

Site Review And Update

MYERS PROPERTY

FRANKLIN TOWNSHIP, HUNTERDON COUNTY, NEW JERSEY

CERCLIS NO. NJD980654198

SEPTEMBER 29, 1993

REVISED

JANUARY 5, 1994

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service

Agency for Toxic Substances and Disease Registry

Division of Health Assessment and Consultation

Atlanta, Georgia

Site Review and Update: A Note of Explanation

The purpose of the Site Review and Update is to discuss the current status of a hazardous waste site and to identify future ATSDR activities planned for the site. The SRU is generally reserved to update activities for those sites for which public health assessments have been previously prepared (it is not intended to be an addendum to a public health assessment). The SRU, in conjunction with the ATSDR Site Ranking Scheme, will be used to determine relative priorities for future ATSDR public health actions.

REVISED SITE REVIEW AND UPDATE

MYERS PROPERTY

FRANKLIN TOWNSHIP, HUNTERDON COUNTY, NEW JERSEY

CERCLIS NO. NJD980654198

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 Myers Property Site (MPS) is located on Lower Kingtown Road in Franklin Township, Hunterdon County, New Jersey (Figure 1). The site includes approximately five acres which was owned by the Myers family from 1971 to May 1993, and another two acres of undeveloped land south of Lower Kingtown Road owned by the State of New Jersey and designated as wetlands. Adjacent to and just north of MPS lies the Cakepoulin Creek (Figure 2). The creek is a trout production stream stocked by the New Jersey Department of Fish and Game. Surrounding properties are either undeveloped or used for residential and/or agricultural purposes.

Three companies are known to have been involved in pesticide handling or manufacturing while owning and operating on the MPS: W.A. Allen Company; Elko Chemical Works; and the Pennsylvania Salt Manufacturing Company (a.k.a.- Pennwalt Corporation and Atochem North America, Inc.).

The W.A. Allen Company owned the site from 1928 to 1932, and may have operated on the site, formulating fertilizer-pesticide mixtures for residential use. Elko Chemical Works operated a pesticide production plant at the site from 1942 to 1945, manufacturing the insecticide DDT (dichlorodiphenyltrichloroethane). The Pennsylvania Salt Manufacturing Company bought the property in 1945 and produced DDT for two years until it sold the property to Associated Terminal Inc. in 1947.

Little additional information is available regarding other on-site activities of Associated Terminal, however it is known that they leased the property to the Clinton Chemical Company from 1953 to 1959. The Clinton Chemical Company produced anhydrous aluminum chloride on the site.

In April 1980, the New Jersey Department of Environmental Protection and Energy (NJDEPE) conducted a site investigation of MPS in response to concerns raised by Franklin Township officials regarding possible hazardous materials on the site. Samples collected by NJDEPE identified the presence of asbestos, heavy metals, pesticides, chlorinated benzenes, polychlorinated bipenyls (PCB's), phenol, tetrachloroethane, and 1,1,2-trichloroethane. DDT at high levels was found in the surface soil samples collected near the barn. The MPS was listed on the National Priorities List (NPL, a.k.a. Superfund) in 1983.

In 1984, at the request of NJDEPE, the United States Environmental Protection Agency (USEPA) took over the lead for remedial activities at the site. They began by immediately repacking and removing any deteriorated drums from the site.

The USEPA began to characterize the site's contamination in 1985 and a Remedial Investigation (RI) was initiated in 1986. The RI was conducted in three phases and finally completed in 1988. Subsequent to the RI, there has been additional residential well sampling in 1988 and 1992, and an additional groundwater investigation conducted in 1989.

The final Feasibility Study (FS) report was completed in February 1990 and updated in July 1990. The Record of Decision (ROD) was signed in September 1990.

The Agency for Toxic Substances and Disease Registry (ATSDR) has prepared five separate public health consultations on the MPS. These reports are summarized as follows: 1) In April 1984, ATSDR characterized the site as an imminent threat to public health and recommended restricting access and further environmental sampling; 2) In June 1985, ATSDR reviewed sampling data from MPS and made additional recommendations regarding site access, education and additional sampling; 3) The third consultation, October 1986, was provided as an update to the second consultation and ATSDR's recommendations remained unchanged; 4) In July 1987, ATSDR provided a consultation to evaluate the pig farming on the Myers property. They concluded that the use of these animals should be restricted for public health reasons; and 5) The final consultation, October 1987, provided a review of wipe sampling data collected from MPS. They concluded that access should remain restricted, dioxin contamination needed further characterization, and no animals should be allowed on the site.

