial Investigation and Feasibility Study (RI/FS) should be designed to address the environmental and human exposure pathways discussed above. When additional information and data become available, e.g., the completed RI/FS, such material will form the basis for further assessment by ATSDR at a later date.

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