

**SITE REVIEW AND UPDATE**

**WILLIAMS PROPERTY**

**MIDDLE TOWNSHIP, CAPE MAY COUNTY, NEW JERSEY**

**CERCLIS NO. NJD980529945**

**Prepared by:**

**New Jersey Department of Health  
Under Cooperative Agreement with the  
Agency for Toxic Substances and Disease Registry**

## **SUMMARY OF BACKGROUND AND HISTORY**

The Williams Property site is a 5.6 acre tract of wooded land located in a rural area of Middle Township, Cape May County, New Jersey (Figure 1). The site is a residential lot, which formerly contained a single residence, surrounded by property zoned for agricultural and residential use. Properties directly northwest and southeast of the site are also residential properties. The Williams Property is ringed to the northwest, southwest and southeast by gravel/sand pits, some of which contain water during at least part of the year.

In August 1979, approximately 150 55-gallon drums of liquid chemical waste and sludges were emptied at the Williams Property. The drums were punctured and the materials were allowed to flow directly on the ground adjacent to the Williams residence.

In response to the chemical release, the New Jersey Department of Environmental Protection (NJDEP) began investigating the site to determine the site's impact on the surrounding environment. These investigations, which began in November 1979, determined that the surface soil and groundwater beneath the site were contaminated by a wide variety of organic chemicals and several metals.

The NJDEP initiated an emergency cleanup action in June 1980. They removed approximately 1200 cubic yards of contaminated sludge and soil. Environmental monitoring conducted by NJDEP between 1982 and 1985 indicated that contaminants still remained on the site in the soil and groundwater. Nearby residences were hooked up to the municipal water supply in October 1986. Local residents, except for the Williams private well, had not been exposed to the contamination plume prior to the municipal water hook up. The Williams Property site was listed on the National Priorities List (NPL, a.k.a. Superfund) in September of 1983.

A NJDEP contractor conducted a Remedial Investigation/Feasibility Study (RI/FS) for the Williams Property site. The RI, completed in April 1987, revealed that a plume of organic contaminants is present in the groundwater under the site, and is moving to the east/northeast at approximately 90 feet per year. By 1987 the plume had extended off site and was estimated to be less than 300 feet wide but as long as 1,400 feet from the contaminated soil at the spill site. The FS was completed in July 1987.

A Record of Decision (ROD) for the Williams Property site was issued on September 29, 1987. The ROD specified the following remedy:

1. Excavation and off-site disposal of the remaining contaminated soil.
2. Alternate water supply for any residents with private wells impacted by the site.
3. Extraction and treatment of contaminated groundwater and recharge back to the

aquifer.

In October 1990, the U.S. Environmental Protection Agency (USEPA) initiated actions to address soil contamination remaining on the site. Activities included: the construction of gates, the disposal of full and empty 55-gallon drums and 5-gallon pails found on the site as well as the disposal/recycling of gas cylinders, the excavation and off-site incineration of approximately 1500 tons of contaminated soil, and the installation of warning signs around the site. These activities were completed in July 1991. By conducting the 1990-1991 work, the USEPA implemented the soil portion of the remedy as defined in the 1987 ROD.

A Health Assessment for the Williams Property site was prepared for the Agency for Toxic Substances and Disease Registry (ATSDR) on February 23, 1988. The Health Assessment noted that while there were many potential human health concerns, the site did not represent a significant public health threat.

Potential human exposure pathways cited in the 1988 Health Assessment included: ingestion; dermal contact; and soil ingestion. Contaminants of concern at the site consisted largely of volatile organic compounds and inorganic compounds (e.g., lead and chromium).

Past public health and community concern about the Williams Property site have focused on the quality of the groundwater surrounding the site.

In its final conclusion, ATSDR determined that the Williams Property site did not represent a significant public health threat. Several potential human health concerns could not be addressed because of insufficient environmental and demographic data. These potential concerns related almost exclusively to the Williams residence. The Williams' well was the only documented well with contamination. The Williams family was also drinking from a contaminated monitoring well after their private well was sealed.