A Preliminary Health Assessment for the MPS was prepared by the ATSDR in November 1988. The Health Assessment noted that contaminated groundwater, soil and sediment, surface water, and possible ingestion of bioaccumulated contaminants in the food chain were the identifiable human exposure pathways associated with the site. It also concluded that human exposure was possible through inhalation of contaminants volatilized into the air. Contaminants of concern at the site consisted largely of organochlorine residues including DDT, DDE (1,1'-(2,2-dichloroethenylidene bis[4-chlorobenzene]) and DDD (2,2-Bis(p-chlorophenyl)-1,1-dichloroethane). In addition, dioxin was identified in on-site soil samples. Off-site soil sampling, from the west bank of the Cakepoulin Creek, identified DDT and DDE.

The 1988 Preliminary Health Assessment did not identify any community health concerns. Residents have expressed concern, in the past, about water quality in the Cakepoulin Creek and the impact of the MPS on their well water.

In the final conclusion of the 1988 Preliminary Health Assessment, the ATSDR categorized the MPS to be a public health concern because the likelihood of human exposure to hazardous substances at concentrations of concern. ATSDR recommended that more site data be collected in order to adequately assess the impact of the site on the public health. These data include: contaminants released, populations potentially exposed, and environmental pathways through which the contaminants can reach these populations.

In April 1989, the Preliminary Health Assessment was amended to include the ATSDR comments on the public health significance of the DDT soil "clean up" level. Based on available information, the ATSDR concluded that the 10 ppm soil clean up level proposed by USEPA for MPS and adjacent wetland areas can reasonably be anticipated to be protective of human health.

CURRENT CONDITIONS OF SITE

On June 9, 1993, J. Pasqualo, J.J. Winegar, and N.P. Singh of the New Jersey Department of Health (NJDOH) visited the MPS accompanied by the USEPA Remedial Project Manager, the NJDEPE Site Manager, representatives of the Hunterdon County Department of Health (HCDOH), and a representative of the potentially responsible parties (PRP) for the site, Elf Atochem North America.

The site visit included a formal presentation by the USEPA, and an on-site tour. The following observations were made during the site visit:

- The MPS is located in a rural area and most of the property lies along the southern bank of the Cakepoulin Creek.
- Structures observed on the site include: a farm house, which until May 1993 was occupied by the Myers family, a warehouse, a barn, and two former process buildings. The outbuildings appeared to be dilapidated.
- At the time of the site visit, a "chain link" perimeter fence was being installed along Lower Kingtown Road.
- The area of the site facing the Cakepoulin Creek was also fenced and posted with signs reading "No Trespassing" and "Hazardous Site".

According to the Health Officer for the HCDOH, there was a suspicious fire on May 18, 1993 which damaged part of the previous residence of the Myers' family. The fire is under investigation by the local fire marshal.

Conditions at the MPS, since the 1988 Preliminary Health Assessment, have not changed physically except for the addition of the fence, and the site has become overgrown with grass and weeds. Environmental conditions have remained constant.

In light of current site conditions, the former conclusion in the Preliminary Health Assessment of a public health concern does not remain valid. As long as the site remains secure from site trespassers, it is unlikely that exposure to site contaminants could occur. However, site trespassers could be exposed to site contaminants at levels of public health concern as concluded in the Preliminary Health Assessment.

There has been a considerable amount of additional site data collected which has further characterized current contamination at the site.

Sampling of residential groundwater wells during the RI, Phase I and II, did not indicate contamination. Results of samples collected from monitoring wells during the RI Phase III revealed the presence of benzene, chlorinated benzenes, DDT and metabolites, arsenic, and dioxins (Figure 3).

