

**PRELIMINARY
Health
Assessment
for**

HORSTMANN'S DUMP

EAST HANOVER, NEW JERSEY

JULY 7, 1988

Agency for Toxic Substances and Hazardous Waste Investigation
U.S. Public Health Service

PRELIMINARY HEALTH ASSESSMENT
HORSTMANN'S DUMP
EAST HANOVER, NEW JERSEY
July 7, 1988

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

Background

The Horstmann's Dump is proposed by the U.S. Environmental Protection Agency (EPA) for listing on the National Priorities List (NPL). A former operating landfill, located in East Hanover, New Jersey, the one acre site allegedly received hazardous wastes during the period of 1965 to 1973. Access to the site is unrestricted.

Environmental Contamination and Physical Hazards

Cadmium was reported in on-site soils at 34 ppm. Off-site sediments contained polychlorinated biphenyls, toluene, polycyclic aromatic hydrocarbons, and chlorobenzene, all at less than 1 ppm, and cadmium at 12 ppm. An off-site surface water sample detected nickel at 3,240 ppm. No physical hazards were noted.

Potential Environmental and Exposure Pathways

The Horstmann's Dump site has not been adequately characterized to allow discussion of environmental or exposure pathways, although there are indications of off-site migration of contaminants. There may be the potential for air, soil, and water (ground and surface) contamination as a result of this site. Human exposures may result from ingestion of, or dermal contact with, soils, surface or groundwaters and/or inhalation of contaminant-entrained fugitive dusts or volatiles from groundwaters. Exposure to contaminants through the food chain does not appear likely for this site.

Demographics

Approximately 500 persons live within one mile of the site, with the closest residence about one-half mile away. Single family houses and office buildings are located in this generally suburban area.

Horstmann's Dump, East Hanover, New Jersey

Evaluation and Discussion

The landfill is located in a flood plain where the water table is very near the surface. Such conditions present the potential for continued contamination of ground and surface waters, as well as soils and sediments.

Numerous private and several municipal wells are located within one mile of the site. The impact of the site on these wells is unknown. Site contaminants have apparently reached surface waters (sediments) in the area; the potential for exposure to these contaminants is unknown. Exposure to on-site soil contaminants may be of health concern, though the potential for exposure appears unlikely.

ATSDR has prepared, or will prepare, Toxicological Profiles on the site contaminants 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 the above-named human exposure pathways. Information currently available on this site is not adequate for ATSDR to determine more definitively if a public health threat exists. Such a determination would require additional information on contaminants released, populations potentially exposed, and environmental pathways through which the contaminants can reach these populations. At a minimum, future investigations of this site should include a survey of wells used in the area, samples of residential wells for known site contaminants (or priority pollutants), and a characterization of the hydrogeology of the area.

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.