ATSDR recommended that more site data be collected to fill several data gaps. In particular, more data was needed regarding off-site groundwater contamination. The Health Assessment also recommended the following: 1) the Williams' well should remain closed and they should discontinue using the monitoring well for domestic purposes; 2) the residents surrounding the site should continue to use the public water supply until the plume has been contained; 3) access to the site should be limited to eliminate exposure to contaminated soil; 4) the physical hazard of the drum carcasses should be mitigated; 5) full characterization of the contaminant plume, monitoring at the Bishop residence and other areas beyond Siegtown Road (east-northeast of the site) were warranted and; 6) additional demographic data were needed.

## **CURRENT SITE CONDITIONS**

On April 19, 1994, J. Pasqualo and J.J. Winegar of the NJDOH visited the Williams Property site accompanied by a representative of the Cape May County Health Department. In addition, representatives of NJDEP were present. The following observations were made during the site visit:

- The Williams Property site is currently in the remedial design and construction phase. Work trailers were the only structures on the site, as the original Williams residence has been razed.
- Heavy construction equipment and NJDEP contractors were actively clearing a section of the site in preparation of the installation of the pumps and filters to be used for the groundwater remediation process.
- More than 500 tons of trash and debris, including the house and some trees, have recently been removed from the property.
- There is no contaminated soil remaining on-site.
- The site is rural and remote. There are, however, several private homes adjacent to and across from the entrance to the site. There are numerous homes along Siegtown Road (Figure 2). Some of these homes may be in the path of the contamination plume.
- According to the local health department (personal communication) the nearby residential wells are not sealed and some residents on Siegtown Road claim they are not connected to the public water supply. This is in spite of the fact that public water connections were offered to each of these residents.
- Some residents on Siegtown Road are using their residential wells as a non-potable water source.

## **CURRENT ISSUES**

Conditions at the Williams Property site have changed significantly since the 1988 ATSDR Health Assessment. The persons residing at the Williams Property have abandoned the site and all of the contaminated soil and physical hazards have been removed by the NJDEP and the USEPA. Contamination has never been found in the residential wells sampled and there are no documented on-going human exposures to site related contaminants.

At the time the original ATSDR health assessment was written, there was a great deal of concern regarding off-site ground water contamination and it was noted that the full extent of the off-site contamination of the groundwater was not known. Currently, there are additional data from numerous monitoring wells (Figure 2) that define most of the contaminant plume. The full extent,

however, is still not known as the leading edge has not reached monitoring wells MW 90-10A and B which are about 1500 feet northeast of the site. Since the source of the contamination, the site contaminated soil, had been removed the plume has moved as a "slug" of contaminated groundwater. The plume is still thought to be shaped like long narrow balloon about 300 feet wide. Monitoring wells east of the site, (e.g. MW 85-2A and B and MW 85-9A and B) have never shown site related contaminants, however, the most recent data for these wells is from 1990. Therefore, while unlikely (based on the known movement of the plume), it is possible that the contamination has spread eastward towards residents on Siegtown Road.

Plume characterization is currently underway at the site as part of the effort to design and implement the proposed groundwater pump and treat remedial system.

According to each of the site documents reviewed for this SRU, all residents in the vicinity of the site have reportedly been connected to the municipal water supply. During a public meeting on this site held by NJDEP (4/14/94), there were a few residents of Siegtown expressing concern that either they had never connected to public water or they were used their well water for non potable purposes (e.g., watering gardens and filling swimming pools). An examination of water usage records for Middle Township (4/19/94) did reveal some inactive accounts on Siegtown Road, but it was not clear whether these residences were vacant or occupied. The NJDEP (personal communication) maintains that all of the residences are hooked up. It is clear that, since the old residential wells were never sealed, some residents use groundwater for some non potable sources of water. During the public meeting, the NJDEP representatives reinforced the issue with local residents that they should not be using their residential wells for any purpose.

## CONCLUSIONS

Conclusions made in the 1988 ATSDR Health Assessment, that the Williams Property site did not represent a significant public health threat, continue to be true. All of the recommendations in the Health Assessment, with the exception of the recommendation that surrounding residents use only the public water, have been addressed.

Based on the current conditions at the Williams Property, there are no known human exposures to site related contaminants occurring at the site; therefore, the site currently poses a no apparent public health hazard. Furthermore, with the exception of the Williams family, there are no past exposures related to this site. Potential adverse health effects regarding human exposures to the contaminated water from the Williams' residential well were discussed in the 1988 ATSDR Health Assessment. These past exposures represent a public health hazard. The Williams' have abandoned the property and their current whereabouts are not known.