Results of surface water samples from the Cakepoulin Creek, a spring, and a drainage ditch east of the Myers property indicated that the creek was free of site contaminants but the other two surface water areas showed contaminants of concern.

CURRENT ISSUES

Based on the Phase I, II, and III Remedial Investigation, site-related contamination is present in groundwater, soil and sediment, and surface water. Groundwater in the area is the only viable source of drinking water for the local community. An estimated 250 people live within a one mile radius of the site.

Residential wells in the area have been monitored periodically for the presence of contaminants. One sampling event (September 1989) identified the presence of trace concentrations of chlorobenzene (the maximum detected concentration was 18 $\mu\text{g/l}$, which exceeds the State drinking water standard of 4 $\mu\text{g/l}$) in three of seven private wells sampled. However, a subsequent sampling event (December 1989), and all previous sampling events, showed non-detectable levels in all private wells. Although no private drinking water wells are currently contaminated, the potential exists for the future contamination of residential wells above health-based criteria.

Currently, there are no completed exposure pathways associated with the MPS, however, the ATSDR and NJDOH have continued public health concerns regarding the past exposures to the residents previously residing at the site.

Per conversation with the Health Officer for the HCDOH, there is local concern about the proposed remediation plan for the MPS. Specifically, concern was raised about health risks of nearby residents during remediation and the impact of site remediation on the wetlands area.

Residents have expressed concerns about residential well sampling. They would like more frequent well testing and a greater total number of residential wells sampled.

CONCLUSIONS

1. Based on the Remedial Investigations and Feasibility Study reports, site related contamination is present in groundwater, soil and sediment, and surface water.
2. Conclusions that were made in the 1988 ATSDR Preliminary Health Assessment regarding the MPS being of public health concern remain valid, because past exposures

to site-related contaminants have occurred in the residents previously residing at the site. These types of exposures are no longer occurring.

3. Under present site conditions, there are no completed exposure pathways associated with the MPS, as long as the site remains secure from site trespassers.
4. The recommendation from the 1988 ATSDR Preliminary Health Assessment that the well survey be conducted was satisfied.
5. The recommendation from the 1988 ATSDR Preliminary Health Assessment calling for periodic monitoring of contaminant levels in the residential well water both on-site and off-site has been satisfied.
6. Groundwater contamination has been found in monitoring wells on-site, across Lower Kingtown Road (east of the site), and north of the Cakepoulin Creek (north of the site).
7. Residents living at the MPS have been exposed to site-related contaminants in the past. The previous public health concerns have been addressed by the ATSDR and NJDOH through consultations and the Preliminary Health Assessment. Although residential groundwater sampling results have indicated the presence of chlorobenzene in three wells (September 1989), these wells have been retested and shown to be non-contaminated.

RECOMMENDATIONS

After a review of the most recent documents and the current site conditions for the MPS, the ATSDR and the NJDOH have determined that, while no current human exposures are occurring at the present time, there is concern about exposure to the contaminated groundwater. At the MPS there is a potential for direct ingestion of contaminated water through potable wells that may become contaminated in the future. It is therefore recommended that monitoring of the private residential wells continue.

Previous evaluations by the ATSDR and the NJDOH have determined that past exposures to the previous residents have occurred. However, there is no ongoing current exposure at the site, therefore, there is no need for health consultation or addendum to the Preliminary Health Assessment.

It is further recommended that adequate site security be provided to prevent unauthorized access to the site. Site trespassing could lead to possible human exposure to contaminated soil.

New environmental, toxicological, health outcome data, or changes in conditions as a result of implementing the proposed remedial plan, may determine the need for additional actions at MPS.

Remedial activities specified in the ROD, when implemented, are sufficient to address remaining concerns of the ATSDR, the NJDOH, and the community regarding the site and are consistent with protection of the public health.

Health Activities Recommendations Panel (HARP) Statement

The data and information developed in the Site Review and Update for the Myers Property, Franklin Township, New Jersey, has been evaluated by ATSDR's Health Activities Recommendation Panel (HARP) for appropriate follow-up with respect to health activities. The panel determined that community health education currently being conducted by the local health department, who is sampling private wells, is appropriate. Although the former residents (single family) of the site have probably been exposed to site contaminants, no other public health actions are indicated at this time because the former residents were advised by ATSDR and EPA of the hazards posed by the site and the former residents have indicated that they took appropriate actions.

PUBLIC HEALTH ACTIONS

The Public Health Action Plan (PHAP) for the Myers Property site contains a description of the actions to be taken by ATSDR and/or NJDOH at or in the vicinity of the site subsequent to the completion of this Site Review and Update. The purpose of PHAP is to ensure that this site review and update not only identifies public health hazards, but provides a plan of action designed to mitigate and prevent adverse human health effects resulting from exposure to hazardous substances in the environment. Included, is a commitment on the part of ATSDR/NJDOH to follow-up on this plan to ensure that it is implemented. The public health actions to be implemented by ATSDR/NJDOH are as follows:

Actions Undertaken

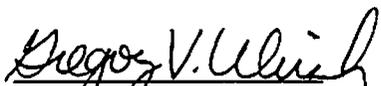
Public health actions, current site conditions, and proposed remedial activities have been evaluated within the context of human exposure pathways and relevant public health issues.

Actions Planned

No other public health actions are indicated at this time because the former site residents (single family) were advised by ATSDR and NJDOH of the hazards posed by the site and the residents have indicated they took appropriate actions.

CERTIFICATION

The Site Review and Update for the Myers 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.



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.



Division Director, DHAC, ATSDR

DOCUMENTS REVIEWED

1. Roy F. Weston, Inc., Residential Well Sampling Results, Myers Property Site, Franklin Township, Hunterdon County, New Jersey, September, 1992.
2. Record of Decision, Myers Property Site, USEPA, September 28, 1990.
3. Roy F. Weston, Inc., Update to the Draft Final Feasibility Study Report for the Myers Property Site, Franklin Township, Hunterdon County, New Jersey, July 1990.
4. Roy F. Weston, Inc., Draft Final Feasibility Study Report for the Myers Property Site, Franklin Township, Hunterdon County, New Jersey, February 1990.
5. Roy F. Weston, Inc., Draft Final Feasibility Study Report for the Myers Property Site, Franklin Township, Hunterdon County, New Jersey, September 1989
6. Preliminary Health Assessment for the Myers Property Site (Amended), Franklin Township, Hunterdon County, New Jersey, ATSDR, April 1989.
7. CDM Inc., Draft Final Remedial Investigation Report for the Myers Property Site, Franklin Township, Hunterdon County, New Jersey, March 1989.
8. Roy F. Weston, Inc., On Scene Coordinator's Report, CERCLA Removal Action, Myers Property Site, Franklin Township, Hunterdon County, New Jersey, 1988.
9. ATSDR Health Consultation, January 26, 1988.
10. Preliminary Health Assessment for the Myers Property Site, Franklin Township, Hunterdon County, New Jersey, ATSDR, November 1988.
11. ATSDR Health Consultation, July 23, 1987.
12. CDM Inc., Revised Project Operations Plan for the Myers Property Site, Franklin Township, Hunterdon County, New Jersey, December 1986.
13. CDM Inc., Draft USEPA Designated Activities Summary Report for the Myers Property Site, Franklin Township, Hunterdon County, New Jersey, October 1986.
14. ATSDR Health Consultation, October 10, 1986.
15. CDM Inc., Final Work Plan for the Remedial Investigation/ Feasibility Study Report for the Myers Property Site, Franklin Township, Hunterdon County, New Jersey, September 1986.

16. CDM Inc., Draft Project Operations Plan for the Myers Property Site, Franklin Township, Hunterdon County, New Jersey, June 1986.
17. CDM Inc., Draft Work Plan for the Remedial Investigation/ Feasibility Study Report for the Myers Property Site, Franklin Township, Hunterdon County, New Jersey, April 1986.
18. ATSDR Health Consultation, June 20, 1985.
19. ATSDR Health Consultation, April 24, 1984.