While it appears that all of the nearby residences are connected to the public water supply, it is possible that one or two residences on Siegtown Road may not be connected. Other residents that are connected have continued to use their residential wells for non-potable uses, such as vegetable

gardens and pools. Under current site conditions and contaminant plume movement it is unlikely that these wells have been impacted by the site. There is, however, no recent data to confirm these wells are unaffected by the contaminant plume.

The NJDEP's current groundwater sampling efforts to design and implement the proposed groundwater pump and treat remedial system should be sufficient to fully characterize the contaminant plume.

Recommendations in the previous ATSDR Health Assessment regarding a need for additional demographic data are no longer valid because there are no known human exposures at the site other than the Williams family.

Remedial activities implemented at the Williams Property site are sufficient to address concerns of the ATSDR, the NJDOH, and the community regarding the site. The remedial actions are consistent with protection of the public health.

## **RECOMMENDATIONS**

Recommendations made in the original health assessment which are still valid include:

1. Residents in the surrounding area should continue to use the public water supply. This is particularly important in the region where the contamination plume may have moved eastward towards residences on Siegtown Road.
2. The contaminant plume needs to be fully characterized.

New recommendations based on current site conditions include:

1. A residential well survey of the Siegtown Road area should be initiated to determine the groundwater usage of potentially effected residents .
2. A resampling of several of the residential wells closest to the site is indicated. This survey should include the Polish American Club and the first occupied residence east of the site on Siegtown Road.

## **RECOMMENDATIONS OF THE HEALTH ACTIVITIES RECOMMENDATIONS PANEL (HARP)**

The data and information developed in the Site Review and Update for the site, Williams Property, Cape May County, New Jersey, has been evaluated to determine if follow-up actions may be indicated. No further HARP public health actions are indicated at this time.

## **PUBLIC HEALTH ACTION PLAN**

The purpose of the public health action plan (PHAP) is to ensure that this Site Review and update not only identifies public health hazards but also provides a plan of action designed to mitigate and prevent adverse human health effects resulting from exposure to hazardous substances in the environment.

### **Actions Undertaken by ATSDR/NJDOH:**

1. These data and information developed in the Site Review and Update have been evaluated by ATSDR/NJDOH to determine if public health concerns, regarding potential human exposure pathways associated with the Williams Property site.

### **Actions Planned by ATSDR/NJDOH:**

1. The ATSDR/NJDOH will recommend the Cape May County Health Department initiate a residential well survey of the Siegtown Road area, to determine the groundwater usage of potentially effected residents. In addition, the local health department has agreed to resampling of several of the residential wells closest to the site.
2. The ATSDR/NJDOH and the Cape May County Health Department will coordinate with the appropriate environmental agencies to develop plans to cease exposure to site contaminants if potential human exposures are discovered during the aforementioned actions.
3. ATSDR will reevaluate and expand the Public Health Action Plan (PHAP) when needed. New environmental, toxicological, health outcome data, or the results of implementing the above proposed actions may determine the need for additional actions at this site.

## **CERTIFICATION**

The Site Review and Update for the Williams Property site was prepared by the New Jersey Department of Health under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). It is in accordance with approved methodology and procedures existing at the time the site review and update was initiated.

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Technical Project Officer, SPS, RPB, DHAC

The Division of Health Assessment and Consultation (DHAC), ATSDR, has reviewed this Site Review and Update and concurs with its findings.

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Division Director, DHAC, ATSDR

## **DOCUMENTS REVIEWED**

1. Woodward-Clyde Consultants, Inc., April 1987. Remedial Field Investigation at Williams Property Site, Cape May County, New Jersey.
2. Woodward-Clyde Consultants, Inc., July 1987. Final Draft Feasibility Study for Williams Property Site, Cape May County, New Jersey.
3. Record of Decision, Williams Property Site, Cape May County, New Jersey, NJDEP, September 29, 1987.
4. Health Assessment for Williams Property Site, Cape May County, New Jersey, ATSDR, February 23, 1988.
5. Lawler, Matusky & Skelly Engineers, Williams Property Remedial Design, Phase II -Task 4, Final Design Report, July 1993.
6. Lawler, Matusky & Skelly Engineers, Letter to John Usmini, NJDEP, Re: Williams Property, January 13, 1994.

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