INTERVIEWS/PERSONAL COMMUNICATIONS:

1. Emergency & Remedial Response Division/USEPA:
Remedial Project Manager
2. Site Remediation Program/NJDEPE:
Site Manager
3. Hunterdon County Health Department:
Director
Principal Sanitarian
4. Elf Atochem North America:
Senior Environmental Engineer

PREPARERS OF REPORT

Preparers of Report:

Narendra P. Singh, M.D., M.S., C.I.H.
Research Scientist III
ATSDR Health Assessment Project
Environmental Health Service
New Jersey Department of Health

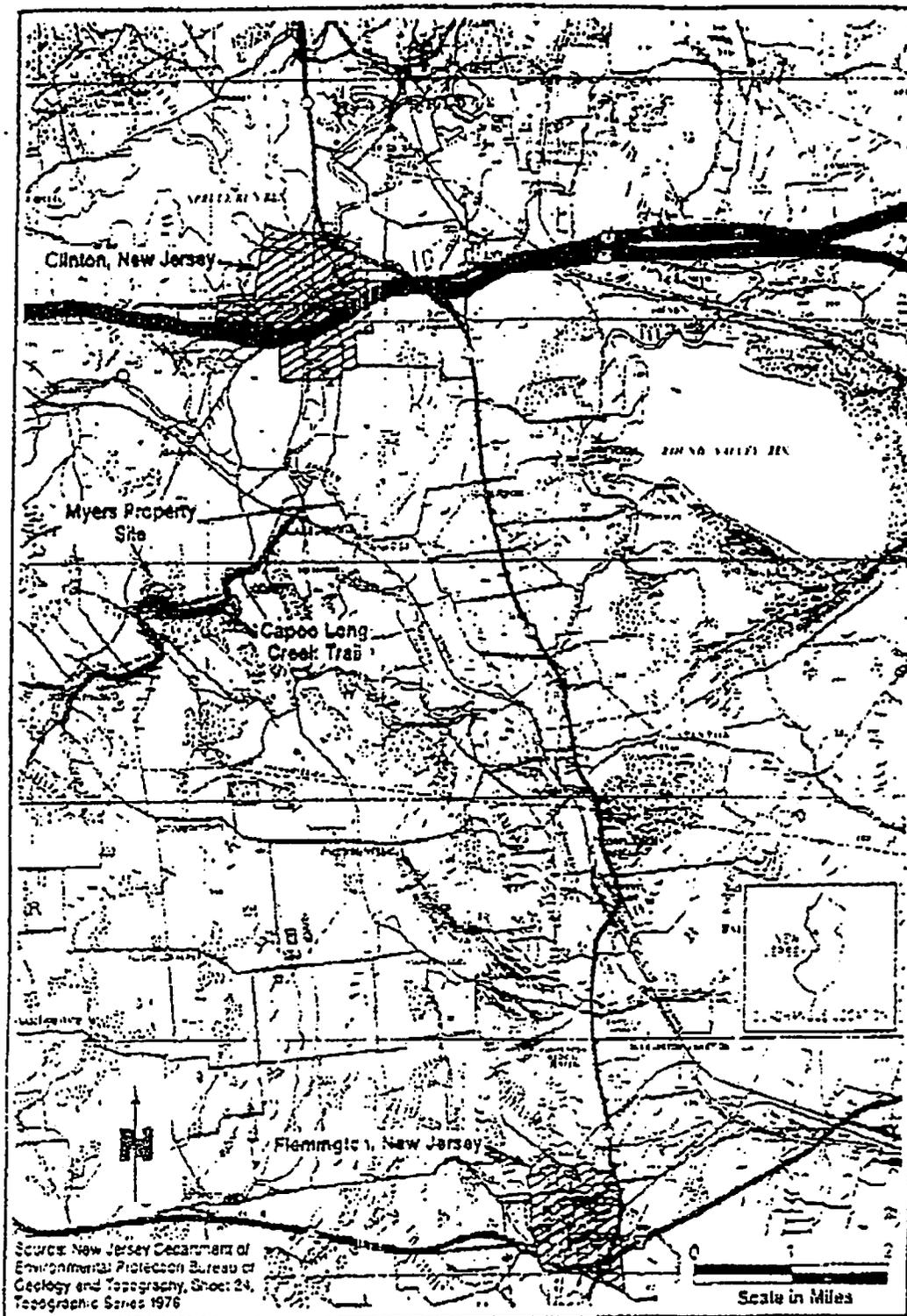
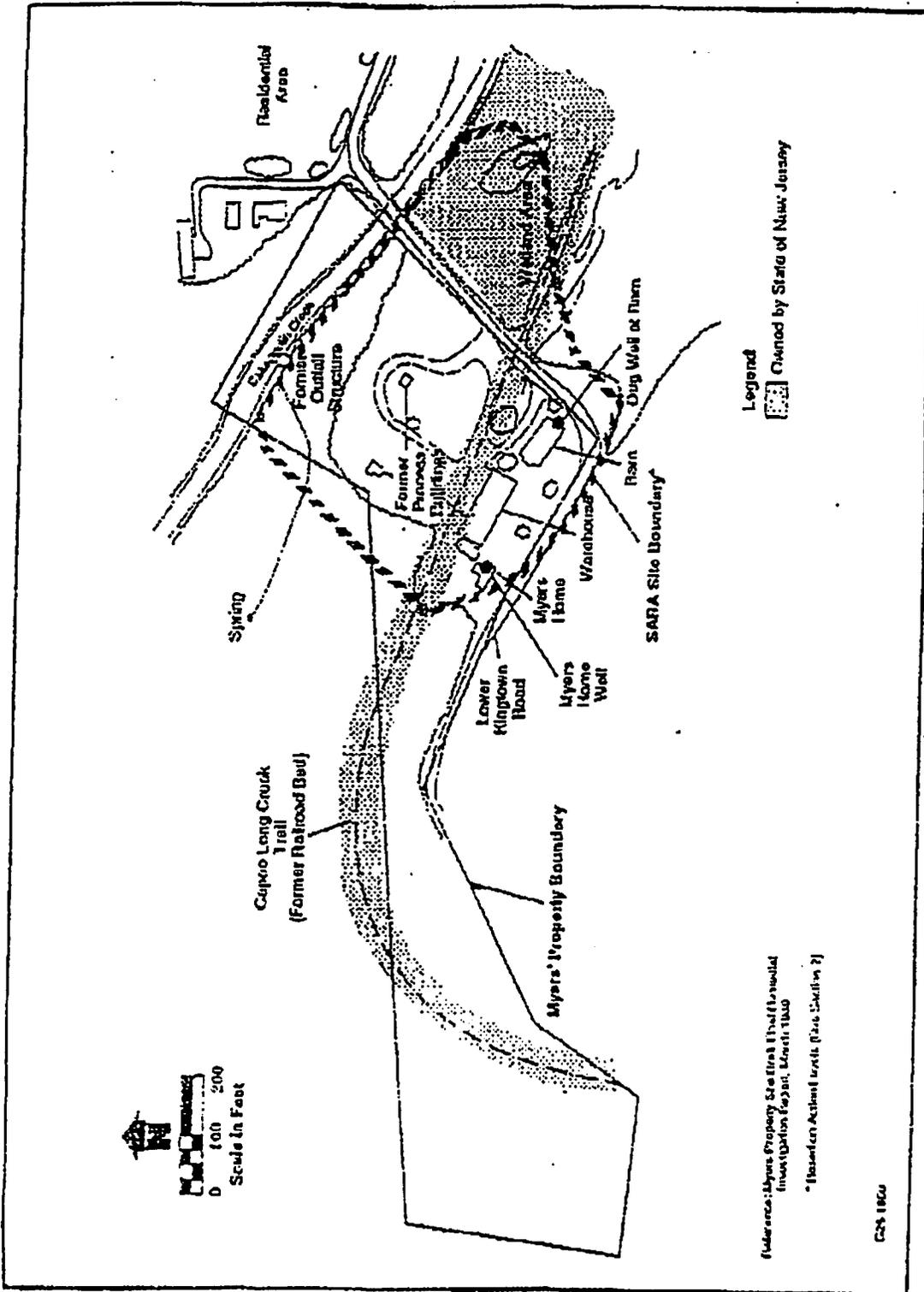


FIGURE 1 REGIONAL LOCATION MAP



Reference: Myers Property Site Final Draft Remedial Investigation Report, March 1990
 *Based on Aerial Photo (See Section 2)

CSX 1860

FIGURE 2 SITE DESCRIPTION OF MYERS PROPERTY SITE

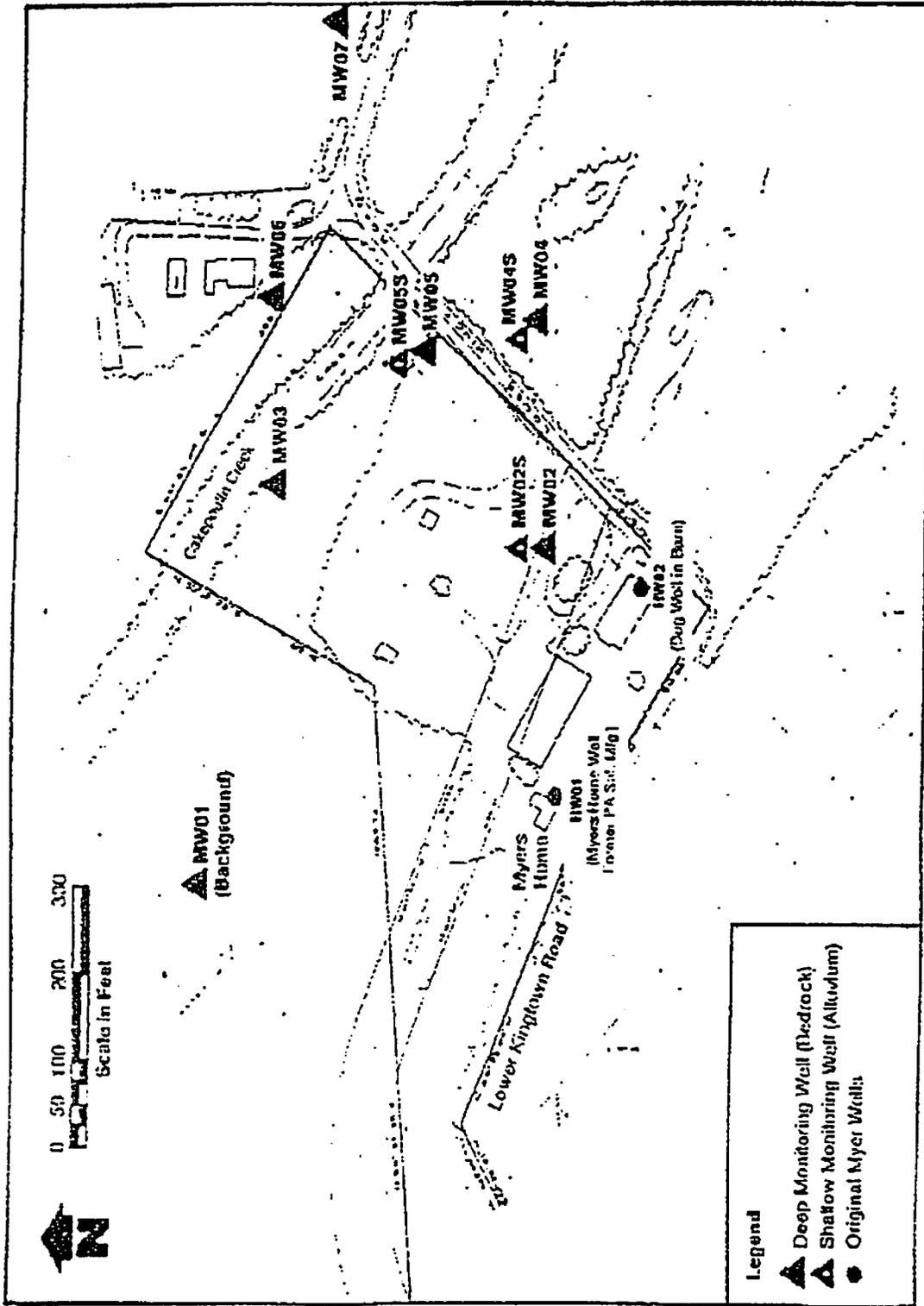


FIGURE 3 PHASE III GROUNDWATER SAMPLING POINTS, MYER'S PROPERTY SITE